

**OPINIONS AND DECLARATIONS
RENDERED BY THE INTER-
NATIONAL COMMISSION ON
ZOOLOGICAL NOMENCLATURE**

VOLUME 14

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the International Commission on Zoological Nomenclature

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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FOREWORD

The present volume—the fourteenth of the present Series—contains the fifth instalment of *Opinions, Declarations and Directions* adopted by the International Commission on Zoological Nomenclature since the close of the Fourteenth International Congress of Zoology at Copenhagen in 1953. In addition, during the same period a substantial start was made by the International Commission in the review of Rulings given in *Opinions* rendered prior to July 1948 which it undertook in accordance with a General Directive issued by the Thirteenth International Congress at its meeting held in Paris in July of that year. The decisions so taken have been embodied in volumes numbered as Sections of Volume 1 of the present Series. At the time of the completion of the present volume, Sections C and D had been completed (except for Index Parts) and two Parts of Section E had already appeared. Impressive as is the foregoing achievement, it is seen to be much more striking when account is taken of the fact that during the same period six other volumes (Volumes 4—9) and the greater part of a seventh volume (Volume 3) were published by the International Trust. Of these Volumes, the concluding portion of Volume 3 and the whole of Volumes 4 to 7 were devoted to the publication of *Opinions* and *Declarations* embodying decisions taken by the Commission at its Session held in Paris in 1948, while Volumes 8 and 9 contained *Opinions* and *Declarations* embodying decisions taken by the Commission in the period between the close of the Paris Congress in 1948 and the opening of the Copenhagen Congress in 1953. For the sake of completeness it should be noted that two *Declarations* adopted in 1954 were incorporated in Volume 6 in order to avoid the long delay in promulgation which, owing to the then existing backlog of cases, would otherwise have been unavoidable. It should be noted also that nine *Directions*

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embodying the result of the survey of the Rulings given in *Opinions* published in the period 1939—1947 were published in 1954 and were incorporated in Volumes 2 and 3, the volumes containing the *Opinions* so reviewed. When account is taken of this large additional volume of publications issued, it is seen that within a period of less than forty months the total number of *Opinions*, *Declarations* and *Directions* published amounted to the impressive total of three hundred and nineteen (*Opinions*, 241 ; *Declarations*, 17 ; *Directions*, 61).

2. The present volume contains nineteen *Opinions* (*Opinions* 417—435). In the immediately preceding volume a start was made with the publication of *Opinions* embodying decisions taken by the International Commission on applications published in Volume 9 of the *Bulletin of Zoological Nomenclature*. The present volume contains a further instalment consisting of thirteen *Opinions* based upon applications published in that volume of the *Bulletin* (the *Opinions* concerned being *Opinions* 417, 418, 422, 423, 425, 427—434). In addition the present volume contains one *Opinion* (*Opinion* 435) based upon an application published in the next volume of the *Bulletin* devoted to applications on individual cases, namely, Volume 11, no such applications having been published in Volume 10 of the *Bulletin* which was wholly devoted to the publication of documents relating to the Agenda for the Colloquium on Zoological Nomenclature held in Copenhagen in 1953. The remaining five *Opinions* published in the present volume contain decisions taken by the Commission on applications published in earlier volumes of the *Bulletin* which it had previously been found necessary to postpone for one reason or another. The *Opinions* concerned are *Opinions* 419—421, 424, and 426. Of these *Opinions*, the first three (*Opinions* 419—421), which were submitted by the same applicants and form a natural group, are based upon applications published in Volume 6 of the *Bulletin*. The postponement until the present volume of the Commission's decisions in these cases arose from the fact that subsequent to the submission of the applications in question the applicants asked that the proposals which they had submitted might be

amplified in certain respects. The fourth of the *Opinions* belonging to the foregoing group (*Opinion* 424), which is based upon an application originally published in Volume 1 of the *Bulletin* is concerned with a subject (the question of the species to be accepted as the type species of the genus *Formica* Linnaeus, 1758) on which the receipt in 1954 of additional information made it necessary for the Commission to undertake an entirely fresh examination of the issues involved. The last of the *Opinions* falling in this group (*Opinion* 426) which is based upon an application published in Volume 2 of the *Bulletin*, is concerned with certain ammonite names. In this case postponement until the present volume of the *Opinion* embodying the Commission's decision was due to a request on the part of the applicant for a modification of a portion of the proposals submitted, a request which made it necessary for supplementary investigations to be undertaken by the Office of the Commission and for a further vote to be taken by the Commission on the issues so disclosed.

3. The three *Declarations* included in the present volume are *Declarations* 27, 28 and 29. The first of these *Declarations* (*Declaration* 27) contains an interpretation of Rule (f) in Article 30 of the *Règles* which applies to the determination of the species to be accepted as the type species of a nominal genus established in substitution for a previously established such genus, a principle similar to that laid down by the Fourteenth International Congress of Zoology, Copenhagen, 1953, in relation to the interpretation of a nominal species established partly as a substitute for a previously established such species but in part based also upon certain specified specimens. *Declaration* 29 is also concerned with Article 30 of the *Règles*, though in this case the subject matter dealt with relates not to the interpretation of that Article but to a question of terminology arising in connection with one of the Rules there laid down. The Rule concerned is Rule (d) which prescribes the determination in certain cases of the type species of genera "by absolute tautonymy". By a Ruling given by the Commission many years ago in its *Opinion* 16 (a decision which in a clarified form was written into the *Règles* by the Paris Congress in 1948) an essentially different method of determining the type species of a nominal genus—namely, the citation in the synonymy of one, but not more than one, of

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the species originally included in a given genus of a pre-1758 univocal specific name consisting of the same word as the generic name—is to be accepted as coming within the scope of the foregoing Rule. The application of the expression “type species by absolute tautonymy” to the indication of a type species by the special method described above would clearly be inappropriate and confusing, and it was to overcome this difficulty that in the *Declaration* here under consideration the Commission introduced and defined the expression “type species by Linnean tautonymy” this expression being selected because it is largely in the works of Linnaeus that are to be found nominal genera to which this Special Rule is applicable. In *Declaration* 28 the Commission gave a clarification of the Rules regarding the giving of names to family-group taxa adopted in 1953 by the Copenhagen Congress in relation to the status to be accorded to names belonging to the above category in cases where the nominal family-group unit so established is based upon a misidentified type genus.

4. The single *Direction* (*Direction* 62) included in the present volume contains decisions by the Commission on the family-group-name implications of the Rulings given in the nineteen *Opinions* discussed above.

5. The present volume comprises 572 pages (T.P.—XX, i—xxxii, 1—520) and one Plate. This volume is of substantially the same size as previous volumes.

6. Of the nineteen *Opinions* included in the present volume three deal with names belonging to two different Classes of the Animal Kingdom and one deals simultaneously with names of a particular Class and with the status of an individual book, thus bringing the total number of cases up to twenty-three. Several of the applications relating to these cases were submitted by more than one author and when account is taken of this fact, the total number of applicants is seen to amount to thirty-three.

7. Three of the applications dealt with in the present volume were concerned with the status of books and the remaining

twenty with individual names. Of this latter group, nineteen (95 per cent.) involved the use by the Commission of its Plenary Powers. The use of those Powers was not involved in the applications relating to the status of individual books.

8. The twenty applications relating to individual names dealt with in the *Opinions* published in the present volume, when grouped by reference to the Classes of the Animal Kingdom to which the genera or species concerned belong, are distributed as shown in the following table. In the same table the applications are arranged so as to distinguish those which involved the use of the Commission's Plenary Powers from those which did not.

TABLE 1

Distribution of applications (a) by Classes of the Animal Kingdom and (b) by whether they involved the use by the Commission of its Plenary Powers

<i>Name of Class</i>	<i>Number of applications</i>		
	<i>Involving the use of the Plenary Powers</i>	<i>Others</i>	<i>Total</i>
Ciliophora	1	—	1
Anthozoa	1	—	1
Crustacea	3	—	3
Insecta	3	—	3
Gastropoda	3	—	3
Cephalopoda	5	—	5
Brachiopoda	3	—	3
Amphibia	—	1	1
Totals	19	1	20

9. When the thirty-three applicants are arranged by reference to the countries in which they are resident, applications are seen to have been received from the following countries (arranged in alphabetical order) :—

TABLE 2

Distribution of applicants by country of residence

<i>Country of Residence</i>	<i>Number of applicants</i>
Netherlands	3
Switzerland	2
United Kingdom	20
United States of America	8
Total	33

10. By the Rulings given in the *Opinions* comprised in the present volume, together with the Ruling given in the *Direction* referred to in paragraph 4 above, a total of 350 names have been added to the *Official Lists* and corresponding *Official Indexes*

relating to specific names, generic names, family-group names and the titles of zoological works. The distribution of these entries is seen to be as follows :—

TABLE 3

**Additions to the “ Official Lists ” and “ Official Indexes ”
respectively**

<i>Category</i>	<i>Official Lists</i>	<i>Official Indexes</i>
Specific Names	50	35
Generic Names	29	188
Family-Group Names	23	22
Titles of Works	—	3
Totals	102	248

11. The twenty cases dealing with individual names published in the present volume contain 52 comments from interested specialists. In some instances these comments are joint comments from two or more specialists and in several cases specialists commented on applications which dealt with more than one Class of the Animal Kingdom. When account is taken of these facts, a total number of 89 specialists contributed comments in the present volume. In addition, 31 comments were received on the status of individual books.

12. If the comments relating to individual names are grouped according to the Class in the Animal Kingdom to which the genus or species concerned belongs, the distribution of the comments is found to be as follows :—

TABLE 4

Distribution of comments on applications relating to individual names, by Classes of the Animal Kingdom

<i>Name of Class</i>	<i>Number of Comments</i>
Ciliophora	1
Anthozoa	5
Crustacea	2
Insecta	12
Gastropoda	13
Cephalopoda	7
Brachiopoda	9
Amphibia	3
Total	52

13. When the authors of the comments contained in the *Opinion* published in the present volume are grouped by reference

to their country of residence, the distribution is found to be as follows :—

TABLE 5

Distribution of comments on applications, by country of residence of the specialists concerned

<i>Country of Residence</i>	<i>Number of Comments</i>
British West Indies	1
Czechoslovakia	1
Denmark	1
France	1
Germany	5
Japan	1
New Zealand	1
United Kingdom	22
United States of America	56
Total	89

14. As in the case of Volume 12 and preceding volume in this Series, the Commission is indebted to Miss Mary Cosh, M.A.,

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for the preparation of the indexes of the present volume. In style and scope these indexes follow exactly the models laid down for earlier volumes.

FRANCIS HEMMING

*Secretary to the International Commission
on Zoological Nomenclature*

28 Park Village East,
Regent's Park,
LONDON, N.W.1.

17th May 1957.

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Edited by

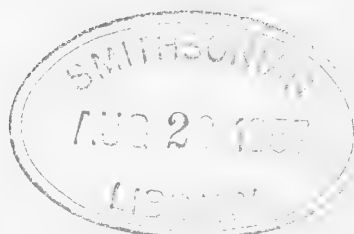
FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

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DECLARATION 27

Clarification of the question of the species to be accepted under Rule (f) in Article 30 as the type species of a nominal genus established as a substitute for a previously established such genus but with a designated type species different from that of the nominal genus so replaced



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Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

DECLARATION 27

CLARIFICATION OF THE QUESTION OF THE SPECIES TO BE ACCEPTED UNDER RULE (f) IN ARTICLE 30 AS THE TYPE SPECIES OF A NOMINAL GENUS ESTABLISHED AS A SUBSTITUTE FOR A PRE- VIOUSLY ESTABLISHED SUCH GENUS BUT WITH A DESIGNATED TYPE SPECIES DIF- FERENT FROM THAT OF THE NOMINAL GENUS SO REPLACED

DECLARATION :—(1) Where a generic name, when first published, is expressly stated to be a substitute (e.g., by the use of such an expression as “nom. nov.” or “nom. mut.”) for a previously published generic name but where the author of the substitute name designates as the type species of the genus bearing that name a nominal species other than that which is the type species of the genus the name of which is so replaced, the type species of the genus bearing the substitute name is in all circumstances the nominal species which is the type species of the genus the name of which is so replaced.

I. THE STATEMENT OF THE CASE

On 22nd October 1954 Mr. Francis Hemming (*Secretary to the International Commission on Zoological Nomenclature*) submitted to the International Commission a request for the adoption

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of a *Declaration* clarifying the question of the species to be accepted as the type species of a nominal genus established as a substitute for a previously established such genus but with a designated type species different from that of the nominal genus the name of which was so replaced. The immediate cause for the submission of this application was that the foregoing problem was involved in connection with the generic name *Neanura* MacGillivray, 1893 (Class Insecta, Order Collembola), one of a number of names involved in a case centred around the generic name *Achorutes* Templeton, 1835, which had been submitted to the International Commission by M. Herman Gisin (*Muséum d'Histoire Naturelle, Genève*) and on which a decision could not be taken by the Commission until a Ruling had been given by it on the question of principle dealt with in the present *Declaration*. M. Gisin's application in regard to the foregoing generic names (Z.N.(S.) 303) was published on 31st January 1955 (Gisin, 1955, *Bull. zool. Nomencl.* **11** : 35—37) in the same Part of the *Bulletin of Zoological Nomenclature* as that containing Mr. Hemming's request for the present *Declaration*. The paper submitted by Mr. Hemming was as follows :—

Request for a “ Declaration ” as to the type species of a nominal genus established as a substitute for a previously established nominal genus but with a designated type species different from that of the nominal genus so replaced

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

The object of the present application is to invite the International Commission on Zoological Nomenclature to adopt a *Declaration* defining the species to be accepted as the type species of a nominal genus established as a substitute for a previously established nominal genus in a case where the author of the substitute name designates

as the type species a species other than that which is the type species of the nominal genus so replaced.

2. The following is an imaginary example of the class of case for which a Ruling is now sought :—

- (a) In 1820 an author “ A ” established a nominal genus to which he gave the name *X-us*. Either author “ A ” himself designated or indicated the nominal species *O-us p-us* as the type species of the genus *X-us* or some later author validly selected that species to be the type species of the genus *X-us*.
- (b) In 1870 an author “ B ” observed that the generic name *X-us* “ A ”, 1820, was invalid by reason of being a junior homonym of the generic name *X-us* “ F ”, 1772. Author “ B ” accordingly replaced the name *X-us* “ A ” by the new name *Qu-a*. When publishing the name *Qu-a*, author “ B ”, by using the expression “ *nom. nov. pro* ” or some equivalent expression, made it absolutely clear that he was publishing a substitute name and was not establishing a new nominal genus.
- (c) Unfortunately author “ B ” did not know that the nominal species *O-us p-us* had already been designated, indicated or selected as the type species of the genus *X-us* “ A ”, 1820, and thought that the type species of that genus was a quite different species, namely *O-us y-us*. Accordingly, when establishing the substitute genus *Qu-a*, author “ B ” added that the type species of the substitute genus *Qu-a* was the nominal species *O-us y-us*.
- (d) The question on which a *Declaration* is now sought is whether the type species of *Qu-a* “ B ”, 1870, is :—
- (ii) *O-us p-us*, the species which is the type species of the genus *X-us* “ A ”, 1820, for which the genus *Qu-a* “ B ”, 1870, was established as a substitute ;
- or
- (ii) *O-us y-us*, the species designated as the type species of the substitute genus *Qu-a* by the author “ B ”, when publishing that generic name.

3. An exactly similar problem arises where an author publishes a generic name as a substitute for the name of some previously established

nominal genus for which no species had been designated or indicated as the type species by the original author and for which at the date in question no one of the originally included species had been selected by a later author to be the type species, if the author of the substitute generic name designates for the genus so named a nominal species which was not one of those included by the original author in the genus, the name of which is so replaced.

4. The foregoing problems raise an issue of principle on which it is desirable on practical grounds that a decision should be reached as soon as possible. Moreover, the first of these two problems has already arisen in the case of the name *Neanura* MacGillivray, 1893, in Dr. H. Gisin's application relating to the name *Achorutes* Templeton, 1835 (Z.N.(S.) 303).¹

5. Fortunately, there exists in the present case a precedent set by the Fourteenth International Congress of Zoology, Copenhagen, 1953, for that Congress considered the exactly parallel case which arises where an author publishes a new specific name which he states is a substitute name for some previously published specific name but for which also he gives a description based upon particular specimens, which in fact are referable not to the species which bears the name so replaced but to some other species. On this question the Copenhagen Congress decided to insert the following provision in Article 31 of the *Règles*: "Where a specific name is expressly stated to be a substitute (e.g., by the use of such an expression as 'nom. nov.' or 'nom. mut.') for a previously published name but is at the same time applied to particular specimens, the species to which the new name applies is in all circumstances that to which the previously published name is applicable" (1953, *Copenhagen Decisions zool. Nomencl.* : 75—76, Decision 142).

6. **Recommendations** : In the light of the foregoing decision by the Copenhagen Congress at the species-name level, I recommend that the Commission should now adopt the following *Declaration* clarifying the meaning of the *Règles* in relation to the corresponding problem at the generic-name level :—

PROPOSED DECLARATION : Where a generic name, when first published, is expressly stated to be a substitute (e.g., by the use of such an expression as "nom. nov." or "nom. mut.") for a previously published generic name but where the author of the substitute name designates as the type species of the genus bearing that name a nominal species other than that which is the type species of the genus, the name of which

¹ The decision which in the light of the present *Declaration* has been taken by the International Commission in regard to the names *Achorutes* Templeton and *Neanura* MacGillivray has been embodied in *Opinion* 435 which is being published as Part 21 of the present volume (425—458).

is so replaced, the type species of the genus bearing the substitute name is in all circumstances the nominal species which is the type species of the genus, the name of which is so replaced.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon receipt of Mr. Hemming's application the question of the adoption of a *Declaration* regarding the interpretation of Rule (f) in Article 30 in the terms recommended was allotted the Registered Number Z.N.(S.) 867.

3. Publication of the present application : The present application was sent to the printer on 22nd November 1954 and was published in Part 2 of Volume 11 of the *Bulletin of Zoological Nomenclature* on 31st January of the following year (Hemming, 1955, *Bull. zool. Nomencl.* **11** : 35—37).

4. Issue of Public Notices : Public Notice of the possible adoption of a *Declaration*, as recommended in the application submitted in the present case, was given in like manner as though the foregoing application involved the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers on 31st January 1955 (a) in Part 2 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Mr. Hemming's application was published) and (b) to the other prescribed serial publications. In addition such Notice was given also to certain general zoological serial publications in Europe and America.

5. No objection received : The publication of the present application elicited no objection to the action proposed from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

6. Issue of Voting Paper V.P.(55)15 : On 5th August 1955, a Voting Paper (V.P.(55)15) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal for the adoption of a *Declaration* clarifying the interpretation of the *Règles* in relation to the question of the type species of a genus established as a substitute genus as set out in paragraph 6 on page 37 of Volume 11 of the *Bulletin of Zoological Nomenclature*" [i.e. in the paragraph numbered as above in the paper reproduced in the first paragraph of the present *Declaration*].

7. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 5th November 1955.

8. Particulars of the Voting on Voting Paper V.P.(55)15 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)15 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-four (24) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Riley ; Stoll ; Hering ;
Bradley (J.C.) ; Lemche ; Prantl ; Jaczewski ; Hankó ;
Mayr ; do Amaral ; Esaki ; Kühnelt ; Dymond ; Key ;
Mertens ; Bonnet ; Hemming ; Miller ; Sylvester-
Bradley ; Cabrera ; Boschma ; Tortonese ;

(b) *Negative Votes, one (1) :*

Vokes ;

(c) *Voting Papers not returned :*

None.

9. Declaration of Result of Vote : On 6th November 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55) 15, signed a Certificate that the Votes cast were as set out in paragraph 8 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

10. Preparation of the present “ Declaration ” : On 14th May 1956 Mr. Hemming prepared the present *Declaration* and at the same time signed a Certificate that the terms of that *Declaration* were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)15.

11. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Declaration* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

12. The present *Declaration* shall be known as *Declaration Twenty-seven (27)* of the International Commission on Zoological Nomenclature.

DONE in London, this Fourteenth day of June, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

**OPINIONS AND DECLARATIONS
RENDERED BY THE INTER-
NATIONAL COMMISSION ON
ZOOLOGICAL NOMENCLATURE**

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

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DECLARATION 28

Clarification of the status of a name given to a family-
group taxon based upon a misidentified type genus

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN DECLARATION 28

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(arranged in order of precedence by reference to date of election or of most recent re-election as prescribed by the International Congress of Zoology)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(1st January 1947)

Senor Dr. Angel CABRERA (*La Plata, Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (12th August 1953) (*Vice-President*)

Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*) (12th August 1953) (*President*)

Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*) (12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N. Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANIL (*Národní Museum V Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

DECLARATION 28

CLARIFICATION OF THE STATUS OF A NAME GIVEN TO A FAMILY-GROUP TAXON BASED UPON A MISIDENTIFIED TYPE GENUS

DECLARATION :—(1) Except as is provided in (2) below, an author publishing a new family-group name is to be assumed to have correctly determined the nominal genus selected by him as the type genus of the nominal family-group taxon so established.

(2) Where in the opinion of later authors there is evidence in the original publication that the author of a family-group name treated the type genus of the family-group taxon so named as having as its type species some nominal species other than that which either already was or later became the type species, the case is to be referred to the International Commission on Zoological Nomenclature for decision.

(3) On receipt of an application submitted under (2) above, it shall be the duty of the International Commission to give a Ruling on the question (a) whether the author of the family-group name in question correctly determined the genus selected by him to be the type genus of the nominal family-group taxon so established or (b) whether he misdetermined that genus and thus in effect established a family-group taxon based upon a different genus bearing an invalid homonymous name.

(4) Where the said Commission gives a Ruling that a given nominal family-group taxon was based upon a misdetermined type genus, the family-group name in question is to be rejected as possessing no rights under either the Law of Priority or the Law of Homonymy.

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I. THE SUBJECT MATTER OF THE PRESENT “ DECLARATION ”

On 15th December 1954 following extensive correspondence with the Office of the International Commission on Zoological Nomenclature, M. Hermann Gisin (*Muséum d'Histoire Naturelle, Genève*) submitted to the International Commission an application for the purpose of putting an end to the long-standing difficulties associated with the generic names *Achorutes* Templeton, 1835 *Hypogastrura* Bourlet, 1839, and *Neanura* MacGillivray, 1893 (Class Insecta, Order Collembola). This application at the family-group-name level raised an issue regarding the status of a name given to a family-group taxon by an author who takes as the type species of the type genus of the taxon so named some species other than that which is the type species of that genus under the *Règles*. At that time there existed no authoritative Ruling as to the status of a family-group name so published. It was necessary, however, for the family-group names involved in this case to be dealt with in the application to be submitted to the Commission. On this issue M. Gisin took the view that a name of the kind discussed above ought not to be treated as possessing any status in zoological nomenclature and that the publication of such a name ought not to prejudice a later-published family-group name having the type species of the type genus correctly determined under the *Règles*. It was on this basis therefore that M. Gisin framed the proposals which he submitted to the Commission. The particular family-group name in which the foregoing problem was involved that was included in M. Gisin's application was the name ACHORUTINI Börner, 1901, which, as Börner's paper clearly showed was based upon an erroneous determination of the type species of the type genus of the family-group taxon so named, Börner in that paper having incorrectly assumed that *Achorutes viaticus* Tullberg, 1872, was the type species of *Achorutes* Templeton, 1835, the type genus of the new family-group taxon in question. M. Gisin's proposals regarding the present matter are so closely interwoven with those relating to the generic names also involved that it has been decided that the more convenient course would be to reproduce M. Gisin's application in full in the *Opinion* containing the Commission's decision on the generic-name problems involved rather than to divide M. Gisin's paper into two portions,

the one dealing with the generic-name problems and the other with the family-group-name problem discussed above. Accordingly, M. Gisin's application has been reproduced *in extenso* in *Opinion* 435¹ containing the Commission's decision regarding the generic name *Achorutes* Templeton and associated names which is being rendered simultaneously with the present *Declaration* and to confine the statement of the case in the present *Declaration* to the foregoing summary of the issue involved and the manner in which M. Gisin proposed that it should be dealt with.

II. THE SUBSEQUENT HISTORY OF THE PRESENT CASE

2. Registration of the present application : Upon receipt from M. Gisin of his first communication relating to the generic name *Achorutes* Templeton and to certain other generic names in the Order Collembola, the problems so involved were provisionally allotted the Registered Number Z.N.(S.) 199. When work was commenced on the individual cases submitted by M. Gisin, the problems associated with the name *Achorutes* Templeton were allotted the separate Registered Number Z.N.(S.) 303. Later, in conformity with the procedural decisions described in paragraph 6 below to separate the portions of M. Gisin's application it was decided that, while all matters relating to the name *Achorutes* Templeton and other individual names should continue to be dealt with on the File referred to above, a new File should be opened for the consideration of the question of principle in regard to the status of a family-group name based upon a misidentified type genus involved in M. Gisin's application. The new File so opened was allotted the Registered Number Z.N.(S.) 1038.

3. Publication of M. Gisin's application : M. Gisin's application involving jointly (a) certain problems relating to the name *Achorutes* Templeton and other names and (b) the problem of

¹ The *Opinion* here referred to is being published in the immediately following Part (Part 21) of the present volume.

the status of a name published for a family-group taxon based upon an erroneously determined type genus was sent to the printer on 31st December 1954 and was published on 31st January 1955 in Part 2 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Gisin, 1955, *Bull. zool. Nomencl.* **11** : 38—48).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56) Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in relation to certain matters dealt with in M. Gisin's application was given on 31st January 1955 (a) in Part 2 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which M. Gisin's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to seven entomological serials in Europe and America.

5. No objection received : Neither the publication of M. Gisin's application in the *Bulletin of Zoological Nomenclature* nor the issue of the Public Notices in regard thereto specified in paragraph 4 above elicited any objection to any part of the action proposed.

6. Procedural arrangements decided upon at the close of the Prescribed Six-Month Period following the publication of the present application in the "Bulletin of Zoological Nomenclature" : Following the close of the Prescribed Six-Month Period following the publication of M. Gisin's application in the *Bulletin of Zoological Nomenclature* the procedure to be adopted in placing that case before the Commission for decision was reviewed by the Secretary who on 8th November 1955 executed a Minute in which, after recalling the General Directive issued by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 136—137) that questions affecting the interpretation of the *Règles* be dealt with in the "Declarations" Series and no longer be included in *Opinions* relating

to individual names, directed that the application submitted by M. Gisin be divided into two portions, the first with the question of the status of names given to family-group taxa when based upon a misidentified type genera, a question on which a decision was a pre-requisite to the adoption of by the Commission of a Ruling upon a part of the case submitted by M. Gisin, the second concerned with the name *Achorutes* Templeton and with the other individual names raised in the application submitted by that specialist.

7. Bipartite proposals submitted to the International Commission in January 1956 : In conformity with the procedural arrangements described in paragraph 6 above, two Voting Papers (Voting Papers V.P.(56)2 and V.P.(56)3) were submitted to the Commission in connection with M. Gisin's application. The first of these was concerned with the question of principle involved, the second with the case of the name *Achorutes* Templeton. The proposals in regard to that name which were thus laid before the Commission were those which M. Gisin had summarised in paragraph 12 of his application (*Bull. zool. Nomencl.* **11** : 46—48). The terms of the proposed *Declaration* involved in the foregoing application were as follows :—

Where, when publishing a name for a nominal family-group taxon, an author takes as the type species of the type genus of that taxon some species other than that which is the type species under the *Règles*, the family-group name so published is to be rejected as possessing no status under the Law of Priority, and the publication of such a name is not to invalidate the subsequent publication of a name for a nominal family-group taxon with the same genus as type genus but with the type species of that genus correctly determined in accordance with the provisions of Article 30 of the *Règles*.

Example : The publication in 1901 of the name ACHORUTINI with *Achorutes* Templeton, 1835, as type genus but with the type species of that genus incorrectly determined as *Achorutes viaticus* Tullberg, 1872, did not invalidate the family-group name ACHORUTINAE Börner, 1906, with the same genus as type genus but with the type species of that genus correctly determined as *Achorutes muscorum* Templeton, 1835.

8. Submission to the International Commission of a revised draft in the present case in July 1956 : When in April 1956 the Prescribed Voting Period for the two Voting Papers (V.P.(56)2 and V.P.(56)3) came to a close it was found that the proposals submitted therewith had been approved by the International Commission but that as regards the proposal submitted with the first of those Voting Papers important comments on the form of presentation to be adopted had been furnished by four Members of the International Commission. In these circumstances the Secretary came to the conclusion that the correct course would be to bring these comments to the attention of the Commission and at the same time to submit for consideration a revised formula for the proposed *Declaration* which would take account of the comments referred to above. Accordingly, on 31st July 1956 Mr. Hemming submitted a further paper to the Commission in regard to the present case, together with a new Voting Paper (V.P.(O.M.)(56)15)². The first two paragraphs of the paper so submitted contained a brief recital of the principal points involved in the present case ; the remainder was as follows :—

Status of a family-group name based upon an incorrectly determined type genus

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

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3. Both the foregoing proposals were approved in the votes taken on the foregoing Voting Papers but in the case of the proposed *Declaration* an important question of presentation was raised by four members of the Commission (Boschma ; Holthuis ; Jaczewski ; Sylvester-Bradley) when returning their completed Voting Papers. The point made by these Commissioners was that it would be anomalous if the provision to be adopted for dealing with the problem presented by names for family-group taxa based upon erroneously determined type genera were to be different in kind from that already adopted for dealing with the very similar problem involved in the interpretation of genera based upon erroneously determined type species. There appears to me to be great force in this comment and the purpose of the present note is to re-examine the question of the form of presentation to be employed in formulating the *Declaration*, the adoption of which

² See paragraph 9 below

was approved in principle by the vote taken by the Commission in its vote on Voting Paper V.P.(56)2.

4. The problem of the treatment to be accorded to the names of genera based upon misidentified type species was among the first to emerge after the adoption in 1901 of the present *Règles*. A real difficulty was involved, for those zoologists who were averse from name-changing on narrow technical grounds were forced to rely on subjective arguments regarding the intentions of the authors of the names of nominal genera established in this defective fashion, while those who rightly pointed out that subjective taxonomic judgments ought not to have any part in determining nomenclatorial problems found it necessary to become the champions of name-changing in cases of this sort. Twice during the period the Commission intervened in this dispute, first in 1914 in *Opinion 65* (*Smithson. Publ.* 2256 : 152—169) and again in 1935 at Lisbon in *Opinion 168* (1945, *Ops. Decls. int. Comm. zool. Nomencl.* 2 : 411—430). In the first of these *Opinions* the Commission leaned towards the views of the objectivists, though to a very limited extent it attempted also to give some satisfaction to those zoologists whose primary interest in nomenclature was the maintenance of established usage. In the later of these *Opinions* the Commission took the same general line but in response to the growth during the twenty years following the publication of *Opinion 65* of the desire for stability in nomenclature, it adopted a more conciliatory attitude to zoologists of this group by issuing an invitation to zoologists to submit to it for decision cases where it would be clearly contrary to the facts to assume that the author of a given generic name had correctly identified the species which he designated as the type species or which later was selected as such.

5. The present case was, however, a problem for which no genuine solution was possible as long as the Congress was unwilling to consider proposals for the amendment of the *Règles*, for what was needed was the insertion in the *Règles* of a provision which on the one hand unequivocally laid down the proposition that in general the author of a generic name must be assumed to have identified correctly the nominal species placed by him in the genus so named, but on the other hand provided also a mechanism for avoiding undesirable name-changing in those cases where specialists were of the opinion that such an assumption would be contrary to the facts and where in fact the generic name was currently used in the sense which it was considered had been the intention of the author of the generic name. The willingness shown by the Thirteenth International Congress of Zoology at Paris in 1948 to grapple with difficult problems which had been burked by earlier Congresses provided an opportunity for a settlement of this problem in a realistic manner which, while meeting in full the point of view of the objectivists, at the same time provided machinery to secure that nomenclatorial stability should not be

endangered (1950, *Bull. zool. Nomencl.* 4 : 158—159). The main features of the provisions so adopted were (1) the affirmation of the principle that the author of a generic name was to be assumed to have correctly identified the species placed by him in his new genus and (2) the adoption of a provision that, where in the opinion of later workers, the foregoing assumption would run counter to the facts, the case was to be submitted to the Commission whose duty it would then become to use its Plenary Powers to designate as the type species of the genus the nominal species intended by the original author or a species consistent with the intentions of that author, save where such a designation would itself lead to name-changing, in which case it became the duty of the Commission to direct that the nominal species cited by the author of the generic name be accepted as the type species of the genus in question. This matter was considered again by the Fourteenth International Congress of Zoology, 1953, which made some minor amendments in the terms of the decision reached by the Paris Congress, but these did not affect in any way the main structure of that decision (1953, *Copenhagen Decisions zool. Nomencl.* : 68—69, Decisions 127, 128).

6. Having now examined the present state of the *Règles* in relation to nominal genera established on misidentified type species, we are in a position to consider how far those provisions could be made applicable to the somewhat similar problem presented by nominal family-group taxa based on misdetermined type genera. In the light of the comments received in this case during the voting on Voting Paper V.P.(56)2, I am of the opinion that the logical course to adopt for the purpose of giving effect to the decision in principle then taken would be to incorporate in the proposed *Declaration* the principle that the author of a family-group name is to be assumed to have correctly determined the genus selected by him to be the type genus of the nominal family-group taxon so established, but that this should be qualified to provide that, where, in the opinion of later workers, the author of the family-group concerned misdetermined the genus which he selected to be the type genus of his new nominal family-group taxon, the case is to be referred to the Commission for decision. So far the proposed Ruling would be exactly parallel to the existing provisions in regard to the determination of genera based upon misidentified type species. I suggest also, that, again following the general pattern of the rules relating to genera based upon misidentified type species, the proposed Ruling should make it the duty of the Commission, when such a case was referred to it, to give a Ruling as to whether the nominal family-group taxon concerned was based upon a misdetermined type genus or not. In the case of a genus based upon a misidentified type species, the Commission, when varying the type species of the genus concerned, is required to act under its Plenary Powers. This is necessary because in such a case it must always be a matter for subjective (taxonomic) judgment whether the author of a

generic name correctly identified the nominal species placed by him in his new genus. In the case, however, of family-group names the position is otherwise, for here it is a matter of objectively ascertainable fact whether or not the author of the family-group name took as the type species of the type genus the nominal species which is in fact the type species under the *Règles* or a species consistent therewith. At the family-group-name level therefore the required Ruling is one which it will be possible for the Commission to give under its ordinary powers without resort to its Plenary Powers. Finally, it is necessary to consider what is to be the status of a family-group name after the Commission has given a Ruling that the nominal family-group taxon was based upon a misdetermined type genus. At this point the present problem differs radically from that presented by a genus based upon a misidentified type species. For in that case the object of making an application to the Commission is to secure that the generic name concerned shall be used in the sense intended by its original author, while at the family-group-name level the object of the application to the Commission will be to get rid of a family-group name based upon a misdetermined type genus, in order to make way for a later homonymous family-group name based upon a correct determination of the same type genus. On this point the Commission by its vote on Voting Paper V.P.(56)2 has taken the view that a family-group name rejected on the above ground possesses no status in zoological nomenclature and that "the publication of such a name is not to invalidate the subsequent publication of a name for a nominal family-group taxon with the same genus as type genus but with the type species of that genus correctly determined in accordance with the provisions of Article 30 of the *Règles*". This, it is suggested, is the right way in which to deal with this part of the problem, for it is strictly logical and in addition alone provides the means for securing the object desired in cases of this kind.

7. It is accordingly recommended that the form of the *Declaration* adopted by the Commission in principle by its vote on Voting Paper (56)2 should be remodelled so as to secure that, so far as may be practicable, it shall conform with the lines laid down in the existing provisions relating to the determination of nominal genera based upon misidentified type species. For this purpose I propose that the vote taken on the foregoing Voting Paper be treated as having been an informal preliminary vote and that a substantive vote be now taken in the light of the considerations advanced in the present paper. For this purpose I submit for the consideration of the Commission a revised formula designed on the one hand to take account of the substance of the decision taken in principle on Voting Paper V.P.(56)2 and on the other hand to harmonise the form of that decision with the provisions already inserted in the *Règles* in regard to the analogous problem presented by genera based on misidentified type species. The formula so prepared is given in the Annexe to the present paper.

ANNEXE

“ Declaration ” relating to the status of family-group names based upon misdetermined type genera (Voting Paper V.P.(56)2)

Revised draft of proposed wording modelled on the existing provisions in the “ Règles ” relating to the interpretation of nominal genera based upon misidentified type genera

(1) Except as is provided in (2) below, an author publishing a new family-group name is to be assumed to have correctly determined the nominal genus selected by him as the type genus of the nominal family-group taxon so established.

(2) Where in the opinion of later authors there is evidence in the original publication that the author of a family-group name treated the type genus of the family-group taxon so named as having as its type species some nominal species other than that which either already was or later became the type species, the case is to be referred to the International Commission on Zoological Nomenclature for decision.

(3) On receipt of an application submitted under (2) above, it shall be the duty of the International Commission to give a Ruling on the question (a) whether the author of the family-group name in question correctly determined the genus selected by him to be the type genus of the nominal family-group taxon so established or (b) whether he misdetermined that genus and thus in effect established a family-group taxon based upon a different genus bearing an invalid homonymous name.

(4) Where the Commission gives a Ruling that a given nominal family-group taxon was based upon a misdetermined type genus, the family-group name in question is to be rejected as possessing no rights under either the Law of Priority or the Law of Homonymy.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

9. Issue of Voting Paper V.P.(O.M.)(56)15 : On 31st July 1956 a Voting Paper (V.P.(O.M.)(56)15) was issued in which the Members of the Commission were invited to vote either for, or against, “ the proposal for the remodelling on the lines of the

provisions in the *Règles* relating to the status of generic names based upon misidentified type species of the *Declaration* in regard to the status of names published for nominal family-group taxa based upon misdetermined type genera approved in principle by the vote taken on Voting Paper V.P.(56)2, as recommended in the Annexe to the paper bearing the Registered Number Z.N.(S.) 1038, submitted by the Secretary simultaneously with the present Voting Paper ” [i.e. in the Annexe to the paper reproduced in paragraph 8 of the present *Declaration*].

10. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 31st August 1956.

11. Particulars of the Voting on Voting Paper V.P.(O.M.)(56)15 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(56)15 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-four (24) Commissioners (arranged in the order in which Votes were received) :*

Riley ; Bodenheimer ; Prantl ; Boschma ; Holthuis ;
 Vokes ; Hering ; Mertens ; Bradley (J.C.) ; Stoll ;
 Sylvester-Bradley ; Esaki ; do Amaral ; Tortonese ;
 Hankó ; Mayr ; Cabrera ; Lemche ; Hemming ;
 Dymond ; Kühnelt ; Miller ; Bonnet ; Jaczewski ;

(b) *Negative Votes, one (1) :*

Key ;

(c) *Voting Papers not returned :*

None.

12. Declaration of Result of Vote : On 1st September 1956, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(56)15, signed a Certificate that the Votes cast were as set out in paragraph 11 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

13. Preparation of the present "Declaration" : On 7th September 1956 Mr. Hemming prepared the present *Declaration* and at the same time signed a Certificate that the terms of this *Declaration* were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(O.M.)(56)15.

14. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Declaration* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

15. The present *Declaration* shall be known as *Declaration Twenty-Eight (28)* of the International Commission on Zoological Nomenclature.

DONE in London, this Seventh day of September, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 22. Pp. xxv—xxxii

DECLARATION 29

Introduction and definition of the expression "Linnean tautonymy" in relation to the determination of the type species of a nominal genus under Rule (d) in Article 30

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN DECLARATION 29

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(*Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology*)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (1st January 1947)

Senor Dr. Angel CABRERA (*La Plata, Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

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Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTENESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

DECLARATION 29

INTRODUCTION AND DEFINITION OF THE EXPRESSION “LINNEAN TAUTONYMY” IN RELATION TO THE DETERMINATION OF THE TYPE SPECIES OF A NOMINAL GENUS UNDER RULE (d) IN ARTICLE 30

DECLARATION :—Where the type species of a nominal genus is determined under the extension of the provision in Rule (d) (type species by absolute tautonymy) in Article 30 made by the Thirteenth International Congress of Zoology, Paris, 1948, (1950, *Bull. zool. Nomencl.* 4 : 155), the type species of the genus concerned is to be said to have been determined “by Linnean tautonymy”.

I. THE SUBJECT MATTER OF THE PRESENT “DECLARATION”

On 31st July 1956, Mr. Hemming, as Secretary, submitted to the International Commission on Zoological Nomenclature the following paper in which he asked for guidance as to the term to be used in making entries on the *Official List of Generic Names in Zoology* in cases where the type species of a genus was determined under the extension of Rule (d) (type species by absolute tautonymy) in Article 30, approved by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 155) when incorporating into the *Règles* the substance of the Ruling given in 1910 in *Opinion* 16 (entitled “The status of

pre-binomial specific names (published prior to 1758) under Art. 30D ") :—

Proposed introduction of the expression "Linnean tautonymy" to denote the method of determining the type species first authorised by the Ruling given in "Opinion" 16

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to give a Ruling introducing and defining the expression "Linnean tautonymy" as the term to be employed for denoting the method of determining the type species of a genus first authorised by the Ruling given by the Commission in *Opinion* 16 (1910, *Smithson. Publ.* 1938 : 31—39 ; annotated re-issue in 1947, *Ops. Decls. int. Comm. zool. Nomencl.* 1(A) : 255—304).

2. The subject raised in the foregoing *Opinion* was whether the citation in the synonymy of a nominal species included in a genus established without a designated type species of a pre-1758 univocal specific name consisting of the same word as the generic name could properly be held to constitute the indication of that species to the type species of the genus under Rule (d) in Article 30 (type species, by absolute tautonymy). On this question the Commission returned an affirmative answer. The Ruling so given contained, however, various ambiguities which militated against its practical application. At Paris in 1948, the Thirteenth International Congress of Zoology decided, on the recommendation of the International Commission, to clarify the Ruling given in this *Opinion* and, having done so, to incorporate it into the *Règles*. The provision so adopted by the Paris Congress was as follows :—

Where, prior to 1st January 1931, a genus was established without a designated or indicated type species and where in the synonymy cited for one, but not more than one, of the included nominal species there was cited a name which prior to 1758 had been published as a univocal specific name and that name consists of the same word as the name of the new genus to which the species in question was referred, the nominal species under which the pre-1758 tautonymous univocal specific name was cited as a synonym is the type species of the genus by absolute tautonymy.

3. In framing the foregoing decision the expression "absolute tautonymy" was employed in order to link up this method of determining the type species of a nominal genus with the only existing Rules in Article 30 with which at that time it could be associated, namely, Rule (d), the Rule which provides for the "indication" of a type species for a genus "by absolute tautonymy".

4. The need for further consideration of the phraseology employed in the Rule quoted in paragraph 2 above became apparent after the Paris Congress in the course of the preparation of the *Official List of Generic Names in Zoology* for publication in book form. For example, the type species of the genera *Hippopotamus* Linnaeus, 1758 (Class Mammalia) and *Struthio* Linnaeus, 1758 (Class Aves), are both determined under the foregoing Rule, the type species of the former being *Hippopotamus amphibius* Linnaeus, 1758, and the type species of the latter *Struthio camelus* Linnaeus, 1758. It will be immediately apparent that in cases of this class the expression "type species by absolute tautonymy" is entirely inappropriate for the specific name *amphibius* is not a tautonym of the generic name *Hippopotamus* and the specific name *camelus* is not a tautonym of the generic name *Struthio*.

5. This problem arose in a striking manner in the preparation of the first of the Reports which at Paris in 1948 (1950, *Bull. zool. Nomencl.* 4 : 581—583) the International Commission asked me to prepare for the purpose of enabling it to take decisions in regard to the generic names, the status of which had been discussed but left unsettled in *Opinion* 16. This First Report was concerned with the names of seventeen genera of birds, the type species of each of which had been determined under the Rule quoted in paragraph 2 above. In preparing this Report, which was published in 1952 (*Bull. zool. Nomencl.* 9 : 70—75) I took the view that it would be as misleading as it would be incorrect to state that the type species of *Caprimulgus* Linnaeus, 1758, had been determined by absolute tautonymy by reason of the fact that the specific name of the type species of the genus so named consisted of the non-tautonymous word "*europaeus*" or that the type species of *Corvus* Linnaeus, 1758, had been determined by absolute tautonymy by reason of the type species of this genus having the non-tautonymous specific name "*corax*". I accordingly sought for some other expression to use to denote the fact that the type species of these and the other genera concerned had been determined by the special extension of the Rule of Absolute Tautonymy quoted in paragraph 2 above. The conclusion to which I then came was that the most suitable and the most distinctive expression to employ to denote this method of determining the type species of a genus would be the expression "Type species by Linnean tautonymy", for Linnaeus was the first and principal author in whose works this problem arises and

was moreover the author in respect of a work by whom (the *Systema Naturae*) the Ruling on this subject was originally given by the Commission in *Opinion* 16.

6. The proposals submitted in the foregoing Report were approved by the Commission by its Vote on Voting Paper V.P.(54)73 and the decision so taken was later embodied in *Direction* 17 (1955, *Ops. Decls. int. Comm. zool. Nomencl.* 1(C) : 89—112). The names dealt with in that *Direction* were thereupon inscribed on the *Official List of Generic Names in Zoology*, the type species of each of the genera concerned being entered as having had its type species determined “by Linnean tautonymy”.

7. While the procedure adopted in *Direction* 17 provides a clear and intelligible indication of the method by which the type species of each of the genera concerned was determined, the problem involved is not confined to the generic names dealt with in that *Direction* but is a recurring one which will automatically arise whenever the type species of a genus is determined under special extension of the Rule of Absolute Tautonymy quoted in paragraph 2 above. I feel therefore that the phraseology employed in *Direction* 17 ought to be generalised so as to apply automatically to the case of every generic name, where the type species of the genus so named is determined in the special manner discussed above. Under the procedural decisions taken by the Thirteenth International Congress of Zoology, Paris, 1948, Rulings of this kind, being of a general character, should be embodied, not in *Opinions*, but in *Declarations* (1950, *Bull. zool. Nomencl.* 4 : 135—137).

8. For the reasons set out above I now recommend that the International Commission should adopt a *Declaration* that, where the type species of a genus is determined by the special extension of the principle of tautonymy inserted in the *Règles* by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 155), the type species of the genus concerned is to be said to have been determined “by Linnean tautonymy”.

2. Registration of the present application : Upon the receipt of Mr. Hemming's application the question of the possible adoption of a *Declaration* giving directions as to the form of citation to be employed in making entries in the *Official List of Generic Names in Zoology* in cases where the type species of the genus concerned had been determined under the provision inserted in the *Règles* in 1948 for the purpose of consolidating the Ruling previously given in *Opinion* 16 was allotted the Registered Number Z.N.(S.) 1151.

II. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

3. Issue of Voting Paper V.P.(O.M.)(56)17 : On 31st July 1956, a Voting Paper (V.P.(O.M.)(56)17) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the adoption of a *Declaration* defining the expression 'Linnean tautonymy', as recommended in paragraph 8 of the memorandum by the Secretary numbered Z.N.(S.) 1151 submitted simultaneously with the present Voting Paper" [i.e. in the paragraph numbered as above reproduced in the first paragraph of the present *Declaration*].

4. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 31st August 1956.

5. Particulars of the Voting on Voting Paper V.P.(O.M.)(56)17 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(56)17 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-five (25) Commissioners (arranged in the order in which Votes were received) :*

Riley ; Bodenheimer ; Boschma ; Holthuis ; Vokes ; Hering ; Mertens ; Bradley (J.C.) ; Stoll ; Sylvester-Bradley ; Esaki ; do Amaral ; Tortonese ; Hankó ; Mayr ; Cabrera ; Lemche ; Hemming ; Key ; Dymond ; Kühnelt ; Miller ; Bonnet ; Jaczewski ; Prantl ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned* :

None.

6. Declaration of Result of Vote : On 1st September 1956, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(56)17, signed a Certificate that the Votes cast were as set out in paragraph 5 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

7. Preparation of the present " Declaration " : On 26th September 1956, Mr. Hemming prepared the present *Declaration* and at the same time signed a Certificate that the terms of this *Declaration* were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(O.M.)(56)17.

8. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Declaration* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

9. The present *Declaration* shall be known as *Declaration Twenty-Nine (29)* of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Sixth day of September, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

VOLUME 14 Part 1. Pp. 1—42

OPINION 417

Rejection for nomenclatorial purposes of volume 3
(Zoologie) of the work by Lorenz Oken entitled *Oken's
Lehrbuch der Naturgeschichte* published in 1815—1816



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 417

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(arranged in order of precedence by reference to date of election or of most recent re-election as prescribed by the International Congress of Zoology)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(1st January 1947)

Senor Dr. Angel CABRERA (*Eva Peron, F.C.N.G.R., Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

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Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

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Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)

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Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

OPINION 417

REJECTION FOR NOMENCLATORIAL PURPOSES OF VOLUME 3 (ZOOLOGIE) OF THE WORK BY LORENZ OKEN ENTITLED "OKENS LEHRBUCH DER NATURGESCHICHTE" PUBLISHED IN 1815—1816

RULING :—(1) It is hereby ruled that in Volume 3 (Zoologie) of the work entitled *Oken's Lehrbuch der Naturgeschichte* published in 1815—1816 Lorenz Oken did not apply the principles of binominal nomenclature as required by Proviso (b) to Article 25 of the *Règles*, as amended by the Thirteenth International Congress of Zoology, Paris, 1948, and therefore that no name published in the foregoing volume of the above work acquired the status of availability by reason of having been so published.

(2) The title of the foregoing work is hereby placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* with the Title No. 33.

(3) Specialists in the groups dealt with in the foregoing work are invited to submit to the International Commission on Zoological Nomenclature applications for the validation under the Plenary Powers of any name published in it, the rejection of which would, in their opinion, lead to instability or confusion in the nomenclature of the group concerned.

I. THE STATEMENT OF THE CASE

On 20th May 1944, Dr. Wilfred H. Osgood (*Chicago Natural History Museum, Chicago, Illinois, U.S.A.*) submitted to the Commission the following request for a Ruling as to the availability under the *Règles* of names published in volume 3 (Zoologie) of Oken's *Lehrbuch der Naturgeschichte* published in 1815—1816:—

Application relating to the status of the names in Oken's "Lehrbuch der Naturgeschichte" submitted to the International Commission on Zoological Nomenclature by Dr. Wilfred H. Osgood in May 1944¹

**Are the names in Oken, 1815—1816,
"Lehrbuch der Naturgeschichte" 3 (Zoologie),
available under the Règles ?**

By WILFRED H. OSGOOD

(*Chicago Natural History Museum, Chicago, Illinois, U.S.A.*)

Oken's names were especially brought to attention by J. A. Allen in 1902 (*Bull. amer. Mus. nat. Hist.* **16** : 373—379). At this time Allen said: "Oken was almost as erratic and irregular in nomenclatorial matters as was Zimmermann in his *Specimen Zoologiae Geographicae*² published in 1777, but in some respects is less satisfactory, since he failed to cite authorities for the names used, and gave no reference to his sources of information. Both diagnosed generic, subgeneric and other groups, as well as species, under either vernacular or systematic names, as seemed to please their fancy, and employed the names given by previous authors as these authors used them, regardless of whether the generic portion of the name conformed or not to the genus to which they assigned the species. Yet they each had a "system"—sadly defective, however, when tried by the nomenclatorial usages of today."

2. Allen then discussed a number of Oken's generic and specific names of mammals which might be adopted for use instead of those

¹ When this application was published in the *Bulletin of Zoological Nomenclature*, it appeared as Appendix 1 of the Report on the status of new names published in Oken, [1815—1816], *Lehrbuch der Naturgeschichte*, prepared by Mr. Hemming at the request of the International Commission and the International Congress of Zoology at the meetings of those bodies held in Paris in July 1948. Mr. Hemming's Report is reproduced in paragraph 13 of the present *Opinion*. It was considered, however, that for the purposes of preparing this *Opinion* it would be more convenient if the documents annexed to Mr. Hemming's Report were detached from that position and were inserted in the *Opinion* in their original historical sequence.

² The *Specimen Zoologiae* of Zimmermann has since been rejected by the International Commission on Zoological Nomenclature as a work which does not comply with the requirements of Article 25, Proviso (b). See *Opinion* 257.

current at the time. Nowhere does he say that they must be used and his entire paper is factual rather than argumentative, his attitude being that of suspended judgment rather than conviction. In other words, his paper is that of a reporter rather than an advocate and what he says essentially is that, if Oken's names are acceptable, then certain changes are necessary.

3. Nevertheless, the Oken names have been accepted especially by British and American mammalogists and have been in general use for more than forty years. Among them are some of wide use not only in taxonomic but in general literature for some of the best known animals in the world. Examples are *Citellus* Oken, which replaced *Spermophilus* Cuvier for the very large group of ground squirrels of Asia and America, including species concerned in the transmission of disease and therefore dealt with in medical literature; *Panthera* Oken, which has been adopted as a genus or subgenus for the larger cats including the lion, tiger, leopard and some others; and *Thos* Oken for the jackals.

4. In 1904 (*S.B. Ges. naturf. Fr. Berlin* 1904 : 55), only two years after Allen's paper, the German mammalogist Matschie demurred by saying: "Die in Oken's *Lehrbuch der Naturgeschichte* verwendeten Bezeichnungen dürfen deshalb nicht gebraucht werden, weil die Grundsätze der binaren Nomenklatur in diesem Buche nicht befolgt sind."

5. In 1927 Stiles and Orlemann (*Bull. U.S. hyg. Lab.* 145 : 29), in dealing with the Primates, said of Oken's work: "From our viewpoint the nomenclature used by Oken, 1816, pp. 1223—1232, is not in harmony with International Rules, is neither consistently binary nor consistently binominal, hence is not available under the Law of Priority."

6. In 1932 (*Trab. Mus. Cienc. nat., Madrid (Zool.)* 57 : 106), Cabrera referred to Oken saying: "este autor no siguió la verdadera nomenclatura binaria, y por consiguiente sus nombres no deben admitirse". (Since, this author has consistently refused to recognise Oken's names and recently has issued a detailed defence of his position (1943, *Ciencia, Mexico* 4 : 108—111).)

7. The fact remains that Oken's names have attained wide currency in spite of expressed objection to them. They seem to be similar to the names of Gronovius, which were accepted by the Commission under *Opinion* 20 and later rejected by exercise of Plenary Power under *Opinion* 89. In fact it might well be argued that they are even less deserving than the names of Gronovius. Regardless of interpretation of the Code, a ruling on them appears to be necessary, since it is

now a question of "greater confusion than uniformity" apparently subject only to the exercise of the Plenary Power.³

2. Supplementary Note by Dr. Osgood : On receipt of the foregoing application Mr. Hemming, as Secretary, took the view that it would be helpful to the Commission if Dr. Osgood were to indicate more clearly the action which he recommended that the Commission should take. In response to an invitation addressed to him on this subject by Mr. Hemming, Dr. Osgood on 13th September 1944 wrote as follows :—

In regard to Oken's *Lehrbuch*, I would prefer to see it entirely suppressed. Allen, who first uncovered it and who has been followed considerably, did not make a very good case for it, and later authors, including both Stiles and Stejneger, I believe, have argued that it does not conform to the Code.

II. THE SUBSEQUENT HISTORY OF THE CASE

3. Registration of the present application : Upon the receipt of Dr. Osgood's application the question of the status of names in Oken's *Lehrbuch* was allotted the Registered Number Z.N.(S.) 153.

4. Report on the system of nomenclature employed by Oken in the "Lehrbuch der Naturgeschichte" furnished by Dr. Karl Jordan in June 1944 : At the time of the receipt of Dr. Osgood's application no copy of Oken's *Lehrbuch* was conveniently available for study in London owing to the evacuation as a precaution

³ It should be noted that *Opinion 20* was rendered at a date prior to the grant to the International Commission of Plenary Powers to suspend the rules in certain cases. That *Opinion*, therefore, dealt only with the sole question, with which the International Commission was then empowered to deal, namely, the interpretation of the Code, the question then submitted being whether Gronovius in 1763, *Zoophylacium*, had "applied the principles of binary nomenclature" as required by proviso (b) to Article 25 of the International Code. The question dealt with in *Opinion 89* is entirely different from that dealt with in *Opinion 20*, since *Opinion 89* is not concerned in any way with the interpretation of the Code but with the question whether or not the Plenary Powers conferred upon the International Commission at Monaco in 1913 should or should not be used to suppress Gronovius, 1763, *Zoophylacium*, and certain other works.

against the risk of destruction in air-raids of the greater part of the contents of the great zoological libraries of London. Knowing, however, that there was a copy of this work in the library of the Zoological Museum at Tring, Mr. Hemming asked Dr. Karl Jordan, at that time President of the International Commission, whether he would kindly examine this work and furnish a report on the system of nomenclature used by Oken in it. In response to the foregoing invitation, Dr. Jordan on 10th June, 1944 furnished the following report :—

**On the system of classification used by Oken (L.) in his
“Lehrbuch der Naturgeschichte” of 1816⁴**

By KARL JORDAN, Ph.D., F.R.S.

(*British Museum (Natural History), Zoological Museum, Tring*)

(*Extract from a letter dated 10th June 1944, from
DR. KARL JORDAN (then President of the International
Commission on Zoological Nomenclature) to the
Secretary to the Commission*)

In order to understand Oken's classification and nomenclature, two main points must be kept in mind. (1) Animals were created according to a definite plan : a tribe (which he calls *Sippschaft*) consists of four genera in every family (Oken's *Zunft*) ; the number of species in each genus varies. Often there are so many kinds known that Oken subdivides the genus concerned. These divisions and subdivisions of a *Gattung* are marked by letters (e.g. the letters “a”, “b”, “c”, etc.). These are usually followed by one or more Latin names. The classification and nomenclature used are complicated. (2) Apart from the part relating to European animals, Oken's *Lehrbuch* is mainly a compilation. When uncertain about the systematic position of an animal, Oken often refers to the same animal in different places and gives more than one Latin name for it. The names so given are usually taken from the literature. He cites no authors' names and gives no bibliographical references for the Latin names cited. At the end of the volume he gives a short bibliography.

The nature of Oken's system of classification may be illustrated by an example. I therefore give below his classification for the first genus of his fifth tribe (5 *Sippschaft*, 1 *Gattung*), from which I have omitted his descriptions.

⁴ When this letter was originally published, it appeared as Appendix 2 to the Report by Mr. Hemming which is reproduced in paragraph 13 of the present *Opinion*. For reasons similar to those explained in Footnote 1 in relation to Dr. Osgood's original application it has been judged more convenient in preparing this *Opinion* to insert the text of the above letter in its original chronological position.

Classification used by Oken for the first genus of his fifth tribe

5. Sippschaft

1. Gattung. Muffer [The German names—often spaced—are mostly Oken's invention.]

a. Dächse

a. *Meles*, Dachs ;

1. Art. *M. vulgaris*, *Ursus Meles*, *Taxus*, gen. D., Grävung ;

2. Art. *M. americana*, *Ursus labradorius* ;

3. Art. *M. indica* ;

Der lang bekannte *Meles indicus* ist augenscheinlich *Galeopithecus* !

b. Stunk, *Mephitis*, *Viverra*, Stinthier, Muffer ;

1. Art. Zweistreifiger St. [no Latin name cited]

a. Teufelskind oder Stinkthier (*Viv. Mephitis*) ;

b. Yaguara, *Zorilla*, Muffer von Chili ;

Here probably a Muffer from Chili, but the white on frons and occiput broader, more probably Grunzer or Blaser at Magellan's Strait, Stinkfuchse, *Putorius americanus*. Stinkthier in Luisiana, Schweitzer, Ortohula, Teufelskind and *Chinche*. (translation)

c. *Gulo quitensis*, Atok oder Zorra (Fuchs) ;

As the Atok has been placed in *Gulo*, one should expect that its dentition would be the same ; but we doubt it. (translation)

2. Art. Fünfstreifiger St. ; [no Latin name cited]

a. *Putorius americanus striatus* (*Viv. Putorius*) ;

[At the end of the description of colour and habits there occurs—over the page—the name *Putorius americanus striatus* (int'd K.J.)]

b. [Oken made no entry under this sub-item. int'd K.J.]

c. *Conepate* (*Viv. Putorius*) ; [sei the equivalent of the Latin *seu* K.J.] *Coneptl*, amerik. Iltis gestreiften.

3. Art. Einstreifiger St. ; [no Latin name cited]

a. *Cinche* (*Viv. Mephitis*) ; sei Yzquiepatl (schlechthin) ;

b. *Mapurito* (*Viv. Mapurito*) ; . . . sei *Viverra Putorius* ;

[The word "Mapurito" is here used as a specific name. int'd K.J.]

c. Iltis St.

1. Art. Geflekter St. ; [no Latin name cited]

- a. *Mapurito* oder *Mafutiliqui* (*Viv. Zorilla*); [The word "Mapurito" is here used as a vernacular name. int'd. K.J.]
[If here *Zorilla*? Query *Zorinna* or *Anna*? (transl.)]
- b. *Chingha* (*Viverra Chingha*);
- c. *Zorille*; sei eine mit *Mafutiliqui* und *Ortohula*.

d. Gräving, *Grison* : [The word "Gräving" is slightly spaced. K.J.]

1. Art. Zügel G. ; [no Latin name cited]

- a. *Chinche* (*Viv. vittata*); Sei Maikal oder Yagiane.—
- b. *Viverra vittata*, *Grison* :
Mustela gujanensis, Foine von Güana ;
Huron minor, *Martes Grison* :

[Note : The above are not *vittata* but are two additional distinct species, each with its own description. int'd. K.J.]

Perhaps here *Yzquiepatl* (*Viv. Vulpecula*), Teufelskind and *Chinche* from Brazil. *Grison* (*Viv. vittata*) and *Galera* belong together ?, the former probably here. (translation)

e. Schnopp, *Tayra* :

1. Art. Gelbkehliger Sch. ; [no Latin name cited]

- a. *Mustela barbara*, *Tayra* oder grose Wiesel ;
Einerlei Gr. Marder von Güana, *Must. poliocephalus*.
- b. *M. lanata*, kl. *Foina* von Güana ;
- c. *Mustela canadensis*, *Pekan* ;

There are three animals in Paragay similar to the marten, pine marten and polecat, but larger . . . They are *Huron minor*, *major*, *Yaguare*; *Huron major* (*Furo m.*); *Martes Tayra*; . . . Is *Mustela barbara* different? It seems to be *Ichneumon de Yzquiepatl* (*Viv. Quasja*), *Pekan* (*Must. canadens.*), kleine *Foina* von Güana (*Must. lanata*), *Tayra* (*M. barbara*). (translation)

2. Art. Schwarzer Sch. [no Latin name cited]

- a. *Yzquiepatl*, seu *Vulpecula quae Maizium torrefactum semulatur colore* (*Viv. Vulpecula*);
- There are two other small foxes of this sort. One is generally called *Yzquiepatl* . . . The other is called *Conepatl* seu *Vulpecula puerilis*, . . . (translation)
- b. *Stinkthier*, (*Viv. Putorius*)

3. Art. Brauner Sch. ;

Ichneumon de Izquiepatl (Viv. Quasja)

One could put *Coase* here if anteriorly it has five toes.
(translation)

f. Järf, *Gulo*, *Ursus* ;

1. Art. *G. vulgaris*, *Urs. Gulo*, *Hyaena*, *Glouton*, *Rosomak*, *Filfrass* (*Rahmfrass*), *Schnopp*, gem. J. ;

5. Publication in 1945 of a preliminary notice regarding the present application : In a note dealing with three of the names published in Oken's *Lehrbuch* published in the *Bulletin of Zoological Nomenclature* on 26th July 1945 (*Bull. zool. Nomencl.* **1** : 112—113), Mr. Hemming drew attention to the present application (which at that time it was hoped would shortly be published in the *Bulletin*) and to the question of principle involved in the decision which the Commission would be called upon to take in this case.

Proposal by the late Commissioner C. W. Stiles for the addition to the "Official List of Generic Names in Zoology" of certain names proposed by Brisson (M.J.), 1762, "Regnum animale", and by Oken (L.), 1815—1816, "Lehrbuch der Naturgeschichte"

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

In February 1934 the late Commissioner C. W. Stiles proposed the addition to the *Official List of Generic Names in Zoology* of a long list of names of genera in the Order Carnivora (Class Mammalia). This list was taken from the manuscript of a paper enumerating the parasites for Carnivora. In making this proposal, Commissioner Stiles observed that over 250 of these parasites had also been reported for man and expressed the view that in consequence "it becomes important from a standpoint of public health to establish as firmly as possible the generic names of the animals which harbour these parasites". The paper from the manuscript of which these generic names were taken by Commissioner Stiles was published in December 1934 in *U.S. Nat. Inst. Health Bull.* **163** : 911—1223 (Stiles (C.W.) and Baker (C.E.), "Key-Catalogue of Parasites reported for Carnivora (Cats, Dogs, Bears, etc.) with their possible Public Health Importance").

2. The list of generic names submitted by Commissioner Stiles was considered by the International Commission at their Session held at

Lisbon in September 1935 (Lisbon Session, 4th Meeting, Conclusion 16, for the text of which see 1943, *Bull. zool. Nomencl.* **1** : 41). The Commission then agreed that such of the names in question as had not been objected to by the specialists consulted should be placed on the *Official List of Generic Names in Zoology*. In accordance with this decision, the great majority of the generic names included in Commissioner Stiles's list have since been placed on the *Official List* in an *Opinion*, now awaiting publication.

3. Among the names proposed by Commissioner Stiles for inclusion in the *Official List* were certain names published by Brisson (M.J.), 1762, *Regnum animale*, and by Oken (L.), 1815—1816, *Lehrbuch der Naturgeschichte*. The names in question were the following :—

(i) *Names proposed by Brisson :*

Hyaena Brisson, 1762, *Regn. anim.* (ed. alt.) : 168

Lutra Brisson, 1762, *ibid.* (ed. alt.) : 201

Meles Brisson, 1762, *ibid.* (ed. alt.) : 183

(ii) *Names proposed by Oken :*

Genetta Oken, 1816, *Lehrb. Naturgesch.* **3** (Zool.) (2) : 1010

Grison Oken, 1816, *ibid.* **3** (Zool.) (2) : 1000

Tayra Oken, 1816, *ibid.* **3** (Zool.) (2) : 1001

4. When Commissioner Stiles's list was under consideration, Commissioner Angel Cabrera expressed the view that the acceptance of generic names proposed by Brisson, 1762, *Regnum animale*, and by Oken, 1815—1816, *Lehrb. Naturgesch.* would be contrary to proviso (b) to Article 25, since, in his opinion, neither of these authors in the works concerned "had applied the principles of binary nomenclature". Commissioner Cabrera added, however, that "it would be good to see others' opinions about this".

5. In these circumstances, the six names enumerated in paragraph 3 above have not been included in the *Opinion* referred to above but have been deferred for further consideration. Commissioner Stiles's proposal that these names should be added to the *Official List of Generic Names in Zoology* will be reviewed, when decisions have been taken by the International Commission on the application submitted by Dr. G. H. H. Tate in regard to Brisson, 1762, *Regnum animale* (see page 112 above) and the application submitted by Dr. Wilfred H. Osgood in regard to Oken, 1815—1816, *Lehrb. Naturgesch.*, which will shortly be published in the present journal.

6. Comment received in 1947 from Mr. T. C. S. Morrison-Scott (British Museum (Natural History), London) : On 18th January 1947, Mr. T. C. S. Morrison-Scott (*British Museum (Natural History), London*), commented as follows on the question whether,

if Oken's *Lehrbuch* were to be found to be invalid, measures should be taken to validate new names published in it which had come into general use :—

**On the question of the use of generic names published in Oken's
"Lehrbuch der Naturgeschichte"⁵**

(Extract from a letter, dated 18th January 1947, from
MR. T. C. S. MORRISON-SCOTT, Deputy Keeper, Department of Zoology, British Museum (Natural History) to
the Secretary to the Commission)

I think that the elimination of Oken's *Lehrbuch* would be a very retrograde step, so far as mammals are concerned. At last we are getting some sort of order into things. Works like Allen (1939) *Checklist of African Mammals* and Simpson (1945) *The Principles of Classification and a Classification of Mammals* are the foundations on which we now build and there is a growing feeling among mammalogists that the foundations should not be disturbed. The need for stability in order to take stock of the mass of undigested knowledge overrides the following of rules for the sake of pedantic uniformity—or that is the way I see it.

Both Allen and Simpson use Oken's names—not merely *Pan* but *Panthera*, *Genetta*, etc., and it would be crazy to eliminate these names.

7. Preliminary consideration given to the present application by the International Commission on Zoological Nomenclature at Paris in 1948 : Preliminary consideration was given to the present application by the International Commission at its Session held in Paris in 1948. The following is an extract from the *Official Record* of the Thirteenth Meeting of that Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 17.30 hours (1950, *Bull. zool. Nomencl.* **4** : 365—366) :—

13. THE ACTING PRESIDENT (MR. FRANCIS HEMMING) recalled that the Commission had agreed that the consideration of a proposal submitted by the late Dr. C. W. Stiles (U.S.A.) for the addition to the *Official List of Generic Names in Zoology* of the names

⁵ When this letter was originally published, it appeared as Appendix 4 to the Report by Mr. Hemming which is reproduced in paragraph 13 of the present *Opinion*. For reasons similar to those explained in Footnote 1 in relation to Dr. Osgood's original application it has been judged more convenient in preparing this *Opinion* to insert the text of the above letter in its original chronological position.

of three genera of the Order Carnivora (Class Mammalia) published by Brisson in 1762 in the *Regnum animale* should be postponed until after a decision had been taken by the Commission on the status of generic names published in that work. As explained in the note (file Z.N.(S.) 177) which he (Commissioner Hemming) had published in regard to Dr. Stiles's proposal (Hemming, 1945, *Bull. zool. Nomencl.* 1 : 112—113), Dr. Stiles had at the same time submitted a similar proposal in regard to the names of three genera belonging to the same Order which had first been published by Oken in 1815—1816 in his *Lehrbuch der Naturgeschichte*. The names were of importance in human medicine, for parasites common to Man had been reported from species of each of the genera concerned. It was not possible, however, for the Commission to reach a decision on Dr. Stiles's proposals until they had first decided whether Oken's *Lehrbuch* was a work which complied with the requirements of proviso (b) to Article 25 (requirement that an author must in any given work have applied the principles of binominal (formerly "binary") nomenclature). An application for a ruling on the question of the availability of names first published in Oken's *Lehrbuch* had been submitted to the Commission (file Z.N.(S.) 153) by the late Dr. Wilfred H. Osgood, of Chicago, but had not yet been published in the *Bulletin*. This work contained new names in a wide range of groups in the Animal Kingdom and the new names in it had been accepted by workers in some groups and rejected by others. Doubt as to the status of names published in such a work was most undesirable and should be brought to an end as quickly as possible by an authoritative decision by the Commission. Dr. Osgood, who had been one of the foremost of American zoologists in his forthright criticisms of the slowness of the work of the Commission and, as it seemed to him, of the lack of vision and courage displayed by the Commission in the past, had expressed the view that the manner and spirit in which the Commission tackled the difficult problem presented by Oken's *Lehrbuch* would be looked upon by many zoologists as the touchstone of the capacity of the Commission to deal with difficult problems. From the point of view of reassuring progressive American zoologists regarding the capacity of the Commission to discharge impartially and effectively the duties entrusted to it, it was thus of importance, quite apart from other considerations, that an early decision should be taken by the Commission in this matter. The issues involved were, however, complicated and the consideration of this subject was rendered difficult by the fact that few zoological libraries contained a copy of Oken's *Lehrbuch*.

THE COMMISSION agreed :—

- (1) to take into consideration as soon as possible after the close of the present Session the application submitted by the late Dr. Wilfred H. Osgood (U.S.A.) for a ruling on the availability under Proviso (b) to Article 25 of names first published by Oken, 1816, *Lehrbuch der Naturgeschichte* (file Z.N.(S.) 153) ;

- (2) to invite the Secretary to confer with specialists in the groups concerned on the question of the practice (whether acceptance or rejection) adopted in their respective groups in regard to the *Lehrbuch* names and to submit a Report thereon ;
- (3) pending a decision on the question in (1) above, to defer a decision on the application submitted by the late Dr. C. W. Stiles for the addition to the *Official List of Generic Names in Zoology* of the names of three genera of the Order Carnivora (Class Mammalia) first published by Oken in the work referred to in (1) above (file Z.N.(S.) 177).

8. Completion by Mr. Francis Hemming in August 1950 of the draft of the Report on the present application asked for by the Thirteenth International Congress of Zoology, Paris, 1948 and initiation of further discussions with specialists : In the period immediately following the close of the Thirteenth International Congress of Zoology in August 1948 the entire resources of the Office of the International Commission were devoted for some eighteen months to the preparation and publication of the *Official Record* of the Meetings of the International Commission during its Paris Session and of the Section on Nomenclature of the Paris Congress. Accordingly, it was not until 1950 that it was possible for the Secretary to turn his attention to the present and other cases on which he had been invited by the Paris Congress to submit special Reports. By August 1950, however, Mr. Hemming had completed his Report on the present case. In this Report he reached the conclusion that for the reasons there stated Oken did not apply the principle of binominal nomenclature in his *Lehrbuch der Naturgeschichte* and therefore that new names in that work did not acquire the status of availability under the *Règles* in virtue of having been published therein. Mr. Hemming did not at that time sign the Report which he had prepared, thinking it better first to seek the views of interested specialists on the question whether it would be desirable that some at least of the names published in this work should be validated by the Commission under its Plenary Powers. The specialists so consulted included the following :—

(a) *Dr. Angel Cabrera (La Plata, Argentina) :*

On 20th July 1950, Dr. Angel Cabrera addressed a letter to the Office of the Commission strongly urging

the rejection of Oken's *Lehrbuch* and referring to a paper published in 1949 in which he advocated that course. Dr. Cabrera's letter is reproduced in the immediately following paragraph of the present *Opinion*.

(b) *Dr. George Gaylord Simpson (The American Museum of Natural History, New York)* :

On 24th August 1950, Dr. George Gaylord Simpson wrote as follows :—

The proposal to issue the *Opinion* invalidating Oken's *Lehrbuch* simultaneously with decisions validating selected names from that work seems to me an excellent and practical idea . . . I used some of these names in my *Classification of Mammals*, and in general might hope that the nomenclature used there will survive as far as possible.

(c) *Dr. W. I. Follett (California Academy of Sciences, San Francisco, California, U.S.A.)* :

On 19th January 1951, Dr. W. I. Follett wrote intimating his willingness to examine the names used for genera of fishes in Oken's *Lehrbuch*. As a first step Dr. Follett invited Mr. Norman J. Wilimovsky to make a special study of this question.

9. Comment received in 1950 from Dr. Angel Cabrera (La Plata, Argentina) : On 20th July 1950, Dr. Angel Cabrera (*La Plata, Argentina*) addressed the following letter to the Secretary setting out his views on the question of the status under the *Règles* of Oken's *Lehrbuch* :—

**On the question of the status of names in Oken, 1815—1816,
“Lehrbuch der Naturgeschichte” 3 (Zoologie)⁶**

By ANGEL CABRERA

(*La Plata, Argentina*)

(*Extract from a letter dated 20th July 1950 from DR. CABRERA
to the Secretary to the Commission*)

I have read very attentively the fourth volume of the *Bulletin of Zoological Nomenclature*. The question about the names in Oken's

⁶ When this letter was originally published, it appeared as Appendix 3 to the Report by Mr. Hemming which is reproduced in paragraph 13 of the present *Opinion*. For reasons similar to those explained in Footnote 1 in relation to Dr. Osgood's original application it has been judged more convenient in preparing this *Opinion* to insert the text of the above letter in its original chronological position.

Lehrbuch interests me very much. I received some time ago your request regarding my paper on this subject, but unfortunately I had not myself a copy of this paper and was therefore forced to ask for one from Mexico, where it was published seven years ago (in *Ciencia* 4 (Nos. 4-5) published on 20th October 1943).

My reasons for rejecting Oken's names are similar in every way to those advanced by Hershkovitz in 1949 (*J. Mammal.* 30 : 289—301). The following is a translation of a part of my paper :—

Though this book [Oken's *Lehrbuch*] was published in 1816, naturalists in general ignored Oken's names until 1902, when J. A. Allen gave a list of those which, in his opinion, ought to be accepted in Mammalogy. He did not do so, however, without giving the warning that Oken was "erratic and irregular in nomenclatorial matters" and that his manner of naming animals was "sadly defective when tried by the nomenclatorial uses of today". From that date, however, North American zoologists began to use these names, and their example was soon followed by the Europeans. A noteworthy exception was Paul Matschie (1904), who rejected them on the ground that Oken never followed the true binary nomenclature, a very important opinion, coming, as it did, from a fellow-countryman of the author under criticism. Many years afterwards, when studying the nomenclature of the apes, Stiles and Orleman (1927) expressed the same views . . . As said by Stiles and Orleman, the author of a book or publication must be "consistently binary and consistently binominal" in order that the names in his book may be accepted. Indeed, if an author does not practise binary and binominal nomenclature, it would be absurd to accept one or two of his names, merely because they are accidentally formed of two words. This being so, it is not possible to consider Oken as an author applying the principles of binary nomenclature in his *Lehrbuch* . . . Some of Oken's genera (Gattungen) have a name composed of two words in violation of the principle established by Linnaeus and now embodied in Article 8 of the *Règles*. Among the genera of fishes, there is one named "*Regalecus lanceolatus*" and another has as its name "*Lepidopus goranensis*". Many of the genera have not even a technical name, being cited only under the vernacular German name, such as "Schlenderschwanz" among reptiles and "Muffer" among mammals. In the genus "*Lepidopus goranensis*" there is found a species named "*Botrichthys sinensis*", whereas the name of another is "*Botrichthoides oculatus*". The genus of reptiles "Schlenderschwanz" include the species "*Stellio Lacerta caudiverbera*", "*Stellio fimbriatus*" and "*Stellio tetradactylus*", while later another genus is named *Stellio* and contains other different species . . . Oken's specific names are frequently binominal, but many of them are trinominal and even plurinominal. Thus, the orang-outang appears as "*Faunus indicus, rufus*". If we do not see here a trinominal denomination, we shall be forced to regard this

expression not as a name at all, but as an abbreviated description such as those used by Seba, Brisson, etc. In the genus *Cercopithecus*, we find similar instances ; among its species there is a "*Cercopithecus angolensis major*", a "*Cercopithecus angolensis alius*" and a "*Simia nigra magnitudinis mediae*".

Other examples given in my paper are the same as those pointed out by Hershkovitz. To sum up, I conclude by saying that Oken's nomenclature "is merely an irregular mixture of generic names, sometimes in Latin and sometimes in German, indistinctly composed of one or of two words, with specific names as often binominal as uninominal or polynominal. It is impossible, in my opinion, to use the names belonging to such a system of nomenclature, if we reject those given by Frisch, Gronow or Catesby. To accept these names as valid, in clear breach of the principles of Article 25 of the *Règles Internationales*, would be to declare the futility of the *Règles* themselves or, at least to agree with those that ignore them".

10. Publication in 1952 of an appeal by the Secretary to specialists for advice : In the winter of 1951/1952, Mr. Hemming decided to publish in the *Bulletin of Zoological Nomenclature* a series of brief Reports on each of the cases which had been referred to him for study by the Thirteenth International Congress of Zoology, Paris, 1948. These Reports were published on 15th April 1952. The Report on the present case was as follows (Hemming, 1952, *Bull. zool. Nomencl.* 7 : 195—196) :—

**Case 1 : Status of names published in Oken (L.), [1815—1816],
"Lehrbuch der Naturgeschichte"**

3. A comprehensive Report on the status of names, as published in 1815—1816 in the *Zoologie* volume of Lorenz Oken's *Lehrbuch der Naturgeschichte*, has been prepared in consultation with interested specialists and will be published in an early Part of the *Bulletin of Zoological Nomenclature*.⁷ In addition, steps are being taken to obtain from specialists their views as to which of the Oken names ought in the interest of stability and for the purpose of avoiding confusion, to be preserved with priority as from Oken in the event of its being decided that from the nomenclatorial standpoint Oken's *Lehrbuch* is not an acceptable work. It would be particularly helpful if specialists in as many groups as possible would co-operate with the Commission by sending statements of their views on the foregoing subject, so far as concerns names of genera and/or species in their own groups. Such information will be of great value, in whichever sense the International Commission answer the question raised in the present case, for, if it is decided that the *Lehrbuch* is an acceptable work, it will be possible at once to place on the *Official List* generic names so submitted by specialists.

⁷ The Report here referred to is reproduced in paragraph 13 of the present *Opinion*.

11. Comments from Dr. W. E. China (British Museum (Natural History), London), Mr. Francis Hemming (London) and Dr. Angel Cabrera (La Plata, Argentina) elicited by the appeal for advice issued to specialists by the Secretary in 1952 : The appeal for advice addressed to specialists in the note published in 1952 (paragraph 10 above) elicited the following communications :—

- (a) Comment by Dr. W. E. China (*British Museum (Natural History), London*) (statement furnished under cover of a letter dated 21st April 1952) :

The invalidation of Oken's 1815—1816 work is immaterial to hemipterists since all the generic names listed are of prior origin. No nomenclatorial changes will be necessary whether this work is accepted or not.

- (b) Comment by Mr. Francis Hemming (*London*) (letter dated 1st June 1952) :

So far as the nomenclature of the butterflies is concerned, Oken's *Lehrbuch* is not of importance. There are few new generic names in this work in this group and without exception those names are already invalid for other reasons. There are therefore no Oken names in current use in the butterflies. If there had been such names, I should certainly have advocated their validation by the Commission under its Plenary Powers in accordance with the procedure laid down for adoption in such cases by the International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 65, Point (3)(iii)), a procedure which appears to me to be of great value for promoting stability in nomenclature and avoiding vexatious and unnecessary name-changing.

- (c) Comment by Dr. Angel Cabrera (*La Plata, Argentina*) (statement dated 22nd June 1952)⁸:

Both as a mammalogist and as a member of the International Commission, I am openly against all and every one of the Mammal names in Oken's *Lehrbuch*. This book has been deemed unavailable for nomenclatorial purposes by Matschie, by Stiles and Orleman, and by myself, and as to the names of Mammalia in it, they have been thoroughly discussed by Herschkovitz (1949, *Journ. Mamm.* 30 : 289), who arrives to the same negative results. A significant fact about these

⁸ The statement here reproduced is in the nature of a supplement to the comment furnished by the same specialist in July 1950, reproduced in paragraph 9 of the present *Opinion*.

names is that they were apparently ignored by every specialist until 1902, when J. A. Allen (*Bull. amer. Mus. nat. Hist.* **16** : 373) revived several of them, although, curiously enough, he considered Oken's peculiar nomenclature to be "erratic and irregular". I am quite in accordance with all the Herschkovitz's conclusions. Moreover, about the suggested possibility of preservation of some names "with priority as from Oken", I can't see how we can include in *Zoological Nomenclature* a name as from a book nomenclatorially unavailable without incurring an absurd contradiction. If a work is declared unavailable for nomenclatorial purposes and we use the names published in it, in order "to avoid confusion" or under any other pretext, what does "unavailability" mean and where is the utility of that declaration?

12. Comment by the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists : On 12th June 1953, Dr. W. I. Follett (*California Academy of Sciences, San Francisco, California, U.S.A.*) transmitted to the Office of the Commission a report dated 5th June 1953 on the status of names in Oken's *Lehrbuch* which at his request (paragraph 8(c) above) had been prepared by Mr. Norman J. Wilimovsky (*Stanford University, Stanford, California, U.S.A.*). In this report Mr. Wilimovsky recommended (a) that Oken's *Lehrbuch* "be ruled unavailable from a nomenclatorial standpoint" and (b) that "any new generic names which properly date from this particular work by Oken and which are in long established use be placed on the list of *nomina conservanda*". In forwarding this report, which is reproduced below, Dr. Follett added that the recommendations embodied in it "are hereby adopted as those of the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists" :—

Report on the status of names in Oken's "Lehrbuch"

Herewith is the report on Oken's *Lehrbuch der Naturgeschichte*. I have spent a very considerable time going over your typewritten copy of this rare volume. The task has not been as simple as we first suspected. Any simple check of the italicized names contained in Oken with some standard nomenclature such as Neave did little to answer any question whether or not this work should be retained from a nomenclatorial point of view.

Volume Three of Oken's *Lehrbuch* comprises the fishes. His nomenclatorial style is somewhat confusing. Even the rather helpful paper of J. A. Allen (1902, *Bull. amer. Mus. nat. Hist.*, **14** : 373—379) which gives some insight as to the nomenclatorial technique of Oken did not solve important points as whether an italicized word was meant as a generic name or merely a common name. Oken's work, in my estimation, is not consistently binomial, but this problem of binomiality does not compare with the difficulty in determining whether a series of names, some italicized and some not, is meant as a series of common descriptive terms or whether Oken is introducing a set of alternate generic and/or specific names as he sometimes did.

Oken's 1816 *Lehrbuch* contains about 295 generic names. Of these, some 17 (or almost 6 per cent.) are emendations for other generic names proposed therein for the first time. Apparently, some 19 names are proposed for the first time. These 19 generic names, or about 6½ per cent. of the total nomenclatorial content, are those with which we are primarily concerned, and should be the basis upon which we decide whether or not to retain this particular work of Oken's as nomenclatorially valid.

Under the principle of priority the retention of Oken's work would mean changing a number of well-established generic terms. For example, the genus *Pholis* would require another name as we now understand it. On the other hand, a number of generic names which are currently well established were originally proposed by Oken (i.e., *Bodianus*, *Lampetra*, *Lonchiurus*), although several of these terms are currently ascribed to other authors. In many instances, the contents of the genera as "defined" by Oken are not comparable to our current viewpoints regarding these genera.

Therefore, in view of this situation, I respectfully recommend to you that you suggest to the International Commission that Oken's 1816 *Lehrbuch der Naturgeschichte* be ruled unavailable from a nomenclatorial standpoint. Secondly, I suggest that any new generic names which properly date from this particular work by Oken and which are in long established use be placed on the list of nomina conservanda. This latter action of course will require that the list of new generic terms proposed in this work be reviewed by a panel of "specialists". If this latter action is deemed advisable, I shall be most happy to furnish a list of those generic names which I believe were proposed for the first time in this work. I have purposely refrained from mentioning too many of the generic names in Oken's book for obvious reasons.

13. Report submitted by Mr. Francis Hemming in response to an invitation by the Thirteenth International Congress of Zoology, Paris, 1948 : The present case was reviewed in the early part of 1954 by Mr. Francis Hemming, who concluded (a) that, having regard to the fact that nearly two years had elapsed since the

publication of his appeal to specialists for advice, it was likely that the comments received constituted a representative sample of opinion among zoologists regarding the status of Oken's *Lehrbuch* and (b) that, although, if it had been practicable, it would have been advantageous for the Commission to deal simultaneously with (i) the status of the above work and (ii) the validation, if that work were to be rejected, of any generic names in it that were in common use, the adoption of this procedure in the present case would greatly increase the considerable delay which had already occurred in obtaining a decision from the Commission on the central issue involved, namely, whether generic names published in Oken's *Lehrbuch* were to be accepted as having acquired the status of availability under the *Règles* by reason of having been so published. Accordingly, Mr. Hemming proceeded to complete the Report, the first draft of which he had prepared in 1950 (paragraph 8 above). The Report so completed, which was signed by Mr. Hemming on 9th March 1954, was as follows :—

**Report on the status of new names published in Oken, [1815—1816],
“*Lehrbuch der Naturgeschichte*”**

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

(Reference : Official Record of Proceedings of the International Commission on Zoological Nomenclature, Paris Session, 13th Meeting, Conclusion 13)

I. Introductory

In pursuance of the request addressed to me by the International Commission on Zoological Nomenclature at the third of their Meetings held during their Paris Session on Monday 26th July 1948 (Paris Session, 13th Meeting, Conclusion 13), I submit herewith for the consideration of the Commission and of interested zoologists generally the following Report on the question of the status of new names published in Oken's *Lehrbuch der Naturgeschichte*, Volume 3 (Zoologie), issued in two *Abtheilungen*, of which the first (“*Fleischlose Thiere*”, pp. xxviii, 842, xviii, iv, 40 pls.) appeared in 1815 and the second (“*Fleischthiere*”, xvi, 1270 [2], 1 *tab.*, with pp. 843—50 supplementary to *Abth.* 1) in 1816.

2. An authoritative statement on the status of new names in the *Lehrbuch* is long overdue, for there has been great diversity of practice among zoologists in regard to this matter, specialists in some branches (particularly in mammalogy) having in recent decades taken to using some or all of these names, while specialists in other groups have

largely ignored this work. The late Dr. Wilfred H. Osgood of Chicago therefore rendered a valuable service when in 1944 he invited the International Commission on Zoological Nomenclature to give an authoritative ruling on this subject.

3. It was evident from the outset that considerable difficulties must be anticipated, whatever the decision taken by the Commission. If the Commission were to rule that in the *Lehrbuch* Oken had complied with the requirements of the *Règles*, a great deal of work would be involved in many groups in determining the application of the numerous names which would then be seen to possess availability either as generic or subgeneric names and, in view of the early date of the *Lehrbuch*, there was every likelihood that this investigation would show that some, possibly many, of the Oken names were applicable to, and were the oldest names for, genera for which later names were in common use. If, on the other hand, the Commission were to rule that in the *Lehrbuch* Oken had not complied with the requirements of the *Règles*, then also it was evident that well-known genera currently known by Oken names would be found to require new names under the Law of Priority. In either case therefore it was certain that important issues affecting the stability of nomenclature were involved in the status to be accorded to names published in the *Lehrbuch*.

4. At the time when Dr. Osgood submitted his application, it would have been difficult, if not impossible, for the Commission to reach a conclusion on this matter, for a large part of the arguments which had been advanced for and against the acceptance of Oken's names turned on the meaning to be attached to the expression "nomenclature binaire" which then figured in Proviso (b) to Article 25. This latter problem, which formerly had been the cause of much controversy, was, at the time of the receipt of Dr. Osgood's application, *sub judice*, the Twelfth International Congress of Zoology at its meeting held at Lisbon in 1935 having decided that it was essential that this matter should be settled once and for all at the next (Thirteenth) International Congress and having, to this end, instructed the Commission to prepare a comprehensive Report on this subject for consideration by the Thirteenth Congress.

5. The question of the meaning of the expression "nomenclature binaire", the settlement of which was—as already explained—a prerequisite to the consideration of the status of Oken's *Lehrbuch* names was disposed of by the Thirteenth International Congress of Zoology in Paris in July 1948. On the unanimous recommendation of the Commission, with the equally unanimous support of the Section on Nomenclature, the Congress, after ruling that the foregoing expression had a meaning identical with that of the expression "nomenclature binominale", decided to delete from Proviso (b) to Article 25 (and also from Article 26) the expression "nomenclature binaire" and to replace it by the expression "nomenclature binominale" (see 1950, *Bull. zool. Nomencl.* 4 : 63—66). At the same time the Congress recognised that, where under the foregoing clarification of the *Règles*,

it became evident that a given book did not satisfy the requirements of Article 25, rapid use by the Commission of its Plenary Powers would be needed to prevent instability from arising in the nomenclature of any group in which names first published in the book concerned were in common use. For this purpose, the Congress decided that in such cases the prescribed period of waiting might be waived by the Commission which should therefore be free at once to act for the purpose of preventing well-known names from being discarded in favour of names hitherto treated as synonyms (*see* Proceedings of the Commission, Paris Session, 4th Meeting, Conclusion 13(3)(a)(iii), published in 1950, *Bull. zool. Nomencl.* 4 : 65).

6. Later during its Paris meeting the Thirteenth Congress approved also a recommendation that words should be inserted in the *Règles* making clear the meaning of the expression "les principes de la nomenclature binominale" as used in Proviso (b) to Article 25 (as amended earlier during the Congress). As so clarified, Proviso (b) to Article 25 provides that, in order to qualify as having applied "les principes de la nomenclature binominale" in any given work, an author must have consistently applied those principles in the book in question and not merely in a particular section or passage (*see* 1950, *Bull. zool. Nomencl.* 4 : 175). The purpose, and the effect, of this clarification of Article 25 is to make it clear that, when an author who does not use a binominal system of nomenclature nevertheless here or there in a given work applies to some species a name which, by reason of consisting of two words only, happens to constitute a binominal combination, the name in question is not to be treated as acquiring availability under the *Règles*.

7. The late Dr. Osgood's application regarding the status of names published in Oken's *Lehrbuch* was considered by the Commission at the third of its meetings held on Monday, 26th July 1948 (*see* 1950, *Bull. zool. Nomencl.* 4 : 365—366). In the discussion which then took place stress was laid upon the importance and urgency of the problem submitted by Dr. Osgood. It was then explained that the application had not been published in the *Bulletin of Zoological Nomenclature* (1950, *Bull. zool. Nomencl.* 4 : 365); nor has it since been published, as it was considered that it would be more convenient if publication were to be delayed until the present Report was also available. It is now annexed as Appendix I.⁹ At the Paris meeting it was felt that a further opportunity for study was desirable, in which to examine the situation anew in the light of the decisions that had just been taken to amend and clarify Proviso (b) to Article 25. The situation was complicated both by the diversity of practice among zoologists in different parts of the Animal Kingdom and by the fact that, owing to its rarity, relatively few zoologists had had an opportunity of studying Oken's *Lehrbuch* at first hand. The Commission therefore agreed (a) to take into consideration Dr. Osgood's application in regard to Oken's *Lehrbuch* as soon as possible after the close of the Paris Congress, and (b), for the purpose of facilitating that consideration, to invite the

⁹ See Footnote 1.

Secretary to confer with specialists on the question of the practice (whether acceptance or rejection) adopted in their respective groups, and to submit a Report thereon.

II. On the question whether in the “*Lehrbuch der Naturgeschichte*” Oken consistently applied the principles of binominal nomenclature

8. In the early part of 1944, shortly before the receipt of Dr. Osgood's application in regard to the status of names in Oken's *Lehrbuch*, I had occasion myself to investigate this matter in connection with a proposal submitted to the Commission by the late Dr. C. W. Stiles that the names of genera of the Order Carnivora from species of which had been reported parasites common to Man should, because of their importance from the point of view of Public Health, be added to the *Official List of Generic Names in Zoology*. For among the names which thus became candidates for admission to the *Official List* there were three Oken names (*Genetta* Oken ; *Grison* Oken ; *Tayra* Oken).¹⁰ At that time the principal scientific libraries had been evacuated from London to avoid risk of destruction by air-raids and it was therefore not possible for me personally either to examine the entries in Oken's *Lehrbuch* in regard to the foregoing names or to review the conclusions in regard to the status to be accorded to that work which I had formed when before the outbreak of war I had had occasion to consider this question in the course of my survey of the generic names of the butterflies. There was, however, as I knew, a copy of the *Lehrbuch* in the library of the Zoological Museum, Tring, and I accordingly sought the assistance in this matter of Dr. Karl Jordan, at that time the President of the International Commission. Dr. Jordan at once undertook to investigate this matter and in a letter dated 10th June 1944 he very kindly furnished a detailed Report. This Report is annexed to the present Report as Appendix 2.¹¹ At the same time I took the view that the general problem of the status of new names published in Oken's *Lehrbuch* (which had been raised by Dr. Osgood) and the particular problem of how to stabilise the names of the three genera of Carnivora from which parasites common to Man had been reported and for which names had been published by Oken in the *Lehrbuch* (which had been raised by the late Dr. Stiles) were of such importance that they should at once be brought to the attention of interested specialists, even though the war conditions then obtaining would inevitably render such a consultation only preliminary in character. I accordingly prepared a short note on this subject, which, however, owing to the long delays in printing inevitable at that time was not actually published until July 1945 (*Bull. zool. Nomencl.* 1 : 112—113).¹⁰

9. The general character of Oken's *Lehrbuch* is well illustrated by the analysis given by Dr. Jordan of the treatment accorded by Oken to what he called the first genus (1 Gattung) of his fifth tribe (5 Sippschaft). The genus is divided into six groups ; no Latin name is applied

¹⁰ See paragraph 5 of the present *Opinion*.

¹¹ See paragraph 4 of the present *Opinion*.

to the genus which has for its title only the German word "Muffer". Of the six groups into which the genus is divided four are headed both by a vernacular name and by a Latin noun, one is headed by a vernacular name (Stunk) and by two Latin nouns (*Mephitis* and *Viverra*), while the third group has only a vernacular name (Iltis). When we come to examine the terms applied to species (Arten), we find an equal lack of consistency of treatment. In the first group (*Meles*, Dachs) of the genus, each of the three species recognised is given an apparently binominal name, the first part of which consists of the word *Meles*. When we come to the second group (Stunk, *Mephitis*, *Viverra*), we find that each of the three species recognised is given a vernacular German name only (Zweistreifiger St. ; Fünfstreifiger St. ; Einstreifiger St.). Finally we have to note that each species is in turn subdivided, the appellations given to these subdivisions being of every possible variety, e.g. (a) vernacular names such as Teufelskind ; (b) a vernacular word followed by a Latin noun (which may be either a generic name or a univocal Latin specific name in the manner of Gesner and other writers of the pre-1758 age), an example of this kind being provided by the second subdivision of the first species of the second group (Stunk) of the genus "Muffer", where we find the entry "Yaguare, Zorills, Muffer" ; (c) a Latin binominal name such as *Gulo quitensis* (first species, third subdivision) ; and (d) a Latin trinominal name such as *Putorius americanus striatus* (second species, first subdivision).

10. The examples cited above show (1) that the system of nomenclature used by Oken in his *Lehrbuch* is utterly lacking in consistency ; (2) that it consists of the random use of Latin words and vernacular German words for the various categories recognised ; (3) that even if the terms applied to the genus (*Gattung*) and species (*Arten*) are disregarded, there is absolutely no consistency in the use of the terms employed to denote the units into which the various species are subdivided, it being apparently pure chance whether (i) a vernacular German word or (ii) such a word cited in conjunction with a Latin noun or (iii) a binominal combination of the Linnean type or (iv) a trinominal of the pre-1758 kind is used to denote the taxonomic unit in question.

11. In these circumstances I have no hesitation in reporting that in Volume 3 (Zoologie) of the *Lehrbuch der Naturgeschichte* Oken did not apply "les principes de la nomenclature binominale". Accordingly, no name appearing in the above volume of the *Lehrbuch* acquired any availability under the *Règles* in virtue of having been so published.

12. I have further to add that, prior to the clarification of Proviso (b) to Article 25 of the *Règles* by the Thirteenth International Congress of Zoology in Paris in 1948, the question of the availability of the names in Oken's *Lehrbuch* was examined by a number of authorities who rejected the claims advanced in favour of those names by Allen (J.A.) (1902), notwithstanding the fact that, before the Paris Congress, the presence in Proviso (b) of the ambiguous expression "nomenclature binaire" offered some scope for the defence of those names,

which has disappeared now that that expression has been replaced by the unequivocal expression "nomenclature binominale". These authorities include : (1) Stiles (C.W.) & Orleman, 1927, *Hyg. Lab. Bull.* **145** ; (2) Cabrera (A.), 1943, *Cienca* **4** (Nos. 4—5) ; Hershkovitz (P.), 1949, *J. Mammal.* **30** : 289—301. Of these authorities Dr. Cabrera, who is himself a member of the Commission, has kindly furnished me with a supplementary statement of his views, together with extracts from the salient portions of his paper of 1943. This statement is annexed to the present Report as Appendix 3.¹²

III. On the effects of alternative treatments to be accorded to the names published in Volume 3 (Zoologie) of Oken's "Lehrbuch der Naturgeschichte" on stability in nomenclature

13. The late Dr. Osgood pointed out that a number of names which first appeared in volume 3 (Zoologie) of Oken's *Lehrbuch der Naturgeschichte* had come to be commonly accepted for well-known and important genera, instancing in this connection in the Class Mammalia the names *Citellus* Oken (for the very large group of ground squirrels of Asia and America), *Panthera* Oken (as a subgeneric name for the large cats, including the lion, the tiger, the leopard and others) and *Thos* Oken for the jackals.¹³ Dr. Osgood himself (as he made clear in his letter to me of 13th September 1944, an extract from which is appended to his application)¹⁴ was strongly opposed to the acceptance of Oken's names but his references to the generic names cited above, coupled with the concluding remarks in his application, where he referred to the Commission's Plenary Powers, suggests that he had in mind that the Commission, when rejecting Oken's *Lehrbuch*, should make use of its Plenary Powers to preserve those of Oken's names which had taken deep root in the literature of mammalogy.

14. If such were in fact the ideas which Dr. Osgood had in mind, he only anticipated by a few years the view widely held and strongly expressed both within the Commission and in the general body of the Section on Nomenclature of the Paris and Copenhagen Congresses that means should be found for preventing decisions on purely technical nomenclatorial matters from having the effect of upsetting well-established names. It was indeed because the Paris Congress recognised that the declaration against the availability of non-binominal works that had hitherto been accepted (in whole or in part) on the ground that the nomenclature used therein, though not "binominal" was "binary" and therefore acceptable under the *Règles* might in some cases lead to the upsetting of well-known names that it took the action already described (paragraph 5) for simplifying the procedure to be followed by the Commission when using its Plenary Powers for the

¹² See paragraph 9 of the present *Opinion*.

¹³ See paragraph 1 of the present *Opinion*.

¹⁴ See paragraph 2 of the present *Opinion*.

purpose of validating generic names found to be invalid consequent upon the final rejection of the argument that the expression "nomenclature binaire" possessed a wider meaning than the expression "nomenclature binominale".

15. Oken's *Lehrbuch* being, in my opinion, a book which must be rejected as not satisfying the requirements of Proviso (b) to Article 25 (paragraph 11), it is necessary to consider whether any of the Oken names which, on the foregoing argument, are seen to be unavailable are nevertheless in such widespread use as to call for preservation under the Plenary Powers. This is a matter on which, for each group of the Animal Kingdom, only the specialists in that group are qualified to express an opinion. In the case of mammalogy it is already evident, however, that some authorities would be strongly opposed to the elimination of certain well-known Oken names now commonly used for important genera. Among these may be numbered first the late Dr. Osgood himself who would certainly have objected to the elimination of the names *Citellus*, *Panthera* and *Thos* (paragraph 13). Second, Mr. T. C. S. Morrison-Scott (Deputy Keeper, Department of Zoology, British Museum (Natural History), London), with whom and Dr. Edward Hindle (Scientific Director, Zoological Society of London) I had correspondence in 1946 and 1947 regarding the name *Pan* Oken as applied to the chimpanzee, has expressed himself as strongly opposed to the entire elimination of Oken's generic names for mammals. The relevant part of Mr. Morrison-Scott's letter is annexed to the present Report as Appendix 4.¹⁵ As will be there noted, Mr. Morrison-Scott points out that some of Oken's generic names have been accepted in such important works as Allen (G.M.), 1939, *Checklist of African Mammals* and Simpson (G.G.), 1945, *The Principles of Classification and a Classification of Mammals*.

16. Where a book fails to satisfy the requirements of Article 25, but the names in it are in general use or, if not all in use, can readily be assigned to their appropriate position in synonymy, it would be possible for the Commission to secure stability in the nomenclature in the group concerned by validating the whole book under its Plenary Powers. Accordingly, any name in such a book which was the oldest available name for a given genus would become the valid name for that genus, while names applicable to genera, for which there were older available names would disappear in synonymy. Theoretically, it would be possible for the Commission, if it so thought fit, to deal with Oken's *Lehrbuch* in this manner, that is, to validate it under the Plenary Powers. In fact, however, the adoption of this course would cause as much instability in nomenclature as would the disappearance of the Oken names, for the *Lehrbuch* would then need to be examined systematically, page by page, by specialists in all groups in the Animal Kingdom, since, although some Oken names have been brought into use, there are many more names included in the *Lehrbuch* which have

¹⁵ See paragraph 6 of the present *Opinion*.

been completely ignored and which it would then be necessary to take into account. This would be an extremely complicated and difficult task in view of the utter lack of consistency shown by Oken in the terminology applied by him to the species described in the *Lehrbuch*. This is well illustrated by the example given in the Report prepared by Dr. Jordan (Appendix 2).¹⁶ The virtual impossibility in many cases of determining whether a name was used as a generic name or was a trivial name printed with a capital initial letter would lead to endless difficulty in determining the status of the names in question, and at times would be virtually certain to lead to such confusion that the use of the Plenary Powers would be necessary to suppress the name in question. Moreover, even if ultimately, with occasional help from the Commission, the generic names employed in Oken's work could be reduced to some kind of order, there would still remain the difficulty presented at the species level of the treatment to be accorded to the specific names used by Oken, for (as already explained) though many of these are binominal (e.g. *Gulo quitensis*, the name for one of the sub-units of Species 1 in Division "b" of the first genus of the fifth Sippschaft), many also are trinominals (e.g. *Putorius americanus striatus*, the term applied to the first sub-unit of the second species of the same Division of the genus referred to above). I conclude therefore that any action to be taken by the Commission to secure availability for those of Oken's generic names which are in common use should certainly not take the form of using the Plenary Powers to validate Oken's *Lehrbuch* as a whole, for that course would give rise to more numerous and more serious difficulties than would follow from the rejection of the *Lehrbuch* under the normal operation of the *Règles* and would be calculated to cause far greater instability and confusion in nomenclature.

17. If therefore express action is to be taken to prevent the confusion and instability which would follow the elimination in synonymy of certain of Oken's generic names, that action must, it is suggested, be selective in character and directed exclusively towards meeting the particular ends in view. Fortunately, it is possible in this matter to draw upon the precedent set by the Commission when dealing with the very similar problem presented by the generic names used for insects by Geoffroy (E.L.) in his celebrated *Histoire abrégée des Insectes qui se trouvent aux Environs de Paris*, an admittedly non-binominal work published in 1762, many of the generic names published in which are, however, in general use. The problem presented by this book was considered by the Commission in Paris (Paris Session, 13th Meeting, Conclusions 14—16) (see 1950, *Bull. zool. Nomencl.* 4 : 336—370), and the decision then taken is, I consider, extremely relevant to the consideration of the action to be taken in regard to the *Lehrbuch* of Oken. The action taken by the Commission as regards Geoffroy's *Histoire abrégée* was threefold in character : (1) the Commission

¹⁶ See paragraph 4 of the present *Opinion*.

declared that this work did not satisfy the requirements of Article 25 and therefore that names appearing in it were not available under the *Règles*; (2) the Commission at once used its Plenary Powers to validate one of the most important names thus found to be invalid (*Corixa Geoffroy*); (3) the Commission placed on record its view that "certain of the generic names published in the foregoing work, being in wide use, should certainly be validated in the interests of stability in nomenclature". In accordance with the last of these conclusions the Commission invited me, as the Secretary to the Commission, to confer with specialists in the various Orders of insects concerned, with a view to "the submission to the Commission" of "proposals for the validation, under the Plenary Powers, of such of the names concerned, the rejection of which would lead to instability or confusion in the nomenclature of the group in question, so that, in the light of the statements so received, the Commission may validate such of the names concerned as may appear to it to be appropriate". The adoption of a similar procedure in the case of generic names published by Oken in his *Lehrbuch*, when these are found to be in general use, would seem to me to be both highly appropriate and extremely desirable.

18. In addition to the names of the three genera of Carnivora published by Oken on which (as explained in paragraph 8 above) there is an outstanding application by the late Dr. C. W. Stiles, the Commission has had before it for some time an application (Z.N.(S.) 261) submitted by Professor Harold Kirby (*University of California, Berkeley, California, U.S.A.*) for the validation, under the Plenary Powers, of the generic name *Stentor* Oken, 1815 (Class Ciliophora). In agreement with Professor Kirby, the publication of this application was deferred until it could be published at the same time as the present Report. It is accordingly now published immediately after the present Report.¹⁷

19. In March 1952 I issued a general appeal to specialists to furnish statements of their views on the question of the availability of names published in Oken's *Lehrbuch* and at the same time to furnish particulars of any generic names published by Oken currently in use in their respective groups which, in their opinion, ought to be preserved, if the Commission were to rule that in his *Lehrbuch* Oken did not satisfy the requirements of Article 25 and therefore that no name published in that work acquired the status of availability in virtue of having been so published (Hemming, 1952, *Bull. zool. Nomencl.* 7 : 195—196).¹⁸ None of the specialists who responded to the foregoing appeal considered that Oken's *Lehrbuch* was a nomenclatorially available work. A number of these specialists, however, furnished particulars relating to individual Oken names in common use for genera in their own groups which they recommended should be validated under

¹⁷ For the decision of the International Commission in regard to the name *Stentor* Oken see *Opinion* 418.

¹⁸ The text of the appeal here referred to has been reproduced in paragraph 10 of the present *Opinion*.

the Plenary Powers, in order to prevent the disturbance and confusion in nomenclature which would otherwise be inevitable. These applications will be published in the *Bulletin* as soon as possible.

Summary of Conclusions

20. In the light of the evidence examined, and of the considerations advanced in the present Report, I now summarise, as follows, the conclusions which I have formed on the subject of the availability of the names published in the period 1815—1816 in Volume 3 (Zoologie) of Oken's *Lehrbuch der Naturgeschichte* :—

- (1) In Volume 3 (Zoologie) of the *Lehrbuch der Naturgeschichte* which was published in the period 1815—1816, Oken did not apply the principles of binominal nomenclature, as required by Proviso (b) to Article 25 of the *Règles*, as clarified by the Thirteenth International Congress of Zoology, Paris, 1948 (paragraphs 9—10).
- (2) In consequence of (1) above, no name published by Oken in the foregoing work acquired any status in zoological nomenclature in virtue of having been so published (paragraph 11).
- (3) In some groups of the Animal Kingdom, e.g. in mammalogy, certain generic names are commonly accepted with priority from Oken's *Lehrbuch*. In some cases genera to which these names are applied are well known and of wide distribution. The elimination of the Oken names for these genera would lead to instability and confusion in the nomenclature of the groups concerned (paragraphs 13—15).
- (4) Availability for the Oken generic names now in common use could be provided by the use by the Commission of its Plenary Powers to render Volume 3 of Oken's *Lehrbuch* available under the *Règles* and thus to validate *en bloc* the new names published in that book. The adoption of this course in the case of Oken's *Lehrbuch* would, however, be open to strong objection, for the nomenclature employed by Oken in that work is so confused that the grant of availability to that work as a whole would be bound to give rise to numerous and serious difficulties by reason of the large number of names introduced by Oken which have hitherto been ignored (paragraph 16).
- (5) Availability could be secured for such of Oken's generic names as are in common use and the disappearance of which in synonymy would give rise to instability and confusion by the selective use by the Commission of its Plenary Powers, in the same way that the Commission has already decided to use those Powers in relation to the parallel case of the generic names published

in 1762 by Geoffroy (E.L.) in his *Histoire abrégée des Insectes qui se trouvent aux Environs de Paris*. This is the course which I recommend should now be taken (paragraph 17).

FRANCIS HEMMING,

*Secretary to the International
Commission on Zoological Nomenclature*

Secretariat of the Commission :

28 Park Village East,
Regent's Park,
LONDON, N.W.1, England.

9th March, 1954.

Appendix 1¹⁹

Application relating to the status of the names in Oken's *Lehrbuch der Naturgeschichte* submitted to the International Commission on Zoological Nomenclature by Dr. Wilfred H. Osgood in May 1944.

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Appendix 2²⁰

On the system of classification used by Oken (L.) in his *Lehrbuch der Naturgeschichte* of 1816. By Karl Jordan, Ph.D., F.R.S.

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Appendix 3²¹

On the question of the status of names in Oken, 1815—1816, *Lehrbuch der Naturgeschichte 3* (Zoologie). By Angel Cabrera.

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Appendix 4²²

On the question of the use of generic names published in Oken's *Lehrbuch der Naturgeschichte*. By T. C. S. Morrison-Scott.

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¹⁹ This appendix has already appeared in Paragraph 1 of this *Opinion*.

²⁰ This appendix has already appeared in Paragraph 4 of this *Opinion*.

²¹ This appendix has already appeared in Paragraph 9 of this *Opinion*.

²² This appendix has already appeared in Paragraph 6 of this *Opinion*.

14. Publication of Mr. Hemming's Report and associated documents : Mr. Hemming's Report, together with the associated documents annexed thereto as Appendices, was published on 11th May 1954 (Hemming, 1954, *Bull. zool. Nomencl.* **9** : 193—201 (Report) ; Osgood, 1954, *ibid.* **9** : 202—203 (application) ; Jordan, 1954, *ibid.* **9** : 204—206 (technical survey) ; Cabrera, 1954, *ibid.* **9** : 206—207 (comment) ; Morrison-Scott, 1954, *ibid.* **9** : 207 (comment)).

15. Comments elicited by the publication of Mr. Hemming's Report : The publication of Mr. Hemming's Report elicited comments from three specialists, namely (1) Professor Dr. Robert Mertens (*Frankfurt a.M.*) ; (2) Dr. Philip Hershkovitz (*Chicago, Ill.*) ; (3) Professor E. Raymond Hall (*Lawrence, Kansas*)²³. These specialists were all agreed that the system of nomenclature used by Oken in his *Lehrbuch* did not satisfy the requirements of Article 25 of the *Règles*. On the question whether names first published by Oken and in common use should be validated by the Commission under its Plenary Powers there was, however, disagreement. Professor Mertens who had himself submitted a recommendation in this sense on behalf of a name published by Oken for a genus belonging to the Class Amphibia²⁴ considered that Oken names should be validated in suitable cases, while Dr. Hershkovitz and Professor Hall were opposed to the validation of any of Oken's names, considering that these names should take priority in relation to other names as from the first date subsequent to Oken's *Lehrbuch* on which they were validly published. The communications so received are reproduced in the immediately following paragraphs.

16. Comment received from Professor Dr. Robert Mertens (Forschungs-Institut und Natur-Museum Senckenberg, Frankfurt a.M., Germany) : In an application relating to the generic name *Bombina* Oken, 1816 (Class Amphibia) Professor Dr. Robert

²³ After the issue of the Voting Paper relating to the present case (see paragraph 20 of the present *Opinion*) a letter dated 17th December 1954 was addressed to the Commission by Dr. Robert R. Miller (*University of Michigan, Ann Arbor, Michigan, U.S.A.*), urging that " all the names in Oken, 1816, be ruled out if the Commission should decide that this work is unavailable "

²⁴ See paragraph 16 this page.

Mertens (*Forschungs-Institut und Natur-Museum Senckenberg, Frankfurt a.M.*) wrote on 20th October 1954 as follows (Mertens, 1955, *Bull. zool. Nomencl.* **11** : 132) :—

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3. Recently there has, however, been a tendency to reject generic names published by Oken in his *Lehrbuch* and at the present time the status of that work is under examination in accordance with a request addressed to the Secretary to the International Commission by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 365—366). I agree with the conclusion reached by Mr. Hemming in his Report on this subject (1954, *Bull. zool. Nomencl.* **9** : 193—201) that Oken did not apply the principles of binominal nomenclature in his *Lehrbuch der Naturgeschichte*. It is important therefore that the Commission should now protect the well-known generic name *Bombina* Oken.

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17. Comment received from Dr. Philip Hershkovitz (Chicago Natural History Museum, Chicago, Illinois, U.S.A) : On 3rd November 1954, Dr. Philip Hershkovitz (*Chicago Natural Museum, Chicago, Illinois, U.S.A.*) addressed a letter to the Office of the Commission with which he enclosed a memorandum entitled “Critical Remarks on the Status of Names in Oken’s *Lehrbuch*, together with a number of offprints of a paper of his entitled “Status of Names credited to Oken, 1816”, which had been published in 1949 (*J. Mammal.* **30** : 289—301). The following is the text of the first of the foregoing papers, exclusive of the portion which is concerned with the discussion of the names of individual genera of mammals which, though of great interest from the point of view of those names, falls outside the scope of the present case which is concerned only with the general principle involved. The portion so excluded has been transferred to the Commission’s File Z.N.(S.) 482, relating to the mammal names proposed in Oken’s *Lehrbuch*, of which it will form one of the basic documents.

**Critical Remarks on the Status of Names in
Oken’s “Lehrbuch”**

Availability of names published in Oken’s *Lehrbuch der Naturgeschichte* (1815—1816) has been discussed by Francis Hemming

in the *Bulletin of Zoological Nomenclature* (9 : 193—201, 1954). His report is summarized in five conclusions (pp. 200—201).

Conclusions (1) and (2) point to the lack of status of names published in the *Lehrbuch* because Oken's system does not conform to the principles of binominal nomenclature. I agree with these conclusions.

Conclusion (3) states that "generic names" for certain well-known and widely distributed mammals are commonly accepted with priority from Oken's *Lehrbuch* and that the elimination of these names "would lead to instability and confusion in the nomenclature".

This conclusion is ambiguous in some respects and contradictory in others, for the following reasons :

(a) Names used by Oken cannot be certified as "generic names" according to the *Règles* in general, and according to Hemming in particular, as shown by him in paragraph 10 (p. 196) of his report in the *Bulletin* cited above, and in Conclusions (1) and (2) referred to above.

(b) In my opinion, instability in nomenclature is an inevitable consequence of the misapplication of a name, and of the use of an improperly constituted name published in a work that does not consistently apply the principles of binominal nomenclature. Conversely, stability is derived from the correct application of technical names according to Article 25 of the *Règles*, as clarified.

(c) After roundly condemning the *Lehrbuch* as a virtual Pandora's box of nomenclatorial confusion and irrationality, the Honorary Secretary to the International Commission on Zoological Nomenclature concludes that the acceptance of certain names from the *Lehrbuch* implies stability and that their rejection invites instability.

It was shown by me in 1949 (*Journal Mammal.* 30 : 289) that the discard of *all* name for mammals attributed to Oken (though not necessarily introduced by him) does not result in confusion and instability.

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Conclusion (4) given by Hemming states that validation *en bloc* of names in the *Lehrbuch* would "give rise to numerous and serious difficulties by reason of the large number of names introduced by Oken which have hitherto been ignored (paragraph 16)". This is too true.

Conclusion (5) recommends that "availability could be secured for such of Oken's generic names as are in common use and the disappearance of which in synonymy would give rise to instability and confusion by the selective use by the Commission of its Plenary Powers"

This conclusion offers a solution for a problem that does not exist. In any case, the remedy offered is worse than the ill imagined. No action of the Commission can change the text of the *Lehrbuch* to give a semblance of valid generic status to its names. With the exception of *Citellus*, *Pan* and *Panthera*, identical names in current use heretofore attributed to Oken can be cited without loss of priority from nomenclaturally legitimate sources. "Citellus" and "Pan" as employed by Oken merit no special consideration. They can be validated from binominal works of later date by suspension of the *Règles*. No power, including the Plenary Powers of the Commission, can convert the "P" of Oken into *Panthera* or into anything else except "P.", or possibly "P[ardalis]", as employed by Oken. In *Opinion* 110 the Commission adopted *Lagidium* Meyen, 1833 in preference to "Viscaccia" Oken, 1816, by suspension of the *Règles*. The Secretary to the Commission now proposes that Oken's name be given preference by the same device of Rule suspension!

Conclusion

If stability is gained by validation of certain names attributed to Oken, the names should be validated from authorities employing the principles of binominal nomenclature. The Commission can use its Plenary Powers to suspend Article 25 for the conservation of names that would lose their priority if dated later than 1816. If, however, the Commission uses its powers to suspend the *Règles in toto*, as would be required for validation of the *Lehrbuch* or parts of it, the Commission would destroy the very source of its own power.

18. Summary and recommendations prepared by Mr. Hemming for consideration by the Commission when voting on the present case : On 22nd November 1954, Mr. Francis Hemming completed the following paper summarising the history of the present case and submitting a recommendation for consideration by the Commission when voting on the present case :—

On the status of new names published in Oken's "Lehrbuch der Naturgeschichte"

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

Character of Oken's "Lehrbuch" : The character of the nomenclature used by Oken in his *Lehrbuch* is clearly shown in the Report by Dr. Karl Jordan²⁵ (*Bull. zool. Nomencl.* 9 : 204—206). This seems to me to leave no doubt on the question of the availability of new names published in Oken's *Lehrbuch*, the confused and inconsistent system of nomenclature employed not being consistent with the requirement

²⁵ For Dr. Jordan's Report see paragraph 4 of the present *Opinion*.

in Proviso (a) to Article 25 that, in order that a given book may be accepted as complying with the *Règles*, the author must in that work have consistently applied the principles of binominal nomenclature. It cannot be said that Oken did this in his *Lehrbuch*.

(2) Views received on the question of the availability of names in Oken's "Lehrbuch" : Without exception all the zoologists who have submitted statements of their views on the question of the "availability" of Oken's *Lehrbuch* are in agreement that in this work Oken did not comply with the requirements of Article 25 of the *Règles*. Communications in this sense have been received from :—(1) Wilfred H. Osgood (*Chicago*), by whom this matter was first brought to the attention of the Commission (*Bull. zool. Nomencl.* 9 : 202—203); (2) Karl Jordan (*Tring, England*), Honorary Life President of the Commission (*Bull. zool. Nomencl.* 9 : 204—206); (3) Commissioner Angel Cabrera (*Cuidad Eva Peron, Argentina*) (*Bull. zool. Nomencl.* 9 : 206—207); (4) The Committee of Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists; (5) Commissioner Robert Mertens (*Frankfurt a.M.*); (6) Commissioner L. B. Holthuis (*Leiden*); (7) Philip Hershkovitz (*Chicago*).

(3) Possible courses before the Commission : If it be accepted that Oken's *Lehrbuch* does not satisfy the requirements of the *Règles*, there are, it seems to me, three possible courses of action open to the Commission, namely :—

- (a) to rule that the *Lehrbuch* is not available for nomenclatorial purposes and to leave specialists in the various groups (i) to trace the first work subsequent to Oken in which a name was validly given to the genera and species for which names appear in the *Lehrbuch* and (ii) to ascertain when and in what sense the rejected Oken names were first subsequently used ;
- (b) to use its Plenary Powers to validate Oken's *Lehrbuch* ;
- (c) to rule that the *Lehrbuch* is not available for nomenclatorial purposes but to intimate at the same time its willingness to give sympathetic consideration to applications submitted to it for the validation of individual names in the above work which can be shown (a) to be in general use and (b) to be names, the rejection of which would give rise to name-changing with consequent instability and confusion in the nomenclature of the groups concerned.

(4) Course (a) (rejection of Oken's "Lehrbuch" unaccompanied by any further action) : This seems to me to be open to strong objection. Its adoption would throw a heavy and unnecessary burden upon specialists in those groups where Oken names are in use, but, much worse than this, it would inevitably lead to the disappearance of important names which ought in the interests of nomenclatorial stability

to be preserved. It would, in my view, be inconsistent with the basic principles underlying the *Règles*, as laid down in the Preamble prefixed thereto by the Fourteenth International Congress of Zoology, Copenhagen, 1953 (*Copenhagen Decisions zool. Nomencl.* : 22, Decision 19), for the Commission deliberately to act in a way which courted instability and confusion in nomenclature. Moreover, the adoption of Course (a) would run counter to the expressed view of all except one of the specialists who have communicated with the Commission on this subject. The exception is Hershkovitz (*Chicago*) who in a paper received on 8th November (i.e. only three days before the expiry of the Prescribed Period of Public Notice) and therefore too late for publication in the *Bulletin of Zoological Nomenclature* examined the generic names used by Oken for mammals and expressed the view that, on the rejection of Oken's *Lehrbuch*, the genera concerned would bear either the same names, though attributed to different authors and to later dates, or would bear other names now currently used for them. Without expressing a view on the foregoing conclusions beyond observing that they do not tally with views expressed by other mammalogists, it must be noted that in the only other document received in which this aspect of the problem is directly discussed—the report by Wilimovsky submitted by the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists—it is stated that to leave priority to take its course would lead, in the case of the names of fishes, not only to the disappearance of well-established generic names but also in some cases to the introduction as from later authors and later dates of names published by Oken, the nominal genera bearing these later names representing a different concept from that represented by the same names as published by Oken.

(5) Course (b) (validation of Oken's "Lehrbuch" under the Plenary Powers) : No one has suggested that Oken's *Lehrbuch* should be validated under the Plenary Powers, and this possibility is only mentioned here, since on any theoretical analysis of the courses of action which might be adopted by the Commission this is clearly one which ought to be considered, even if only to be at once dismissed. It is only necessary to observe that the validation of Oken's *Lehrbuch* would involve not only the validation of the large number of generic names not currently accepted by specialists but also the validation of the very much larger number of specific names first published in this work which are not now in use. The resuscitation of these names would involve name-changing on a very large scale and would certainly cause great confusion. From every point of view, Course (b) may therefore at once be ruled out.

(6) Course (c) (rejection of Oken's "Lehrbuch", combined with an intimation by the Commission of its willingness to validate Oken names where necessary in the interests of nomenclatorial stability) : In some groups, for example in the Class Insecta in the Orders Hemiptera (China, *in litt.*, 21st April 1952) and the butterflies (Hemming) Oken's

Lehrbuch does not present a serious problem, the new generic names introduced in the *Lehrbuch* being junior synonyms of generic names of older date. In other groups it is far otherwise. For example, in the Class Ciliophora the name *Stentor* Oken is involved; in the Class Crustacea, the name *Mitella*; in the Class Amphibia, the name *Bombina*; in the Class Pisces, a number of important names in current use; in the Class Mammalia such names as *Pan*, *Genetta*, *Panthera*, etc. Of the numerous specialists who have expressed opinions on the method to be adopted for preventing the confusion which would result from the disappearance of important Oken names all except one favour the use by the Commission of its Plenary Powers for the purpose of validating important Oken names in current use. These include:—(1) the late Harold Kirby (*University of California, Berkeley, Cal.*); (2) G. Kolosváry (*Hungary*); (3) Dora Priaulx Henry (*Seattle*); (4) L. B. Holthuis (*Leiden*); (5) Robert Mertens (*Frankfurt a.M.*); (6) the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists (W. I. Follett; Norman J. Wilimovsky; Charles M. Bogert; Fred. R. Cagle; Hobart M. Smith; Robert C. Stebbins); (7) Ethelwynn Trewavas (*British Museum (Natural History)*); (8) T. C. S. Morrison-Scott (*British Museum (Natural History)*); (9) George Gaylord Simpson (*American Museum of Natural History, New York*); (10) J. C. Trevor (*University Museum of Archaeology and Ethnology, Cambridge University*). The one specialist who holds a different view is Philip Hershkovitz (*Chicago*) who, while advocating the rejection of the *Lehrbuch* (a question on which all the specialists concerned are agreed) also advocates (as noted in paragraph (4) above) the rejection without exception of all the names published in that work²⁶.

(7) Course Recommended : For the reasons set out in the Report now submitted (see paragraph 1 above), I recommend that the Commission should give a Ruling that in the Zoologie volume of the *Lehrbuch* Oken did not apply the principles of binominal nomenclature and that new names in that work accordingly possess no status in nomenclature in virtue of having been so published. On the question of the procedure to be adopted in relation to generic names in common use with priority as from Oken, it is relevant to recall that in Paris in 1948 the Commission dealt with an exactly similar problem when it considered the treatment to be accorded to important names currently accepted as from non-binominal authors; the Commission then recommended, and the Thirteenth International Congress of Zoology so approved, that there should be inserted in Article 25 a provision prescribing a special simplified procedure for the purpose of enabling the Commission rapidly to use its Plenary Powers for the purpose of preserving well-known names published in non-binominal works found to be invalid (1950, *Bull. zool. Nomencl.* 4 : 65). At the same

²⁶ Subsequent to the completion of the above paper a communication in a similar sense was received from Professor E. Raymond Hall (*Kansas*). See paragraph 19 of the present *Opinion*.

Session, the Commission applied the foregoing provision for the purpose of validating the generic name *Corixa* Geoffroy, 1762, a name published in the non-binominal work entitled *Histoire abrégée des Insectes qui se trouvent aux Environs de Paris*, and, when dealing with foregoing work as a whole, issued a general invitation to entomologists to submit applications for the validation of important names published in it, at the same time giving an assurance that sympathetic consideration would be given to applications so submitted (1950, *Bull. zool. Nomencl.* 4 : 368—370). The foregoing decisions have since been embodied in *Opinion* 228 (Geoffroy) and *Opinion* 281 (*Corixa*). The procedure for dealing with cases such as the present has thus been already laid down and I recommend that it should now be followed.

(8) Draft Ruling submitted : In the light of the foregoing particulars, I submit in the attached Annexe the draft of a Ruling on the present case which I commend to the consideration of the Commission. The wording proposed follows closely that employed in *Opinion* 228 (case of Geoffroy, 1762).

ANNEXE

Draft Ruling relating to the status of Oken's "Lehrbuch" submitted for the consideration of the Commission

RULING :—(1) In Volume 3 (Zoologie) of the work entitled *Oken's Lehrbuch der Naturgeschichte*, published in 1815—1816, Lorenz Oken did not apply the principles of binominal nomenclature as required by Proviso (b) to Article 25, as amended by the Thirteenth International Congress of Zoology, Paris, 1948, and accordingly no name published in the foregoing work acquired the status of availability by reason of having been so published.

(2) The title of the foregoing work is accordingly hereby placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature*.

(3) Specialists in the groups dealt with in the foregoing work are invited to submit to the International Commission on Zoological Nomenclature applications for the validation under the Plenary Powers of any name published in it, the rejection of which would, in their opinion, lead to instability or confusion in the nomenclature of the group concerned.

19. Comment received from Professor E. Raymond Hall (University of Kansas, Lawrence, Kansas, U.S.A.): On 18th November 1954, Professor E. Raymond Hall (*University of Kansas, Lawrence, Kansas, U.S.A.*) addressed a letter to the Office of the Commission commenting upon the present case and also on the case of the individual name *Stentor* Oken, 1815 (Class Ciliophora). Though received in the Office of the Commission just before the issue to the Commission of the Voting Paper in the present case, Professor Hall's letter was too late to permit of reference being made to it in the summary then submitted to the Commission (paragraph 18 above). The following is the portion of Professor Hall's letter which was concerned with the present case :—

Receipt of a copy of comments on . . . the status of names published in Oken's *Lehrbuch der Naturgeschichte* as transmitted to you under date of 3rd November 1954, by Philip Hershkovitz²⁷ [Commission Reference Z.N.(S.) 153] prompts me to write that we have re-examined pertinent materials available here, including pages 193—218 of volume 9 of the *Bulletin of Zoological Nomenclature*, and that we agree with Hershkovitz. That is to say, we favor dropping such of Oken's names as are in use in favor of the next available authority or even name. Indeed, we have in practice been doing this. See, for example, our use of *Spermophilus* instead of *Citellus* in *Univ. Kansas Publ., Mus. nat. Hist.* 7 : 483 ; 7 : 543, 1954. Not using Oken, in our view, will be a convenience in mammalogy, and also a means of achieving desirable stability.

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III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

20. Issue of Voting Paper V.P.(54)91 : On 26th November 1954, a Voting Paper (V.P.(54)91) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the nomenclatorial status of Oken's *Lehrbuch der Naturgeschichte* submitted in the Annexe to the paper by the Secretary [i.e. in the Annexe to the paper reproduced in paragraph 18 of the present *Opinion*] simultaneously with the present Voting Paper".

²⁷ For Dr. Hershkovitz's communication see paragraph 17 of the present *Opinion*.

21. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 26th February 1955.

22. Particulars of the Voting on Voting Paper V.P.(54)91 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(54) 91 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-two (22) Commissioners (arranged in the order in which Votes were received) :*

Mertens ; Holthuis ; Hering ; Lemche ; Stoll ; Bradley (J.C.) ; Vokes ; Esaki ; Jaczewski ; Bodenheimer ; Dymond ; Bonnet ; Riley ; Hankó ; Boschma ; Miller ; Key ; do Amaral ; Hemming ; Cabrera (except Ruling (3)) ; Kühnelt ; Sylvester-Bradley ;

(b) *Negative Votes : one (1) (for a portion only) :*

Cabrera (Ruling (3) only) ;

(c) *On Leave of Absence : one (1) :*

Prantl ;

(d) *Voting Papers not returned :*

None.

23. Declaration of Result of Vote : On 27th February 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(54)91, signed a Certificate that the Votes cast were as set out in paragraph 22 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

24. Preparation of the Ruling given in the present " Opinion " : On 2nd March 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(54)91.

25. At the time of the submission of the present application the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

25. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

27. The present *Opinion* shall be known as *Opinion* Four Hundred and Seventeen (417) of the International Commission on Zoological Nomenclature.

DONE in London, this Second day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

**OPINIONS AND DECLARATIONS
RENDERED BY THE INTER-
NATIONAL COMMISSION ON
ZOOLOGICAL NOMENCLATURE**

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 2. Pp. 43—68

OPINION 418

Validation under the Plenary Powers of the generic
name *Stentor* Oken, 1815 (Class Ciliophora)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 418

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948).

B. The Members of the Commission

(Arranged in order of precedence by reference to date of election or of most recent re-election as prescribed by the International Congress of Zoology)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Histoire, Leiden, The Netherlands*)
(1st January 1947)

Senor Dr. Angel CABRERA (*Eva Peron, F.C.N.G.R. Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), (London)*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a. M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (12th August 1953) (*Vice-President*)

Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*) (12th August 1953) (*President*)

Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*)
(12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N. Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*)
(29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*)
(6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

OPINION 418

VALIDATION UNDER THE PLENARY POWERS OF THE GENERIC NAME "STENTOR" OKEN, 1815, (CLASS CILIOPHORA)

RULING :—(1) The following action is hereby taken under the Plenary Powers :—

- (a) The under-mentioned generic names are hereby suppressed :—
- (i) for the purposes of the Law of Priority but not for those of the Law of Homonymy :—
 - (α) *Eclissa* Modeer, 1790 ;
 - (β) *Ecclissa* Schrank, 1803 ;
 - (γ) *Linza* Schrank, 1802 ;
 - (ii) for the purposes both of the Law of Priority and of the Law of Homonymy : *Stentor* Geoffroy Saint-Hilaire, 1812 ;
- (b) The under-mentioned generic name is hereby validated : *Stentor* Oken, 1815 (a name published in a work rejected for nomenclatorial purposes) ;
- (c) The under-mentioned specific names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :—
- (i) *stentoria* Linnaeus, 1758, as published in the combination *Hydra stentoria* ;
 - (ii) *stentorea* Linnaeus, 1767, as published in the combination *Hydra stentorea* (an emenda-

tion of *stentoria* Linnaeus, 1758, as published in the combination *Hydra stentoria*);

- (d) It is hereby directed that the nominal species *Stentor muelleri* Ehrenberg, [1832], be interpreted by reference to the description and figures published therefor by Ehrenberg in 1838 (*Die Infusionsth.* : 262);
- (e) All type selections for the genus *Stentor* Oken, 1815, made prior to the present Ruling are hereby set aside and the nominal species *Stentor muelleri* Ehrenberg, [1832], as defined under (d) above, is hereby designated to be the type species of the foregoing genus.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 998 : *Stentor* Oken, 1815, as validated under the Plenary Powers under (1)(b) above (gender : masculine) (type species, by designation under the Plenary Powers under (1)(e) above : *Stentor muelleri* Ehrenberg, [1832], as defined under the Plenary Powers under (1)(d) above).

(3) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) The three generic names specified in (1)(a)(i) above, as there suppressed under the Plenary Powers (Name Nos. 440 to 442 respectively);
- (b) *Stentor* Geoffroy Saint-Hilaire, 1812, as suppressed under the Plenary Powers under (1)(a)(ii) above (Name No. 443);
- (c) *Tubaria* Thienemann, 1828 (a junior objective synonym of *Stentor* Oken, 1815) (Name No. 444);

(d) *Stentorella* Reichenbach, 1828 (a junior objective synonym of *Stentor* Oken, 1815) (Name No. 445) ;

(4) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 733 : *muelleri* Ehrenberg, [1832], as published in the combination *Stentor muelleri* and as interpreted under the Plenary Powers under (1)(d) above (specific name of type species of *Stentor* Oken, 1815).

(5) The under-mentioned specific names are hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Numbers severally specified below :—

(a) The two specific names specified in (1)(c) above, as there suppressed under the Plenary Powers (Name Numbers 312 and 313 respectively) ;

(b) *solitarius* Oken, 1815, as published in the combination *Stentor solitarius* (a name published in a work rejected for nomenclatorial purposes) (Name No. 314).

I.—THE STATEMENT OF THE CASE

The question of the possible use of the Commission's Plenary Powers for the purpose of validating the generic name *Stentor* Oken, 1815 (Class Ciliophora)¹, the problem with which the

¹ For the decision by the Commission rejecting Oken's *Lehrbuch der Naturgeschichte* see *Opinion* 417 (published in the immediately preceding Part of the present Volume).

present *Opinion* is concerned, first formed the subject of correspondence between the Secretary and the late Professor Harold Kirby (*University of California, Berkeley, California, U.S.A.*) in the summer of 1945. Professor Kirby then intimated that in view of the complexity of the early literature some time would need to elapse before he was in a position to submit to the Commission an analysis of the history of this case. It was agreed in later correspondence between Mr. Hemming and Professor Kirby that the issues involved in the present case should be laid before the Commission simultaneously in two documents, namely: (1) a paper by Professor Kirby dealing with the historical and taxonomic aspects of this case and indicating in general terms the nature of the solution which he desired the Commission to adopt; (2) a brief Report by the Secretary setting out the detailed action which it would be necessary for the Commission to take if it were to approve the solution advocated by Professor Kirby. The paper prepared under this arrangement by Professor Kirby, which was received in the Office of the Commission on 20th April 1950, was as follows:—

**On the need for validating the name “*Stentor*” Oken, 1815
(Class *Ciliophora*) for use in its accustomed sense**

By HAROLD KIRBY

(*University of California, Berkeley, California, U.S.A.*)

Several species of well-known ciliates have for more than a century usually been placed in the genus *Stentor*, and because of the particular value of these ciliates for research and in class instruction, as well as the frequency with which they come to the attention of microscopists, there is a large literature under the name *Stentor*. The name has not yet been placed in the *Official List of Generic Names in Zoology*. Examination of the nomenclatural status of the genus has shown that several points of confusion, hitherto usually ignored, must be cleared up. The name for the genus and its type species should be decisively established as soon as possible by appropriate action by the International Commission on Zoological Nomenclature.

2. The first record of observation of ciliates now included in *Stentor* was read by Abraham Trembley to the Royal Society of London in 1744 and was published in 1745 in the *Philosophical Transactions*, 43 : 180 ff. He reported having seen in fresh water animalcula which De Réaumur judged to belong to the general class of Polypi. Part of the

paper is devoted to an account of clustering Polypi, which Trembley stated were named by De Réaumur "les Polypes en bouquet"; these were colonial vorticellids, probably *Zoothamnium*. Trembley also wrote of small Polypi of a different sort from those that are found in clusters, which De Réaumur thought proper to distinguish by the name of Tunnel-like Polypi. He gave a sufficiently informative account of these animalcula and their manner of division so that it is evident that he dealt with *Stentor*. He reported being acquainted with three species of these Polypi, which are respectively green, blue, and white.

3. In *Employment for the Microscope* (1753, pp. 330—334) Henry Baker wrote of Funnel-Animals which he found attached to a parcel of snail's eggs, and he quoted Trembley's account, stating in a footnote that he was pleased to find that de Réaumur and Trembley had ideas of the creature so nearly like his own. He gave a figure (pl. 13, fig. 1) which evidently depicts a species of the genus known later as *Stentor*, though he supplied no sufficient information by means of which one could identify it with *St. polymorphus*, as did Ehrenberg (1838, *Infusionsth.*: 263).

4. Figures of an organism of this group were published in 1775 by Rosel von Rosenhof (*Insectenbelust.*, 3 : pl. 94, figs. 7, 8) who discussed it in the text (:585) under the name "der schallemeynähnliche Affterpolyp". The figures represent one of the colorless species, which Ehrenberg (1838, *Infusionsth.*: 262) considered to be the one that he later named *St. muelleri*; but the species represented by Rösel cannot actually be identified.

5. The first scientific name given to a ciliate that now belongs to the genus *Stentor* was *Hydra stentoria* Linnaeus (1758, *Syst. Nat.* (ed. 10) 1 : 817). The name was applied to the representation of the organism by Rösel. Under the name, Linnaeus referred to four of Rösel's figures (*Insectenbel.*, 3 : pl. 94, figs. 5, 6, 7, 8). Figures 5 and 6 depict a rotifer; Ehrenberg (1838, *Infusionsth.*: 404) included a reference to them in the synonymy of *Lacinularis socialis*. Thus the name given by Linnaeus in 1758 was applied both to a rotifer and the ciliate.

6. Linnaeus later (1767, *Syst. Nat.* (ed. 12) 1 : 1321) published an emendation of the specific name as *stentorea*, and under *H. stentorea* referred to an extended list of references: the accounts by Trembley and Baker and the latter's figure which I have mentioned; Rösel's figs. 7 and 8 (not 5 and 6); references by Ledermüller and by Pallas. Linnaeus (1767) referred to Rosel's figures 5 and 6 under *Hydra socialis*. He had evidently restricted his concept of *H. stentorea* so far as the original reference of 1758 was concerned, to Rösel's figures that actually represented the ciliate. Pallas (1766) used the name

Brachionus stentoreus, with varieties *alba*, *viridis*, and *caeruleus*; he removed the stentorid of Linnaeus to that genus, along with some rotifers and vorticellids.

7. O. F. Müller, recognising that the ciliate dealt with by Linnaeus could not be put in the genera *Hydra* or *Brachionus*, included it in *Vorticella*. Under *Vorticella stentorea* (1773, *Verm. terrest. fluviat.* : 111), he quoted the description of *Hydra stentorea* by Linnaeus. In the genus he also treated of several species that were in Linnaeus's genus *Vorticella*, together with a heterogeneous assemblage of ciliates and some rotifers. In this work Müller dealt with two other stentorid ciliates, which he named *Vorticella nigra* (*op. cit.* : 96) and *V. polymorpha* (*op. cit.* : 98). Later (1786, *Animalc. Inf.* : 262) he described a third species, *Vorticella multiformis*. A peritrich dealt with in the latter work is *Vorticella versatilis* (*op. cit.* : 281, pl. 39, figs. 14—17). In that peritrich, individuals occur abundantly in the periphery of large, gelatinous masses.

8. *Vorticella stentorea* was included in the genus *Linza* Schrank, 1802, by Schrank (1802, 1803). This genus contained the colonial peritrich, then widely known as *Ulva pruniformis*, which was Müller's *Vorticella versatilis*, and of which the currently used name is *Ophrydium versatile*; Müller's *Vorticella flosculosa* (1786, *Animalc. Inf.* : 304, pl. 43, figs. 16—20), which is the colonial rotifer known later as *Lacinularia socialis*: and Müller's *Vorticella socialis* (*op. cit.* : 304, pl. 43, figs. 13—15), which is in part also *Lacinularia socialis*. Schrank's genus *Linza* was a complex of a peritrich, a rotifer, and a stentorid ciliate. Neave (*Nomenclator Zoologicus*) lists *Linza* as in Rotifera.

9. The stentorids that had been named by Müller (1786) *Vorticella nigra* and *V. polymorpha* were placed by Schrank (1803) in the genus *Ecclissa*, as *E. nigra* and *E. viridis*, along with various species of Müller's *Vorticella*.

10. Bütschli (1899 in Bronn, *Klass. Ord. Thierreiches*, 1 : 1728) listed *Ecclissa* and *Linza* spp. Schrank in the synonymy of *Stentor*. Stein (1876), *Organ. In. fusionsth.* : 221) had written of the injustice of the neglect suffered by Schrank's names, but recognised the futility of attempting to revive one or the other of them for the stentorid ciliates. The history of those names is complicated and obscure, and they have never come into use. To complicate the matter still further I find that Lamouroux *et. al.* (1824, *Hist. nat. Zooph.*, 2 : 291) refer to the genus *Ecclissa* established by Ocken [*sic*] for vorticellids, and to *Linze*, a genus established by Guettard in sponges. Also there is *Ecclissa* Modeer (*A.*), 1790, emended in Agassiz (1842—46, *Nomenclator Zoologicus*) to *Ecclissa* Modeer, in Vorticellina.

11. These names are associated with the older history of the nomenclature of stentorid ciliates, and so have been discussed, but they

are not necessarily important in relation to the present problem. The type of *Linza* Schrank may be considered to be *Vorticella flosculosa* Müller, which is the rotifer *Lacinularia socialis*; and that of *Ecclissa* Schrank may be considered to be one of the peritrichs he included in it. Thus these problems are removed to other groups than that which now concerns us, though it would be well if the Commission used its Plenary Powers to suppress the names *Linza* Schrank and *Ecclissa* Schrank, as well as *Ecclissa* Modeer.

12. Oken (1815, *Lehrb. Naturgesch.*, Thiel 3, Abt. 1 : 45) applied the name *Stentor* to the same group of organisms as that in Schrank's genus *Linza*, though he did not refer to that fact. In the genus he gave three species: *St. solitarius* Oken, 1815 (*Vorticella stentorea* renamed); *St. socialis*, which was the rotifer *Lacinularia socialis*; and *St. pruniformis* otherwise known as *Ulva pruniformis* or *Linza pruniformis* (*Ophrydium versatile*). Oken (1815) also listed the genus *Ecclissa*, with *E. nigra* (*Vorticella nigra*) and *E. viridis* (*Vorticella viridis*) as the species. Oken had distributed the species within the group we now know as *Stentor* into two genera, *Ecclissa* in his listing containing only members of that group, *Stentor* containing a heterogeneous assemblage of organisms, one of which belonged to the group in which we are presently interested.

13. The name *Stentor* Oken, 1815, was preoccupied. Geoffroy Saint-Hilaire (1812, *Ann. Mus. Nat. Hist.* 19 : 107) had proposed the name *Stentor* for a genus of South American monkeys, listing six species. For that group of howling monkeys, however, two generic names had already been supplied. *Stentor* Geoffroy Saint-Hilaire, 1812, is antedated by *Alouatta* Lacépède, 1799, and by *Mycetes* Illiger, 1811 (Palmer, 1904, *Index generum mammalium, North Am. Fauna*, No. 23). Consequently, *Stentor* has never been in use among mammalogists, and is often neglected even as a synonym.

14. A comparable case is that of *Necator* Stiles, 1903, which was dealt with by the International Commission on Zoological Nomenclature at the 7th Meeting in Paris, July, 1948 (*Off. Record Proceedings* : 301—302)². It was found by Mr. Hemming that the above generic name is a junior homonym of *Necator* Sclater and Saunders, 1896, an emendation of *Nicator*, Finsch and Hartlaub, 1870, a genus in the Class Aves. *Necator* has not been in use by ornithologists, *Nicator* having always been the name by which the genus is known. At this meeting, the Commission used its Plenary Powers to suppress *Necator* Sclater and Saunders, 1896, and to validate the generic name *Necator* Stiles, 1903.

² See *Opinion* 201 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 3 : 267—274).

15. Another aspect of this problem is its relation to a matter that came to the attention of the International Commission on Zoological Nomenclature at its 13th Meeting in Paris, July 1948 (*Off. Record Proceedings* : 365—366). It concerned a proposal that had been made by Stiles for addition to the *Official List of Generic Names* of three genera of Carnivora first published by Oken (1815—16) in his *Lehrbuch der Naturgeschichte*, and an application by Osgood for a ruling on the question of availability of names first published in Oken's *Lehrbuch*. The Commission agreed to take into consideration as soon as possible the question of a ruling on the availability of Oken's names, and to defer a decision on the application by Stiles for addition of three of Oken's genera of Carnivora to the *Official List* until there had been a decision on the availability of those names.

16. Since *Stentor* Oken, 1915, is a name also published in the *Lehrbuch* in question, its placement in the *Official List of Generic Names* is subject to the same consideration.

17. Several other names have been proposed for the ciliates of this generic group. Bory (1824, Lamouroux, Bory de Saint-Vincent, et Eud. Deslongchamps, *Enc. méth., Hist. nat. Zooph.*, 2 : 533, 697) gave the name *Stentorina* to a genus which included the stentorids which Müller had grouped in *Vorticella* : *V. polymorpha*, *V. nigra*, and *V. multiformis*. This was the first bringing together of these species into a single independent genus. Bory's concept of their relationship was obviously far superior to that of Oken. Bory did, however, carry on an error that others had made before him, in giving the names *Stentorina roeselii* and *S. biloba* to a rotifer, the one later known as *Lacinularia socialis*.

18. The generic name *Tubaria* was proposed by Thienemann (1828, *Lehrbuch Zool.* : 12), since the name *Stentor* had been used for a genus of apes by Geoffroy. He gave the species name *T. viridis*, which, according to Ehrenberg (1838) is *Stentor polymorphus*. I have not been able to refer to Thienemann's book, but the name has no significance for the present nomenclatural problem.

19. Reichenbach (1828, *Zoologie in Allg. Taschenb. Naturw.*, Th. 5, 1 : 95) substituted the name *Stentorella* for *Stentor* Ok. non Geoffr. He did not refer to any species. This name was neglected for more than a century, not even being included in nomenclatorial indices (Agassiz, 1842—46 ; Sherborn, 1902). Recently Bhatia (1936, *Fauna Br. Ind., Prot : Ciliophora* : 234) noted pre-occupation of *Stentor* for a genus of Mammalia and adopted instead *Stentorella* Reichenbach. Bhatia neglected the prior claim of *Stentorina*, if substitution is to be made, and his proposal to use *Stentorella* is invalid.

20. Another problem exists in regard to identification of the type species of *Stentor* Oken, 1815. When proposed, it contained only the

one heterotrich *St. solitarius* Oken, 1815, along with the peritrich and rotifer. *St. solitarius* is a name supplied as equivalent to *Vorticella stentorea* Müller, 1773, so stated by Oken. It is also equivalent to *Hydra stentoria* Linnaeus, 1758. The trail of references occurring in the different authors' works goes back to Linnaeus. But the same or equivalent names were not necessarily applied to the same organisms, and species identification of the ciliates as named and described by these authors is not possible.

21. Ehrenberg (1832, *Abh. Akad. Wiss. Berlin* 1831 : 99) substituted the name *Stentor muelleri* E. for *Vorticella stentorea* Müller. A recognisable figure of *Stentor muelleri* was published by Ehrenberg (1837, *op. cit.* 1835 : pl. 1, fig. 16). A full, illustrated account of the species was provided by Ehrenberg (1838, *Infusionsth.* : 262). In that work Ehrenberg listed *Stentorina muelleri* Bory de Saint-Vincent, 1824 in the synonymy of *Stentor muelleri*. I have been unable to find that Bory used that name, though he did give *Stentorina stentorea* for Müller's *Vorticella stentorea*, a fact that Ehrenberg did not refer to in the synonymy in discussion.

22. Ehrenberg (1832, *op. cit.* : 99) stated that *Stentor muelleri* was *Vorticella stentorea* Müller, and in 1838 he listed *St. solitarius* Oken in the synonymy of *St. muelleri*. *St. solitarius* is the type, being the only ciliate in Oken's genus *Stentor* at the time it was proposed. Prior to Ehrenberg's accounts of 1832, 1837, and especially 1838 it is impossible to tell what species of colourless stentorids are referred to by the names that were given. The description of *Stentor muelleri* by Ehrenberg can, as Mr. Hemming suggested, be designated by the Commission as that to be accepted for the nominal type species of *Stentor* Oken, 1815. Since 1830 the specific names of this nominal species, *solitarium* Oken or the older *stentoria* or *stentorea*, have not been in use. It would be undesirable to revive them. The Commission should consider suppressing those specific names and designating the type species of *Stentor* as *St. muelleri* Ehrenberg, [1832] (*Abh, König Ak. Wiss. Berlin* 1831 : 99).

23. There is not complete agreement about the taxonomic status of *Stentor muelleri*. Stein (1867, *Org. Infusionsth. Abt.* 2 : 223, 229) maintained that *St. muelleri* is not more than a colourless form of *St. polymorphus* (i.e., without zoochlorellæ), and placed (: 247) *Hydra stentorea* L., 1758 ; *Vorticella stentorea* Müller, 1773 ; *Stentor solitarius* Oken, 1815 ; and *Stentorina stentorea* Bory, 1824 in the synonymy of *Stentor roëselii* Ehrbg. This species like *St. muelleri* is colourless and may occur in a gelatinous lorica. *Stentor muelleri* is recognised, however, in recent literature in protozoology.

24. In his list of proposed *Nomina Conservanda* Apstein (1915, *Sitzungsber. Gesell. Naturf. Freunde Berlin* 1915 : 123) included *Stentor* Oken, 1815, and gave as the representative species ("eine art gennant, für welche die Gattung erhalten bleiben soll") *polymorphus*

Müll., 1773. However, under Article 30, that species is excluded as the type species of *Stentor*, since it was not included under the generic name at the time of publication.

25. The International Commission on Zoological Nomenclature is faced with a problem in considering the placing of the name of this important ciliate genus on the *Official List of Generic Names*. If it is decided that new names in Oken's *Lehrbuch* are available, *Stentor* Oken, 1815, may be preserved by suppression of *Stentor* Geoffroy Saint-Hilaire, 1812. If it is decided that the new names in Oken's *Lehrbuch* are not available, the problem of selecting a name for these ciliates must be considered further. Perhaps *Stentorina* Bory de Saint-Vincent, 1824, could be adopted, with the type species *Vorticella polymorpha* Müller, 1773. A change of so well-known and long used a generic name as *Stentor* should be avoided if possible.

References

- Apstein, C., 1915. Nomina conservanda. *Sitzungsbericht der Gesellschaft naturforschender Freunde zu Berlin*, 1915 : 119—202
- Baker, Henry, 1753. *Employment for the microscope*. (London)
- Bhatia, B. L., 1936. Protozoa : Ciliophora. *The fauna of British India, including Ceylon and Burma*. (London, Taylor & Francis)
- Bory de Saint-Vincent, J. B., 1824. Microscopiques in Lamouroux, Bory de Saint-Vincent, et Eud. Deslongchamps : Histoire naturelle des zoophytes, ou animaux rayonnés, pp. 515—543. *Encyclopédie Méthodique*. (Paris)
- Bory de Saint-Vincent, J. B., 1824. Stentorine ; *Stentorina* in Lamouroux, Bory de Saint-Vincent, et Eud. Deslongchamps : Histoire naturelle des zoophytes, ou animaux rayonnés, pp. 697—700. *Encyclopédie Méthodique*. (Paris)
- Ehrenberg, C. G., 1832. Über die Entwicklung und Lebensdauer der Infusionsthierie ; nebst ferneren Beiträgen zu einer Vergleichung ihrer organischen Systeme. *Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin*, 1831 : 1—154
- Ehrenberg, C. G., 1837. Zusätze zur Erkenntnis grosser organischer Ausbildung in den kleinsten thierischen Organismen. *Abhandlungen der Königlichen Akademie der Wissenschaften zu Berlin*, 1835 : 151—180
- Ehrenberg, C. G., 1838. *Die Infusionsthierchen als vollkommene Organismen*. (Leipzig, Leopold Voss.)

- Geoffroy Saint-Hilaire, I., 1812. Tableau des Quadrumanes, ou des Animaux composant le premier Ordre de la Classe des Mammifères. *Annales du Muséum d'Histoire Naturelle*, 19 : 85—122.
- Ledermuller, M. F., 1764. *Amusement microscopique tant pour l'esprit, que pour les yeux.* (Nuremberg.)
- Linnaeus, C., 1758. *Systema Naturae, edition decima*, Tomus I. (Holmiae)
- Linné, Caroli, A., 1767. *Systema Naturae*, ed. duodecima. (Holmiae)
- Müller, O. F., 1773. *Vermium terrestrium et fluviatiliium.* (Hauniae et Lipsiae)
- Müller, O. F., 1786. *Animalcula infusoria fluviatilia et marina.* (Hauniae)
- Oken, L., 1815. *Lehrbuch der Naturgeschichte.* Dritter Thiel. Zoologique. Erste Abth. Fleischlose Thiere. (Jena, Schmid und Com.)
- Reichenbach, L., 1828. *Zoologie oder Naturgeschichte des Tierreichs. Erstes Bd. in Allgemeine Taschenbibliothek der Naturwissenschaften, fünfter Th.* (Dresden, Hilschersche Buchh.)
- Rösel von Rosenhof, A. J., 1755. *Der monatlich-herausgegebenen Insecten-Belustigung.* 3 : 585—596. Vier fünf und Sechs und Neunzigste Supplements-tabelle. Der gesellige, keulenförmige Affterpolyp. Tab. XCIV, XCV und XCVI
- Schrank, F. von P. von., 1802. *Briefe naturhistorische, physikalische und ökonomische Inhalts an Nau.* (Erlangen)
- Schrank, F. von P. von., 1803. *Fauna boica.* 3 pt. 2. (Nürnberg)
- Sherborn, C. D., 1931. *Index Animalium.* pt. 25. (London, British Museum)
- Stein, F., 1867. *Der Organismus der Infusionsthier.* II. Abtheilung. (Leipzig, Engelmann)
- Trembley, Abraham, 1745. Observations upon several newly discovered species of freshwater Polypi. *Philosophical Transactions.* London. 43 (Numb. 474) : 169—183

2. Report submitted by Mr. Francis Hemming, Secretary to the Commission : Upon the receipt of the paper relating to the generic name *Stentor* Oken, 1815, reproduced in the immediately preceding paragraph Mr. Hemming prepared the Report which, as has been explained, it had been agreed between Professor Kirby and himself should be submitted to the Commission simultaneously with Professor Kirby's paper. Mr. Hemming's Report, the terms of which were agreed with Professor Kirby in November 1950, was as follows :—

**Report on the Status of the Generic Name "Stentor" Oken,
1815 (Class Ciliophora, Sub-Class Ciliata)**

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

In correspondence relating to the name *Entamoeba Casagrandi* and *Barbagallo*, 1895, Professor Harold Kirby (University of California, Berkeley, Cal., U.S.A.) drew my attention to the fact that the name universally applied to the well-known genus of Ciliates known as *Stentor* was invalid and suggested that the problems involved should be studied by the International Commission on Zoological Nomenclature as a preliminary to the name *Stentor* Oken, 1815, being placed on the *Official List of Generic Names in Zoology*. I at once asked Professor Kirby to prepare a statement of the case for consideration by the Commission, and this he kindly undertook to do at the first opportunity. The investigation has proved unexpectedly complicated, for it was found not only that the generic name *Stentor* Oken is invalid, being a junior homonym of the name *Stentor* Geoffroy Saint-Hilaire, 1812 (as was already known), but also that no effective type selection had apparently ever been made for the genus *Stentor* Oken and further that the identity of the only originally included species (*Stentor solitarius* Oken, 1815) that could be regarded as being a member of the genus as at present universally understood was open to doubt. All of these questions are dealt with fully in the paper prepared by Professor Kirby, which is now laid before the Commission for consideration.

(2) In submitting this paper, Professor Kirby deliberately stopped short of formulating concrete proposals for the consideration of the Commission, asking me, as Secretary to the Commission, to undertake this task. This I consented to do and the present Report has accordingly been prepared for the consideration of the Commission. When the present Report was in draft, I submitted it to Professor Kirby, who notified me that he was in agreement with the conclusions and recommendations now submitted.

(3) In approaching the present task, I started with the premise that in the case of a name such as *Stentor* Oken every responsible zoologist would recognise how grave would be the confusion if it were found necessary to reject that name for purely technical nomenclatorial reasons and would strongly support the use by the Commission of its Plenary Powers to prevent so disastrous a result. In the following paragraphs I deal briefly with each of the three problems which, as Professor Kirby explained, arise in the present case.

(4) **On the measures necessary to provide availability for the generic name "Stentor" Oken, 1815 :** The first step necessary in any plan to preserve the current use of the generic name *Stentor* would be the suppression, under the Plenary Powers, of the older generic name *Stentor* Geoffroy Saint-Hilaire, 1812 ; no possible objection could be raised to this course, since, as Professor Kirby pointed out, the name *Stentor* Geoffroy Saint-Hilaire is a name that was applied to a genus of monkeys which has at least two older available names. Once Geoffroy Saint-Hilaire's *Stentor* had been removed from the field in this way, the name *Stentor* Oken, 1815, would cease to be invalid, as the junior homonym of another generic name. The next question to be considered is whether Oken, in his *Lehrbuch der Naturgeschichte*,³ consistently applied the principles of binominal nomenclature (as required by Proviso (b) to Article 25) and therefore whether the name *Stentor* Oken is an available name. On this general subject I have submitted a Report (Z.N.(S.) 153) to the Commission in accordance with a request addressed to me by it at its Paris Session, in which I reach the conclusion that Oken did not in the *Lehrbuch*, satisfy the provision cited above and therefore that new names in the *Lehrbuch* did not acquire any rights under the Law of Priority. At the same time I have drawn attention to the fact that, if the Commission accept the conclusion reached in my Report, the names in the *Lehrbuch* will fall to be dealt with under the special procedure laid down by the Thirteenth International Congress of Zoology for the purpose of validating with the utmost despatch generic names of importance that might in such cases be found to be invalid (1950, *Bull. zool. Nomencl.* 4 : 63—66). Clearly the name *Stentor* Oken, 1815, would come under this heading and I accordingly recommend that, simultaneously with the adoption of my Report on the status of Oken's *Lehrbuch*, the name *Stentor* Oken should be validated under the Plenary Powers.

(5) **Certain old generic names associated with the "Stentor" problem :** Professor Kirby pointed out that the name *Linza* Schrank, 1802, a name which has never been used, is a potential danger to the name *Stentor* Oken, since no type species has ever been selected for Schrank's genus and some of the species originally included in it are stentorids. I fully support, therefore, the conclusion reached by Professor Kirby that this name should now be suppressed under the

³ See Footnote 1.

Plenary Powers and thus rendered incapable of causing confusion in the literature. Similarly, I support Professor Kirby's conclusion that the long-forgotten name *Eclissa* Modcer, 1790, and its variant *Ecclissa* Schrank, 1802, should be suppressed under the Plenary Powers.

(6) **On the type species of the genus "Stentor" Oken, 1815:** As already noted in the present Report, no nominal species appears ever to have been validly selected to be the type species of the genus *Stentor* Oken, 1815; the selection of a type species is naturally an indispensable preliminary to the definition of the genus. Professor Kirby pointed out that *Stentor solitarius* Oken, 1815, is the only originally included species, the selection of which as the type species could secure the continued use of the name *Stentor* in its accustomed sense, but that there are substantial reasons which would render the selection of this species as the type species open to strong objection. In the first place, it must be noted that the name *Stentor solitarius* Oken was not based upon a description by Oken of a new species, but was published as a *nom. nov. pro* the species referred to by Müller (O.F.) (1773) as *Vorticella stentorea*. Next, we have to note that Müller never published this name as a new name; what he did was to place in the genus *Vorticella* the species which Linnaeus in 1758 had named *Hydra stentoria* (a name which in 1767 Linnaeus himself emended to *stentorea*). Thus, the identity of Oken's *Stentor solitarius* turns entirely upon the identity of the species *Hydra stentoria* Linnaeus. Professor Kirby examined the taxonomic questions involved and reached the conclusion that, prior to Ehrenberg's work, and, in particular, his *Die Infusionsthierchen* of 1838, it is impossible to identify with certainty to what species should be applied to names published for colourless stentorids. It was to overcome these difficulties that (as explained in Professor Kirby's paper) I suggested (*in litt.*) that the best course would be for the Commission to use its Plenary Powers to secure that Ehrenberg's figure for *Stentor muelleri* Ehrenberg, [1832], should be taken to define the nominal species, to be designated as the type species of *Stentor* Oken. The advantage of this course lies in the fact that Ehrenberg's name *Stentor muelleri* is a substitute name for Müller's *Vorticella stentoria*, which (as already explained) is objectively identical with Oken's *Stentor solitarius*. This suggestion commended itself to Professor Kirby and is included in the proposal submitted at the close of the present Report. It is naturally an essential part of that plan that the specific name *muelleri* Ehrenberg should be preserved for the species to which it is always applied. Accordingly it is proposed not only that the specific name *stentoria* Linnaeus, 1758 (and its emendation *stentorea* Linnaeus, 1767), both being specific names for species which cannot be certainly identified, should be suppressed under the Plenary Powers, but also that the specific name *solitarius* Oken should be suppressed for similar reasons. The suppression of *nomina dubia*, when their clarification might give rise to confusion, is clearly the best means of promoting stability in nomenclature and of avoiding confusion. If these names are disposed of in this way, it will be

necessary to designate some other nominal species to be the type species of the genus *Stentor* Oken. Clearly, the most appropriate choice would be the nominal species *Stentor muelleri* Ehrenberg, [1832], as defined by the description and figures published by that author in 1838.

(7) The settlement of the *Stentor* problem on the foregoing lines would provide valid force for the current use of that name, without causing the slightest inconvenience or difficulty in any other field. I accordingly recommend the foregoing solution to the favourable consideration of the Commission. The detailed action recommended is that the International Commission on Zoological Nomenclature should :—

(1) use its Plenary Powers :—

(a) to suppress for the purposes of the Law of Priority but not of the Law of Homonymy the under-mentioned generic names :—

- (i) *Eclissa* Modeer, 1790 ;
- (ii) *Ecclissa* Schrank, 1802 ;
- (iii) *Linza* Schrank, 1802 ;

(b) to suppress for the purposes both of the Law of Priority and of the Law of Homonymy the generic name *Stentor* Geoffroy Saint-Hilaire, 1812 ;

(c) to validate the generic name *Stentor* Oken, 1815 (in the event of Oken's *Lehrbuch der Naturgeschichte* being declared unavailable for nomenclatorial purposes)⁴;

(d) to suppress the under-mentioned specific names for the purposes of the Law of Priority :—

- (i) *stentoria* Linnaeus, 1758, as published in the combination *Hydra stentoria* ;
- (ii) *stentorea* (emend. of *stentoria*) Linnaeus, 1767, as published in the combination *Hydra stentorea* ;
- (iii) *solitarius* Oken, 1815, as published in the combination *Stentor solitarius* ;

(e) to direct that the name *Stentor muelleri* Ehrenberg, [1832], is to be interpreted by reference to the description and figures published therefore by Ehrenberg in 1838 (*Die Infusionsth.* : 262) ;

(f) to designate *Stentor muelleri* Ehrenberg, [1832], as defined in (e) above, to be the type species of *Stentor* Oken, 1815 ;

⁴ See Footnote 1.

- (2) to place the name *Stentor* Oken, 1815 (type species, by designation under the Plenary Powers under (1)(f) above : *Stentor muelleri* Ehrenberg, [1832], as defined under the Plenary Powers under (e) above) on the *Official List of Generic Names in Zoology* ;
- (3) to place on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
- (a) the three generic names proposed under (1)(a) above to be suppressed under the Plenary Powers ;
 - (b) the name *Stentor* Geoffroy Saint-Hilaire, 1812, proposed under (1)(b) above to be suppressed under the Plenary Powers ;
 - (c) the under-mentioned generic names which are junior objective synonyms of *Stentor* Oken, 1815 :
 - (i) *Tubaria* Thienemann, 1828 ;
 - (ii) *Stentorella* Reichenbach, 1828 ;
- (4) to place the specific name *muelleri* Ehrenberg, [1832], as published in the combination *Stentor muelleri*, as defined under the Plenary Powers under (1)(e) above, on the *Official List of Specific Names in Zoology* ;
- (5) to place on the *Official Index of Rejected and Invalid Specific Names in Zoology* the three specific names specified in (1)(d) above, as there proposed to be suppressed under the Plenary Powers.

II.—THE SUBSEQUENT HISTORY OF THE CASE

3. Registration of the present application : At the time when in 1945 Professor Kirby first brought forward the question of the name *Stentor* Oken, the problems involved were allotted the Registered Number Z.N.(S.) 261.

4. Publication of the present application : In view of the fact that the present application was concerned with a generic name published in Oken's *Lehrbuch der Naturgeschichte* it was considered that it would be to the convenience of the Commission if the submission of the present case to it were to be deferred until it was possible also to submit proposals for determining the availability of names published in Oken's *Lehrbuch*. Hence it was that the documents relating to the present case were not published in the *Bulletin of Zoological Nomenclature* until 11th May 1954 (Kirby, 1954, *Bull. zool. Nomencl.* **9** : 208—214 ; Hemming, 1954, *ibid.* **9** : 214—218).

5. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56) Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 11th May 1954 (a) in Part 7 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Professor Kirby's and Mr. Hemming's papers were published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to a number of general zoological serial publications and to certain specialist serials in Europe and America.

6. No objection received during the Prescribed Waiting Period : No objection to the action proposed was received in the Office of the Commission during the Prescribed Waiting Period of six months following the publication of this application in the *Bulletin of Zoological Nomenclature*. Shortly after the close of the foregoing period and subsequent also to the preparation of the Voting Paper to be submitted to the Commission in this case (paragraph 8 below), an objection was received from one American zoologist. The communication so received is reproduced in the immediately following paragraph.

7. Objection received from Professor E. Raymond Hall (University of Kansas, Lawrence, Kansas, U.S.A.) subsequent to the close of the

Prescribed Waiting Period : On 23rd November 1954 a letter, dated 18th November 1954, was received in the Office of the Commission from Professor E. Raymond Hall (*University of Kansas, Lawrence, Kansas, U.S.A.*) intimating a general objection to the validation of any of the names introduced for genera of mammals by Oken in his *Lehrbuch* and in addition a particular objection to the validation of the name *Stentor* in ciliates. The portion of Professor Hall's letter relating to the first of these questions has been reproduced in *Opinion* 417 dealing with the general question of the status to be accorded to generic names as published in Oken's *Lehrbuch*. The following is the portion of Professor Hall's letter relating to the name *Stentor* Oken :—

Concerning the name *Stentor* of Oken as applied to non-vertebrate animals [Commission Reference Z.N.(S.) 261], certain considerations additional to those that pertain to Oken's names for mammals need to be taken into account but, even so, when all angles are considered, including convenience to teachers of zoology, of which I am one, my view is that *Stentor* Oken should not be made available and that the next available name should be used.

III.—THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

8. Issue of Voting Paper V.P.(54)92 : On 26th November 1954, a Voting Paper (V.P.(54)92) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic name *Stentor* Oken, 1815 (Class Ciliophora) as set out in Points (1) to (5) in paragraph (7) on page 217 and continued on page 218 of volume 9 of the *Bulletin of Zoological Nomenclature*" [i.e. in the Points numbered as above in paragraph (7) of the Report by Mr. Hemming reproduced in paragraph 2 of the present *Opinion*].

9. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 26th February 1955.

10. Particulars of the Voting on Voting Paper V.P.(54)92 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(54)92 was as follows :—

(a) *Affirmative Votes had been given by the following twenty (20) Commissioners (arranged in the order in which Votes were received) :*

Holthuis ; Hering ; Lemche ; Stoll ; Bradley (J.C.) ;
Vokes ; Esaki ; Bodenheimer ; Dymond ; Bonnet ;
Jaczewski ; Hankó ; Boschma ; Miller ; Key ; Riley ;
do Amaral ; Hemming ; Kühnelt ; Sylvester-Bradley ;

(b) *Negative Votes, one (1) :*

Cabrera ;

(c) *On Leave of Absence, two (2) :*

Mertens ; Prantl ;

(d) *Voting Papers not returned :*

None.

11. Declaration of Result of Vote : On 27th February 1955, Mr. Hemming, Secretary to the International Commission,

acting as Returning Officer for the Vote taken on Voting Paper V.P.(54)92, signed a Certificate that the Votes cast were as set out in paragraph 10 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

12. Clarification of two drafting points involved in the present case : On 26th October 1955 Mr. Hemming, as Secretary, placed the following Minute on Commission File Z.N.(S.) 261, clarifying the position as regards two drafting points on which decisions were required as a preliminary to the preparation of the Ruling to be included in the *Opinion* embodying the decision taken by the Commission in the present case :—

Two drafting points involved in the preparation of the Ruling to be included in the “Opinion” embodying the decision of the Commission in relation to the name “Stentor” Oken, 1815 (Voting Paper V.P.(54)92)

MINUTE by FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

Two drafting points call for decision in connection with the preparation of the Ruling to be included in the *Opinion* embodying the decision taken by the International Commission in its vote on Voting Paper V.P.(54)92 in relation to the generic name *Stentor* Oken, 1815. The points concerned are set out below.

2. First, the application submitted in this case was prepared at a time when the status of names published in Oken's *Lehrbuch der Naturgeschichte* was still a matter of doubt. Accordingly, in order to make sure that the solution sought in this case should not be frustrated by the fact that the specific name *solitarius* Oken, 1815, as published in the combination *Stentor solitarius*, possessed the status of availability, if under a general decision relating to the status of names published in the foregoing work that name were later found to be an available name, a proposal for the suppression of this name under the Plenary Powers was included in the application submitted (Recommendation (1)(d)(iii) in paragraph (7) of my Report). By its vote on

Voting Paper V.P.(54)91, the Voting Paper immediately preceding that on which the Commission voted in the present case, the Commission has now ruled that names published in Oken's *Lehrbuch* did not acquire thereby the status of availability under the *Règles*. Accordingly, the name *solitarius* Oken, 1815, as published in the combination *Stentor solitarius*, is now seen to be invalid without the intervention of the Commission's Plenary Powers.

3. The second point which calls for consideration is in relation to the determination of the species to be accepted as the type species of the genus *Stentor* Oken, 1815. In this case, it will be recalled, the solution recommended by Professor Kirby was that the Commission should use its Plenary Powers to designate as the type species of this genus a nominal species (*Stentor muelleri* Ehrenberg, [1832]) which, having been established long after the introduction of the nominal genus *Stentor* Oken, 1815, could not possibly be the type species of that genus without the use of the Commission's Plenary Powers. A proposal that the Plenary Powers should be used for the purpose of designating the above species to be the type species of *Stentor* Oken was accordingly included in the proposals submitted (Recommendation (1)(f) in paragraph (7) of my Report). At that time it was believed that no valid type selection had ever been made for the genus *Stentor* Oken and it was accordingly judged unnecessary to include in the recommendation submitted a proposal that any type selection made prior to the Ruling asked for should be set on one side. The use of the Plenary Powers for the purpose of fixing the type species of this genus in the sense recommended by Professor Kirby has now been approved by the Commission in its vote on Voting Paper V.P.(54)92. In a letter dated 7th December 1954 received during the Prescribed Voting Period for the above Voting Paper Commissioner Harold E. Vokes pointed out that "in his statement of the case (*Bull. zool. Nomencl.* 9(7) : 208—214) Kirby clearly, though certainly inadvertently, designated *Stentor solitarius* as the type species of the genus *Stentor* (see p. 212, line 15)".⁵ Reference to the passage cited by Professor Vokes fully supports his contention that Professor Kirby did inadvertently select the above species to be the type species of this genus. That this is so does not, however, affect in any way the decision of the Commission to designate the nominal species *Stentor muelleri* Ehrenberg, [1832], to be the type species of the genus *Stentor* Oken, for, as that decision has been under the Plenary Powers, it automatically serves to set aside any previous type selection which may have been made. I agree, however, with Commissioner Vokes that for the sake of the record it is desirable that the formal position in this matter should be made clear in the Ruling to be given in the *Opinion* embodying the Commission's decision in the present case.

⁵ The type selection sentence here referred to appears in line 3 of paragraph 22 of the paper by Professor Kirby reproduced in the first paragraph of the present *Opinion*.

3. For the reasons set out above, I now, as Secretary to the Commission, hereby direct that in the Ruling to be prepared in this case :—

- (a) the specific name *solitarius* Oken, 1815, as published in the combination *Stentor solitarius*, be treated as a name which is invalid by reason of having been published in a work which has been rejected for nomenclatorial purposes and not as a name suppressed under the Plenary Powers ;
- (b) words be inserted in relation to the designation of *Stentor muelleri* Ehrenberg, [1832], under the Plenary Powers to be the type species of *Stentor* Oken, 1815, to make it clear that this use of the Plenary Powers automatically carries with it a decision under the same Powers to set aside any type selection for the above genus made prior to the Ruling now to be given.

13. Preparation of the Ruling given in the present “ Opinion ” : On 3rd March 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(54)92, subject to the clarification of two drafting points in the manner specified in the Minute executed by the Secretary earlier on the same day. The text of the Minute here referred to has been given in paragraph 12 of the present *Opinion*.

14. Original References : The following are the original references for the names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Ecclissa Schrank, 1803, *Faun. boic.* 3(2) : 21, 101

Eclissa Modeer, 1790, *K. Svensk. Vetensk-Akad. Handl.*, Stockholm 11(4) : 242

Linza Schrank, 1802, *Briefe naturhist. physikalisch. ökonom. Inhaltes an Nau* : 91

muelleri, *Stentor*, Ehrenberg, [1832], *Abk. k. Akad. Wiss. Berlin* 1831 : 99

solitarius, *Stentor*, Oken, 1815, *Lehrbuch Naturgesch.* 3(1) : 45

Stentor Geoffroy Saint-Hilaire (E.), 1812, *Ann. Mus. Hist. nat.*, Paris 19(110) : 107

Stentor Oken, 1815, *Lehrbuch Naturgesch.* 3(1) : 45

stentorea, *Hydra*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1321

Stentorella Reichenbach, 1828, *Allg. Taschenb. Naturwiss.* 5, Zool. 1 : 95

stentoria, *Hydra*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 817

Tubaria Thienemann, 1828, *Lehrbuch Zool.* : 12

15. Family-Group-Name Position : The family-group-name position was not considered at the time of the submission of the application dealt with in the present *Opinion*, for that application was prepared prior to the establishment of the *Official List of Family-Group Names in Zoology* by the Fourteenth International Congress of Zoology, Copenhagen, 1953. This aspect of the present case is at present being examined on Commission File Z.N.(S.) 1113.

16. At the time of the submission of the present application the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

17. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

18. The present *Opinion* shall be known as *Opinion* Four Hundred and Eighteen (418) of the International Commission on Zoological Nomenclature.

DONE in London, this Third day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 3. Pp. 69—128, 1 pl.

OPINION 419

Validation under the Plenary Powers of the names published by William Martin in 1809 in the work entitled *Petrificata Derbiensia* for eight species of the Class Brachiopoda and for two species of the Class Anthozoa and matters incidental thereto

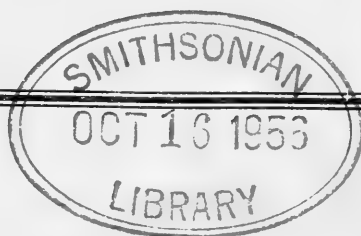
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 419

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(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

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(*Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology*)

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(1st January 1947)

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(12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*)
(29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

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(6th November 1954)

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Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria," Genova, Italy*)
(16th December 1954)

OPINION 419

VALIDATION UNDER THE PLENARY POWERS OF THE NAMES PUBLISHED BY WILLIAM MARTIN IN 1809 IN THE WORK ENTITLED "PETRIFICATA DERBIENSIA" FOR EIGHT SPECIES OF THE CLASS BRACHIOPODA AND FOR TWO SPECIES OF THE CLASS ANTHOZOA AND MATTERS INCIDENTAL THERETO

RULING:—(1) Under the Plenary Powers the under-mentioned specific names published by Martin (W.) in 1809 in the work entitled *Petrificata Derbiensia* are hereby validated as from the above date and work :—

- (a) *resupinatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (resupinatus)* (Class Brachiopoda)¹ ;
- (b) *semireticulatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (semireticulatus)* (Class Brachiopoda) ;
- (c) *crumena* Martin, 1809, as published in the combination *Conchyliolithus Anomites (crumena)* (Class Brachiopoda) ;
- (d) *trigonalis* Martin, 1809, as published in the combination *Conchyliolithus Anomites (trigonalis)* (Class Brachiopoda) ;

¹ Dr. Helen Muir-Wood (the applicant for this portion of the present case) has notified the Office of the International Commission that, in her opinion, the term Brachiopoda should be reserved for use as the name for a Phylum. On this view, the Phylum Brachiopoda consists of two Classes, of which one is the Class Articulata, to which all the species of Brachiopoda discussed in the present *Opinion* should, Dr. Muir-Wood states, be referred.

- (e) *subconicus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (subconicus)* (Class Brachiopoda) ;
- (f) *striatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (striatus)* (Class Brachiopoda) ;
- (g) *productus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (productus)* (Class Brachiopoda) ;
- (h) *pugnus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (pugnus)* (Class Brachiopoda) ;
- (i) *duplicatus* Martin, 1809, as published in the combination *Erismatolithus Madreporites (duplicatus)* (Class Anthozoa) ;
- (j) *floriformis* Martin, 1809, as published in the combination *Erismatolithus Madreporites (floriformis)* (Class Anthozoa).

(2) The under-mentioned specific names of species of the Class Brachiopoda, as validated under the Plenary Powers Ruling in (1)(a) to (1)(h) above respectively, are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below, the entries so made to be endorsed in each case in the manner shown hereunder :—

- (a) *resupinatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites resupinatus*, the species so named to be interpreted by the neotype therefor designated by George (T.N.) & Ponsford (D.A.) in 1938, particulars of which are given in Section (1) (paragraphs 5—7) of Appendix 1 to the present *Opinion* (Name No. 734) ;

- (b) *semireticulatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites semireticulatus*, the species so named to be interpreted by the neotype therefor designated by Muir-Wood (H.M.) in Section (2) (paragraphs 8 and 9) of Appendix 1 to the present *Opinion* (Name No. 735) ;
- (c) *crumena* Martin, 1809, as published in the combination *Conchyliolithus Anomites crumena*, the species so named to be interpreted by the neotype therefor designated by Muir-Wood (H.M.) in Section (3) (paragraphs 10—12) of Appendix 1 to the present *Opinion* (Name No. 736) ;
- (d) *trigonalis* Martin, 1809, as published in the combination *Conchyliolithus Anomites trigonalis*, the species so named to be interpreted by the neotype therefor designated by Muir-Wood (H.M.) in Section (4) (paragraphs 13—15) of Appendix 1 to the present *Opinion* (Name No. 737) ;
- (e) *subconicus* Martin, 1809, as published in the combination *Conchyliolithus Anomites subconicus*, the species so named to be interpreted by the neotype therefor designated by North (F.J.) in 1921, particulars of which are given in Section (5) (paragraphs 16—18) of Appendix 1 to the present *Opinion* (Name No. 738) ;
- (f) *striatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites striatus*, the species so named to be interpreted by the neotype therefor designated by Muir-Wood (H.M.) in Section (6) (paragraphs 19—21) of Appendix 1 to the present *Opinion* (Name No. 739) ;
- (g) *productus* Martin, 1809, as published in the combination *Conchyliolithus Anomites productus*, the species so named to be interpreted by reference to Martin's holotype, now preserved in the British Museum (Natural History), particulars of

which are given in Section (7) (paragraphs 22—24) of Appendix 1 to the present *Opinion* (Name No. 740);

- (h) *pugnus* Martin, 1809, as published in the combination *Conchyliolithus Anomites pugnus*, the species so named to be interpreted by reference to Martin's holotype, now preserved in the British Museum (Natural History), particulars of which are given in Section (8) (paragraph 25) of Appendix 1 to the present *Opinion* (Name No. 741).

(3) The under-mentioned specific names of species of the Class Anthozoa, as validated under the Plenary Powers under (1)(a) and (1)(b) above respectively, are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers specified below and respectively, the entries so made to be endorsed in the manner shown in each case below :—

- (a) *duplicatus* Martin, 1809, as published in the combination *Erismatolithus Madreporites duplicatus*, the species so named to be interpreted by reference to the neotype therefor designated by Stanley Smith in 1916, particulars of which are given in Section (a) of Appendix 2 of the present *Opinion* (Name No. 742);

- (b) *floriformis* Martin, 1809, as published in the combination *Erismatolithus Madreporites floriformis*, the species so named to be interpreted by reference to the neotype therefor designated by Stanley Smith in 1916, particulars of which are given in Section (b) of Appendix 2 of the present *Opinion* (Name No. 743).

(4) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Lonsdaleia* M^cCoy, 1849 (gender : feminine) (type species, by original designation : *Erismatolithus Madreporites duplicatus* Martin, 1809, as validated

under the Plenary Powers under (1)(i) above and as defined in (3)(a) above) (Class Anthozoa) (Name No. 999) ;

- (b) *Schizophoria* King, 1850 (gender : feminine) (type species, by original designation : *Conchyliolithus Anomites resupinatus* Martin, 1809, as validated under the Plenary Powers under (1)(a) above and as defined under (2)(a) above) (Class Brachiopoda) (Name No. 1000) ;
- (c) *Productus* Sowerby (J.), 1814 (gender : masculine) (type species, by absolute tautonymy : *Conchyliolithus Anomites productus*, as validated under the Plenary Powers under (1)(g) above and as defined under (2)(g) above) (Class Brachiopoda) (Name No. 1001) ;
- (d) *Dictyoclostus* Muir-Wood, 1930 (gender : masculine) (type species, by original designation : *Conchyliolithus Anomites semireticulatus*, as validated under the Plenary Powers under (1)(b) above and as defined under (2)(b) above) (Class Brachiopoda) (Name No. 1002).

(5) It is hereby directed that, when, in accordance with (2) and (3) above, the under-mentioned specific names are entered on the *Official List of Specific Names in Zoology*, an endorsement be made that the names in question are the specific names of the type species of the genera severally specified below :—

- (a) *resupinatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites resupinatus* : specific name of type species of *Schizophoria* King, 1850 ;
- (b) *semireticulatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites semireticulatus* : specific name of type species of *Dictyoclostus* Muir-Wood, 1930 ;
- (c) *productus* Martin, 1809, as published in the combination *Conchyliolithus Anomites productus* :

specific name of type species of *Productus* Sowerby (J.), 1814 ;

- (d) *duplicatus* Martin, 1809, as published in the combination *Erismatolithus Madreporites duplicatus* : specific name of type species of *Lonsdaleia* M^cCoy, 1849).

(6) It is hereby directed that the entry of the generic name *Spirifer* Sowerby (J.), 1816, as Name No. 472 on the *Official List of Generic Names in Zoology* made by the Ruling given in *Opinion* 100, as supplemented by the General Directive relating to the placing on that *List* of any name which has been made the subject of a direction under the Plenary Powers issued to the International Commission on Zoological Nomenclature by the Thirteenth International Congress of Zoology, Paris, 1948, be amended to read as follows :—

472. *Spirifer* Sowerby (J.), 1816 (type species, by designation under the Plenary Powers [*Opinion* 100] : *Conchylolithus Anomites striatus* Martin, 1809, as validated under the Plenary Powers [under (1)(f) above]).

(7) The under-mentioned specific names are hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Numbers severally specified below :—

- (a) *conaxis* M^cCoy, 1849, as published in the combination *Strombodes conaxis* (a junior objective synonym of *floriformis* Martin, 1809, as published in the combination *Erismatolithus Madreporites floriformis*, as validated under the Plenary Powers under (1)(j) above and as defined under (3)(b) above) (Class Anthozoa) (Name No. 315) ;
- (b) *semistriatus* Sowerby (J.), 1821, as published in the combination *Annomites* [sic] *semistriatus* (an Erroneous Subsequent Spelling of *semireticulatus* Martin, 1809, as published in the combination *Conchylolithus Anomites semireticulatus*) (Class Brachiopoda) (Name No. 316).

I.—THE STATEMENT OF THE CASE

The present case arises out of the decision taken by the International Commission on Zoological Nomenclature at its Session held in Paris in 1948 that in the work published in 1809 under the title *Petrificata Derbiensia* William Martin did not apply the principles of binominal nomenclature and therefore that new names in the foregoing work did not acquire the status of availability by reason of having been published therein. This decision was published in 1950 in the Official Record of the Proceedings of the Commission at its Paris Session (1950, *Bull. zool. Nomencl.* 4 : 450—452) and has since been formally promulgated in *Opinion 231* (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 4 : 239—248). In taking the foregoing decision, the International Commission recognised that there might be names in Martin's *Petrificata* of 1809 which had come into general use and which it was desirable should be preserved in the interests of nomenclatorial stability ; the Commission accordingly placed on record its willingness to give sympathetic consideration to any applications which might be submitted to it on this account. The open invitation so issued led to correspondence in the spring of 1950 between the Secretary to the Commission on the one hand and Dr. C. J. Stubblefield (*Geological Survey and Museum, London*) and Dr. Helen Muir-Wood (*British Museum (Natural History), London*) on the other hand. This correspondence culminated in the submission by the foregoing specialists of the following application on 18th September 1950 :—

Proposed use of the Plenary Powers to validate the trivial names of two nominal species of the Class Anthozoa and of eight nominal species of the Class Brachiopoda, published by William Martin in 1809 in the work entitled "Petrificata Derbiensia" and matters incidental thereto

By HELEN M. MUIR-WOOD, D.Sc.

(*Department of Geology, British Museum (Natural History), London*)

and

C. J. STUBBLEFIELD, D.Sc., F.R.S.

(*Geological Survey and Museum, London*)

At its Session held in Paris in July 1948 the International Commission on Zoological Nomenclature ruled that the works by W. Martin

published respectively in 1793,* under the title *Figures and Descriptions of Petrifications collected in Derbyshire* and in 1809 under the title *Petrificata Derbiensia* did not comply with the binominal requirements of the *Règles* and therefore that no new "names" published therein possessed any availability under the *Règles* in virtue of being published therein. It is assumed that in arriving at this decision consideration was taken of the publication by W. Martin of "Outlines of an Attempt to establish a Knowledge of Extraneous Fossils and Scientific Principles", [Macclesfield] 1809, pt. 1, vi, chapter headed "Principles of Nomenclature", pp. 202—203, where the following statement occurs: "Names of the Species. The name of a species properly consists of the generic (i.e. name of the genus) and trivial name. The trivial name is a word added to the name of the genus, in order to form a distinctive appellation for a species".†

In its ruling, the International Commission placed on record its intention "to give sympathetic consideration to any application which might be submitted by interested specialists for the validation as from Martin, 1809, of any trivial name first published by that author in his *Petrificata Derbiensia* where that name was in general use for a common species and it could be shown that under (1) above it would be necessary to change the name of that species and that such change would lead to confusion in nomenclature". (Commission Minutes, Paris Session, 14th Meeting, Conclusion 15 (2) 1950, *Bull. zool. Nomencl.* 4 (16/18) : 450—452.)

2. It is in accordance with the invitation so extended to specialists that the present application is submitted for consideration. It relates to the trivial names of ten species published in Martin's *Petrificata Derbiensia* of 1809. Several of the nominal species so named by Martin are the type species of important and well-known genera. The fossil genera in question contain species of common occurrence which are

* In the *Official Record* of the decision by the International Commission the date given for this work is 1793, the date which it bears, but according to a statement by Martin himself (1809, *Petrificata Derbiensia*, Preface : v) this work was published in Parts, the first Part not having been issued until 1794. It has not, however, proved possible to find any confirmation of this statement.

† "In writing or speaking of *permanent* species of reliquia, of which the originals are *unknown*, it will generally be found convenient to use the *family* name, with the *generic* and *trivial* ones—as, CONCHYL. *Anomites striatus*—CONCHYL. *Anomites productus*, &c., &c. In this mode, a more determinate idea is given of the *reliquium*, than if the *trivial* name were used with the *generic* one alone. Nor is the insertion of the family name between the generic and trivial appellations, as just given, contrary to the practice of our first naturalists, who, in treating of detached species belonging to *genera* in which Linnaeus found it necessary to establish *families* or *subdivisions*, frequently use the *family* name in conjunction with the *generic* and *trivial* denominations—as, 'PHALAENA Geomètra *rufata*—PAPILIO Eques *Hector*—PHALAENA *Tinea pratella*,'"

of importance in Carboniferous and Permian stratigraphical palaeontology, not only of Europe and Asia but also of America. Failure to validate these species would cause considerable confusion in stratigraphical and palaeontological literature. The request now submitted to the International Commission is that it should (1) validate each of the trivial names concerned under its Plenary Powers, and, having done so, should (2) place the trivial names in question on the *Official List of Specific Trivial Names in Zoology*.

3. In some of the cases now submitted the identity of the nominal species bearing the trivial names which form the subject of the present application has been determined by later authors, acting under Article 31. We recommend that in placing the trivial names in question on the *Official List*, the Commission should include a reference to such determinations in the same way as we understand was done in similar cases when names were placed by the Commission on this *Official List* during its Paris Session.

4. The names which we ask the Commission to validate under its Plenary Powers are specified in the following paragraphs where we give also the grounds on which we base the applications so submitted.

- (1) & (2) The trivial names “duplicatus” and “floriformis” Martin, 1809, as published respectively in the combinations “Erismatolithus Madreporites (duplicatus)” and “Erismatolithus Madreporites (floriformis)”**

5. The species name *Erismatolithus Madreporites (duplicatus)* Martin (W.), 1809 (*Petrif. derb.* : sign. N[4], pl. 30, figs. 1, 2) is the name of the coral nominal species which is the type species of the genus *Lonsdaleia* McCoy (F.), 1849 (*Ann. Mag. nat. Hist.* (2) 3 : 12). The species was designated as type species of the above genus by McCoy in 1849 (*loc. cit.*).

6. *Erismatolithus Madreporites (floriformis)* Martin, 1809 (*Petrif. derb.* : sign. U[1], pl. 43, figs. 3, 4 and pl. 44, fig. 5) has for more than seventy years been referred to the genus *Lonsdaleia*.

7. *Lonsdaleia* is a commonly occurring genus of Anthozoa in Carboniferous rocks, and the species *Lonsdaleia floriformis* (Martin) has, for over forty years, been used as a zonal index in Lower Carboniferous stratigraphy.

8. The first reviser of Martin's species was J. Fleming who, in 1828 (*The History of British Animals* : 509), assigned *E. M. duplicatus* to the recent genus *Caryophyllia* Lamarck, 1801 (*Syst. Anim. sans Vertèbr.* :

370) and placed *E. M. floriformis* in his new genus *Lithostrotion* (: 508). Fleming gave no new illustration of these species, but W. Lonsdale in 1845, "Description of some Characteristic Palaeozoic Corals of Russia" (in Murchison & others, *The Geology of Russia in Europe and the Ural Mountains* 1 : 603) selected Martin's species *E. M. floriformis* as the type species of Fleming's genus *Lithostrotion*. To stabilize modern concepts of both the genera *Lonsdaleia* McCoy and *Lithostrotion* Fleming, however, the International Commission in *Opinion* 117 published in 1931 (*Smithson. misc. Coll.* 73 (No. 7) : 18—19) suspended the Rules and standardised *Lithostrotion* Fleming, 1828, with *Lithostrotion striatum* Fleming, 1828 (*loc. cit.* : 508) as the type species.

9. The genus *Lonsdaleia* has been made the subject of a special study by Stanley Smith in a paper entitled "The Genus *Lonsdaleia* and *Dibunophyllum rugosum*", published in 1916 (*Quart. J. geol. Soc. Lond.* 71 : 218—272, pls. 17—21). The nomenclatorial history of the two *Lonsdaleia* species in question thus received particular attention, the results of which it would be confusing to workers to disturb. All Martin's syntypes of the two species now being considered are lost, but Stanley Smith chose two neotypes from the Sedgwick Museum collections, which he illustrated in his 1916 paper ; (1) for *Erismatolithus Madreporites duplicatus* as pl. xvii, fig. 1 and (2) for *E. M. floriformis* as pl. xix, figs. 1—3. The latter specimen was the type-specimen of *Strombodes conaxis* McCoy (*Ann. Mag. nat. Hist.* (2) 3 : 10, pl. 49).

10. There appears, therefore, to be a strong case for the validation of the trivial names of Martin's nominal species *Erismatolithus Madreporites duplicatus* and *Erismatolithus Madreporites floriformis* (commonly known as *Lonsdaleia duplicata* and *L. floriformis* respectively), since both the species in question are well known and commonly occurring Lower Carboniferous species, and any disturbance of these names would cause confusion.

(3) The trivial name "resupinatus" Martin, 1809, as published in the combination "Conchyliolithus Anomites (resupinatus)"

11. The species name *Conchyliolithus Anomites (resupinatus)* Martin, 1809 (*Petrif. derb.* : sign. Z[4], pl. 49, figs. 13, 14) is the name of the nominal species of brachiopod which is the type species of the genus *Schizophoria* King, 1850 (*Mon. Permian Foss.* (Palaeont. Soc.) : 105) by original designation.

12. Martin's species was redescribed by Sowerby (J.) in 1822 (*Min. Conch.* 4 : 25, pl. 325) as *Terebratula resupinata* from the Mountain Limestone of Derbyshire. The same species-name *Terebratula*

resupinata was, however, previously used by Sowerby (J.) in 1816 (*Min. Conch.* 2 : 116, pl. 150, figs. 3, 4) for a Middle Lias brachiopod from Ilminster, Somerset.

13. The species name *Terebratula resupinata* J. Sowerby, 1822 (= *Conch. Anomites resupinatus* Martin) is, therefore, preoccupied by *Terebratula resupinata* J. Sowerby, 1816.

14. Confusion would be caused if the name given by Martin to this species were invalidated, since the next use of the trivial name *resupinata* by Sowerby in 1822 in the combination *Terebratula resupinata* for Martin's species, is itself invalid by the previous use of the trivial name *resupinata* for another species in the same combination, *Terebratula resupinata* by Sowerby in 1816.

15. Furthermore, T. N. George and D. A. Ponsford in 1938 (*Trans. Leeds geol. Assoc.* 5(4) : 228) selected a shell figured by Davidson in 1861 (*Mon. Brit. Foss. Brach.* 2(5)(4) : 130, pl. 29, figs. 1, 1a, 1b), from Bolland preserved in the British Museum (Natural History), as a neotype of Martin's species, since Martin's original shell has not been found. This neotype was refigured and described by G. Bond in 1942 (*Proc. geol. Assoc.* 52(4) : 289, pl. 21, figs. A—C).

16. It is therefore recommended that the trivial name *resupinatus* Martin, 1809, in its published form *Anomites resupinatus*, commonly known as *Schizophoria resupinata* should be validated under the Plenary Powers.

(4) & (5) The trivial names "productus" Martin, 1793 and 1809, as published in the combinations "Conchyliolithus Anomia (productus)" and "Conchyliolithus Anomites (productus)", and "semireticulatus" Martin, 1809, as published in the combination "Conchyliolithus Anomites (semireticulatus)"

17. The species name *Conchyliolithus Anomites (productus)* Martin, 1809 (*Petrif. derb.* : sign. K[2], pl. 22, figs. 1—3) or *Conchyliolithus Anomia (productus)* Martin, 1793 (*Figs. Descr. Petrifications Derb.* : sign. L[3], pl. 22, figs. 1—3) is the name of the nominal species which is the type species of the genus *Productus* Sowerby (J.), 1814 (*Min. Conch.* 1 : 153) by subsequent designation of Thomas (I.) in 1914 (*Mem. geol. Surv. Gt. Brit. (Palaeont.)* 1(4) : 258).

18. The species name *Conchyliolithus Anomites semireticulatus* Martin, 1809 (*ibid.* : sign. O[3], pl. 32, figs. 1, 2, 3 and pl. 33, fig. 4) is the name of the nominal species which is the type species of the genus

Dictyoclostus Muir-Wood, 1930 (*Ann. Mag. nat. Hist.* (10)5 : 103) by original designation.

19. In the discussion on his genus *Productus*, Sowerby (J.) (1814, *loc. cit.*) stated—"His (Martin's) *Conch. Anomites productus* is a good type of the Genus, therefore, as the name *Anomites* must be laid aside, I have adopted his specific name as the Generic one . . ." Sowerby renamed Martin's species *C. Anomites productus*, calling it *Productus martini*.

20. Confusion arose, however, owing to Sowerby (J.) having figured three distinct species in 1821 (*Min. Conch.* 4 : pl. 317, figs. 2—4) as *Productus martini*, one of which was said to be intermediate between *P. martini* and *Productus antiquatus*, the latter nominal species being described by Sowerby as possibly Martin's *Anomites semireticulatus* (erroneously quoted as *Anomites* [*sic*] *semistriatus* on page 15).

21. Several later authors regarded *P. martini* and *P. semireticulatus* as synonymous. Dall in 1877 (*Bull. U.S. nat. Mus.* 8 : 58) gave the type species of *Productus* Sowerby as *P. martini* Sow.=*Anomites semireticulatus* Martin+*A. productus* Mart. S. A. Miller in 1889 (*N. Amer. Geol. Palaeont.* : 363) quoted *P. semireticulatus* and *P. longispinus* as types. Oehlert in 1887 (*in Fischer (P.), Manuel de Conchyliol. (Appendix) : 1277*) gave *P. martini* Sowerby=*Anomites productus* Martin as the type, while Hall and Clarke in 1894 (*Eleventh Ann. Rep. State Geol. N.Y. : 297*) quoted *P. semireticulatus* as the type species. Schuchert in 1897 (*Bull. U.S. Geol. Surv. : 87 : 319*) gave the type species as *Anomites productus* Martin=*Productus martini* Sowerby=*Productus semireticulatus* (Martin).

22. Thomas (I.) (1914, *loc. cit.*) was the first to make a clear selection of a type species for *Productus* Sowerby, so selecting *Productus productus* (W. Martin). This was adopted by Chao in 1927 (*Pal. sinica* (B) 5(2) : 26), by Muir-Wood in 1928 (*Mem. geol. Survey Gt. Brit. (Palaeont.)* 3(1) : 235) and by Schuchert and Levene in 1929 (*Foss. Cat.* 1 : 42 Brachiopoda, Generum et Genotyporum Index et Bibliographia) : 100).

23. In 1930 the two species *P. productus* (Martin) and *P. semireticulatus* (Martin) were finally disentangled by Muir-Wood (*Ann. Mag. nat. Hist.* (10)5 : 103), who then selected *P. semireticulatus* (Martin) as the type species of the genus *Dictyoclostus* Muir-Wood. This revision is now generally adopted by authors.

24. The invalidation, for these two species, of the trivial names given to them by Martin would cause considerable confusion in

nomenclature and the disentangling of Sowerby's nominal species, in order to determine the trivial names which would have to replace them, would necessitate a considerable amount of research. There appears, therefore, to be a good case for the validation of the trivial name *productus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (productus)* for the species commonly known as *Productus productus* (Martin), and of the trivial name *semireticulatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (semireticulatus)* for the species commonly known as *Dictyoclostus semireticulatus* (Martin).

(6) The trivial name "crumena" Martin, 1809, as published in the combination "Conchyliolithus Anomites (crumena)"

25. The nominal species *Conchyliolithus Anomites (crumena)* Martin, 1809 (*Petrif. derb.* : sign. R[1], pl. 36, fig. 4) was assigned to the genus *Camarophoria* (emend. of *Camerophoria*) King, 1850 (*Mon. Perm. Foss.* (Palaeont. Soc.) : 113) by King, 1850 (*ibid.* : 119, footnote). It was subsequently redescribed and figured as *Camarophoria crumena* from the Lower Carboniferous by Davidson in 1861 (*Mon. Brit. Foss. Brach.* 2(5)(3) : 113, pl. 25, figs. 3—9), Martin's figure being reproduced for comparison.

26. Prior to this, however, in 1815, Sowerby (J.) (*Min. Conch.* 1 : 190, pl. 83, figs. 2, 2*, 3) used Martin's trivial name *crumena* in describing the species as *Terebratula crumena*.

27. Sowerby's *T. crumena* includes three unrelated species, two Rhynchonellids from the Jurassic which are both figured in pl. 83, and Martin's Lower Carboniferous species mentioned in the description but not figured by Sowerby. Martin's type specimen is not preserved in the Sowerby collection and is not refigured in pl. 83, fig. 3.

28. In view of this confusion and of Sowerby's misidentification of Martin's species, there appears to be a good case for the validation of the trivial name *crumena*, 1809, as published in the combination *Conchyliolithus Anomites (crumena)* for the species commonly known as *Stenoscisma* [olim *Camarophoria*] *crumena* (Martin), since from 1861 onwards when the species was redescribed by Davidson, this trivial name is well established in Carboniferous literature.

(7) The trivial name "pugnus" Martin, 1809, as published in the combination "Conchyliolithus Anomites (pugnus)"

29. In 1793 (*Figs. Descr. Petrifications Derbyshire* : sign. L[4], pl. 22, figs. 4, 5) Martin published the name *Conchyliolithus Anomia (quinque-lobatus)*; in 1809 (*Petrif. derb.* : sign. K[4], pl. 22, figs. 4, 5) Martin

republished the above figures, to which on this occasion he assigned the name *Conchyliolithus Anomites (pugnus)*. No reason was given by Martin for this change ; the specific name *Anomites quinquelobatus* is not preoccupied. Thus, if the names published in Martin's two books were available for the purposes of zoological nomenclature, the entirely unknown name *quinquelobatus* Martin, 1793, would replace *pugnus* Martin, 1809, a name which is universally used for this common Lower Carboniferous species of brachiopod.

30. Sowerby (J. de C.) in 1825 (*Min. Conch.* 5 : 155, pl. 497, figs. 1—6) was the next author to describe Martin's species, which he assigned to the genus *Terebratula*. In 1840 (in the alphabetical index to volume 7 of the *Min. Conch.*) Sowerby transferred this species to the genus *Atrypa* Dalman, 1828 (*K. Vetensk-Akad. Handl.*, Stockholm 1827 : 93, 102). Five of the specimens assigned by Sowerby to *Terebratula pugnus* are from Ireland and one from Derbyshire. They belong to more than one species, but none is identical with the species to which Martin applied the trivial names *quinquelobatus* (in 1793) and *pugnus* (in 1809), the holotype of which is still in existence.

31. Thus, if the trivial name *pugnus* Martin, 1809, were not preserved by the International Commission, the name *pugnus*, as from Sowerby (1825), would have to be applied to a species different from that for which it is now universally used, a change which would certainly lead to great confusion. There is therefore a good case for the use by the Commission of its Plenary Powers to validate the trivial name *pugnus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (pugnus)* for use for the species to which it is now always applied.

(8) The trivial name "subconicus" Martin, 1809, as published in the combination "Conchyliolithus Anomites (subconicus)"

32. The species name *Conchyliolithus Anomites (subconicus)* was published by Martin in 1809 (*Petrif. derb.* : sign. Z[2], pl. 47, figs. 6—8). The species so named was first redescribed in 1840 (*Trans. Geol. Soc. Lond.* (2) 5 : pl. 57, fig. 10 and expl.) by Sowerby (J. de C.), who misidentified it from the British Devonian, citing it as *Spirifera subconica* var. Sowerby's figure represents an unrelated species nowadays identified as *Cyrtina heteroclita* (Defrance, 1827). This misidentification was furthered by Phillips in 1841 (*Figs. Descr. Pal. Foss. Cornwall* : 72, pl. 29, fig. 126), while de Koninck in 1843 (*Descr. Anim. foss. Belg.* : 255, pl. 12 bis, figs. 5, 5a, b, c) confused *subconicus* Martin with another unrelated species from the Belgian Lower Carboniferous. The species which de Koninck then erroneously called *Spirifer subconica* is identified nowadays as *Davidsonina septosa* (Phillips, 1836), var. *transversa* (J. W. Jackson).

33. The confusion in regard to the identity of Martin's species was finally cleared up by Davidson in 1858—59 (*Mon. Brit. foss. Brach.* 2(5)(1) : 48, pl. 9, fig. 3) and in 1863 (*ibid.* 2(5)(5) : 224, pl. 52, fig. 4) when an accurate description and illustration of the species were given under the name *Spirifera subconica*.

34. North (F.J.) in 1921 (*Quart. J. geol. Soc. Lond.* 76 : 203) assigned this species to his new genus *Tylothyris* North, 1921 (*ibid.* 76 : 195), applying to it the name *Tylothyris subconica subconica*. At the same time he selected but did not illustrate a neotype.

35. If the name *subconicus* Martin, 1809, were to be treated as unavailable for nomenclatorial purposes, it would not be possible to apply that trivial name, as from a later author, to the species for which it is at present habitually used, since (as shown above) the first author after Martin to make use of this name (J. de C. Sowerby) applied it, as the result of a misidentification, to a different species ; in consequence, it would be necessary to provide this species with a new name. As this is a common British Lower Carboniferous species, such a change of name would certainly cause confusion. There is therefore a good case for the use by the International Commission of its Plenary Powers to validate the trivial name *subconicus* Martin, 1809.

(9) The trivial name "trigonalis" Martin, 1809, as published in the combination "Conchylolithus Anomites (trigonalis)"

36. The species name *Conchylolithus Anomites (trigonalis)* was published by Martin in 1809 (*Petrif. derb.* : sign. Q[2], pl. 36, fig. 1). This trivial name was first republished in 1820 by Sowerby (J.) (*Min. Conch.* 3 : 117, pl. 265, figs. 2, 3). Martin's type specimen is not preserved ; it was not refigured by Sowerby. Sowerby's syntypes, which are extant, are referable not to *Anomites trigonalis* Martin but to a species near *Spirifer bisulcatus* Sowerby (J. de C.), 1825 (*Min. Conch.* 5 : 152).

37. McCoy in 1844 (*Syn. Carb. Limest. Foss. Ireland* : 135) in his description of *Spirifera trigonalis* stated that there were two species—that of Martin and that of Sowerby—confused under this name. These two species were disentangled by Davidson in 1858 (*Mon. Brit. foss. Brach.* 2(5)(1) : 29, pl. 5, figs. 25, 29—33) and 1863 (*ibid.* 2(5)(5) : 222, pl. 50, figs. 3, 4, *nec* 5—9). Later, however, in 1880 (*ibid.* 4(3) : 276, pl. 32, fig. 13 ; pl. 34, figs. 2—5) Davidson again confused this species with other Carboniferous Spirifers. Schwetsov in 1925 (*Bull. Soc. Nat. Moscou* 33 : 155) included Martin's species in his *Spirifer trigonalis* Martin, var. *typica*.

38. We find therefore that on the occasion of the first use, subsequent to Martin (1809), of the trivial name *trigonalis* (namely that by J. de C. Sowerby in 1820) this trivial name was applied not to the species so named by Martin but to another species, and, therefore, that, if the name *trigonalis* Martin, 1809, were not to be validated by the International Commission, it would be necessary to apply it in an entirely unaccustomed sense and at the same time to provide a new name for the species now known as *Spirifer* (or *Fusella*) *trigonalis*. This is a common Lower Carboniferous species and its trivial name *trigonalis* is well established in stratigraphical and palaeontological literature. Any disturbance of that name would certainly give rise to confusion, and there is therefore a good case for the use by the International Commission of its Plenary Powers to validate the trivial name *trigonalis* Martin, 1809, for use in its customary sense.

(10) The trivial name "striatus" Martin, 1809, as published in the combination "Conchylolithus Anomites (striatus)"

39. The species name *Conchylolithus Anomites (striatus)* was published by Martin in 1809 (*Petrif. derb.* : sign. L[1], pl. 23, figs. 1, 2). The same trivial name had previously been applied by Martin to the same species in the combination *Conchylolithus Anomia (striatus)* in 1793 (*Figs. Descr. Petrifications Derbyshire* : sign. M[1], pl. 23, figs. 1, 2 et expl.). This is an extremely well-known species and for nearly 100 years has been treated as the type species of the genus *Spirifer* Sowerby (J.), 1816 (*Min. Conch.* 2 : 41). Under the *Règles*, this usage was incorrect and accordingly in 1924 Muir-Wood submitted an application to the International Commission asking for the use of the Plenary Powers to regularise universally accepted nomenclatorial practice by designating the above species as the type species of *Spirifer* Sowerby. This application was approved by the Commission, whose decision was promulgated in *Opinion* 100 published in 1928 (*Smithson. misc. Coll.* 73 (No. 5) : 9—12). The Commission was not asked on that occasion to validate the trivial name *striatus* Martin (the question of the availability of names in Martin's two books not then being raised as such), the only request put to the Commission, and the only question on which it gave a decision, being concerned with the type species of the genus *Spirifer* Sowerby. The present opportunity is accordingly taken to ask the International Commission to complete the case dealt with in *Opinion* 100 by using its Plenary Powers to validate the trivial name *striatus* Martin, 1809, as published in the combination *Conchylolithus Anomites (striatus)*.

Recommendations

40. Since we understand from the *Official Record of the Proceedings of the International Commission on Zoological Nomenclature at its Session held in Paris in July 1948* (1950, *Bull. zool. Nomencl.* 4) that

it is the policy of the International Commission and of the International Congress of Zoology to develop the *Official List of Generic Names in Zoology* to the fullest extent possible and since a large part of the case on which the present application is based rests upon the fact that several of the specific trivial names which we ask should be validated are the names of type species of important genera, we recommend that the names of those genera should be placed on the *Official List* for such names at the same time that the trivial names now proposed to be validated are placed on the *Official List of Specific Trivial Names in Zoology*.

41. We accordingly ask the International Commission on Zoological Nomenclature :—

- (1) under the procedure laid down under Section (2) of the Fifteenth Conclusion at the Fourteenth of its Meetings held in Paris in July 1948 (*Bull. zool. Nomencl.* 4 : 452), to use its Plenary Powers to validate the under-mentioned trivial names published by Martin (W.) in 1809 in the work entitled *Petrificata Derbiensia* :—

(i) Class Anthozoa

- (a) *duplicatus* Martin, 1809, *ibid.* : sign. N[4], pl. 30, figs. 1, 2, as published in the combination *Erismatolithus Madreporites (duplicatus)* ;
- (b) *floriformis* Martin, 1809, *ibid.* : sign. V[1], pl. 43, figs. 3, 4, as published in the combination *Erismatolithus Madreporites (floriformis)* ;

(ii) Class Brachiopoda

- (c) *resupinatus* Martin, 1809, *ibid.* : sign. Z[4], pl. 49, figs. 13, 14, as published in the combination *Conchyliolithus Anomites (resupinatus)* ;
- (d) *semireticulatus* Martin, 1809, *ibid.* : sign. O[3], pl. 32, figs. 1—3, pl. 33, fig. 4, as published in the combination *Conchyliolithus Anomites (semireticulatus)* ;
- (e) *productus* Martin, 1809, *ibid.* : sign. K[2], pl. 22, figs. 1—3, as published in the combination *Conchyliolithus Anomites (productus)* ;
- (f) *crumena* Martin, 1809, *ibid.* : sign. R[1], pl. 36, fig. 4, as published in the combination *Conchyliolithus Anomites (crumena)* ;
- (g) *pugnus* Martin, 1809, *ibid.* : sign. K[4], pl. 22, figs. 4, 5, as published in the combination *Conchyliolithus Anomites (pugnus)* ;

- (h) *trigonalis* Martin, 1809, *ibid.* : sign. Q[2], pl. 36, fig. 1, as published in the combination *Conchylolithus Anomites (trigonalis)* ;
- (i) *subconicus* Martin, 1809, *ibid.* : sign. Z[2], pl. 47, figs. 6—8, as published in the combination *Conchylolithus Anomites (subconicus)* ;
- (j) *striatus* Martin, 1809, *ibid.* : sign. L[1], pl. 23, figs. 1, 2 et expl., as published in the combination *Conchylolithus Anomites (striatus)* ;

(2) to place the ten trivial names specified in (1) above on the *Official List of Specific Trivial Names in Zoology*, subject, in the under-mentioned cases, to the addition of the following notes specifying the manner in which the nominal species in question is to be interpreted :—

- (a) *duplicatus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated as fig. 1 on plate 17 in the paper by Stanley Smith published in 1916 (*Quart. J. geol. Soc. Lond.* 71) ;
- (b) *floriformis* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated as figs. 1—3 on plate 19 in the paper by Stanley Smith published in 1916 (*Quart. J. geol. Soc. Lond.* 71) ;
- (c) *resupinatus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated as figs. 1, 1a, 1b, on plate 29 in the portion of Davidson's monograph published in 1861 (*Mon. brit. foss. Brach.* 2(5)(4) (specimen refigured by Bond in 1942, *Proc. geol. Assoc.* 52(4) : 289, pl. 21, figs. A—C) ;
- (d) *crumena* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimens illustrated as figs. 3—8 on pl. 25 in the portion of Davidson's monograph published in 1861 (*Mon. brit. foss. Brach.* 2(5)(3)) ;
- (e) *subconicus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated by Davidson in 1859 as fig. 3 on plate 9 (*Mon. brit. foss. Brach.* 2(5)(1)) ; and as fig. 4 on plate 52 (*ibid.* 2(5)(5)) published in 1863 ;
- (f) *trigonalis* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated as fig. 25 on plate 5 and as figs. 3—4 on plate 50 of Davidson's monograph published in 1858 and 1863 (*Mon. brit. foss. Brach.* 2) ;

- (g) *pugnus* Martin, 1809 : the nominal species so named to be interpreted by reference to Martin's type specimen (No. B.61451 in Brit. Mus. (Nat. Hist.)) illustrated by Muir-Wood in 1951 (*Ann. Mag. nat. Hist.* (12) 4 : pl. 4, figs. 3a—c) ;
- (h) *striatus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen illustrated in 1820 by Sowerby (J.), as upper figure on plate 270 (err. as 170) of *Min. Conch.* 3. (Specimen preserved in the Coll. Brit. Mus. (Nat. Hist.) No. B.61016) ;
- (i) *semireticulatus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen (No. B.3685 in Brit. Mus. (Nat. Hist.)) illustrated as figs. 2a—c on pl. 4 in 1928 by Muir-Wood (*Mem. geol. Surv. Gt. Brit.* (Palaeont) 3(1)) ;
- (j) *productus* Martin, 1809 : the nominal species so named to be interpreted by reference to the specimen (No. 32453 in Geological Survey Museum) illustrated in 1928 as figs. 1a—d on pl. 1 by Muir-Wood (*Mem. geol. Surv. Gt. Brit.* 3(1)).

(3) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—

- (a) *Lonsdaleia* McCoy, 1849, *Ann. Mag. nat. Hist.* (2) 3 : 11 (type species, by original designation : *Erismatolithus Madreporites duplicatus* Martin, 1809, as proposed, under (1)(a) above, to be validated under the Plenary Powers, the nominal species so named to be interpreted as specified in (2)(a) above) (Class Anthozoa) ;
- (b) *Schizophoria* King, 1850, *Mon. Perm. Foss.* (Palaeont. Soc.) : 105, 106 (type species, by original designation : *Conchyliolithus Anomites resupinatus* Martin, 1809, as proposed under (1)(c) above, to be validated under the Plenary Powers, the nominal species so named to be interpreted as specified in (2)(c) above) (Class Brachiopoda) ;
- (c) *Productus* Sowerby (J.), 1814, *Min. Conch.* 1 : 153 (type species, by subsequent selection by Thomas (I.), 1914 (*Mem. geol. Survey Gt. Brit.* (Palaeont.) 1(4) : 258) : *Conchyliolithus Anomites productus* Martin, 1809, as proposed, under (1)(e) above, to be validated under the Plenary Powers) (Class Brachiopoda) ;
- (d) *Dictyoclostus* Muir-Wood, 1930, *Ann. Mag. nat. Hist.* (10) 5 : 103 (type species, by original designation : *Conchyliolithus Anomites semireticulatus* Martin, 1809, as proposed, under (1)(d) above, to be validated under the Plenary Powers) (Class Brachiopoda) ;

- (4) to amend the entry in relation to the name *Spirifer* Sowerby (J.), 1816, made in the *Official List of Generic Names in Zoology* under *Opinion* 100, as supplemented by the decision taken in 1948 that every generic name for which the Plenary Powers are used is to be placed on the foregoing *List* (1950, *Bull. zool. Nomencl.* 4 : 267), to read as follows :—

Spirifer Sowerby (J.), 1816, *Min. Conch.* 2 : 41 (type species, by designation under the Plenary Powers (*Opinion* 100) : *Conchylolithus Anomites striatus* Martin, 1809 (as proposed, under (1)(j) above, to be validated under the Plenary Powers)) (Class Brachiopoda) ;

- (5) to place the under-mentioned trivial names on the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* :

(a) *conaxis* McCoy, 1849, *Ann. Mag. nat. Hist.* (2) 3 : 10, pl. 49, as published in the combination *Strombodes conaxis* (trivial name of a nominal species, the holotype of which is the specimen, by which, as specified in (2)(b) above, the nominal species *Erismatolithus Madreporites floriformis* Martin, 1809, as proposed, under (1)(b) above, to be validated under the Plenary Powers, is to be interpreted) ;

(b) *semistriatus* Sowerby (J.), 1821, *Min. Conch.* 4 : 15, as published in the combination *Annomites* [sic] *semistriatus* (a *faute de transcription* for "*Anomites semireticulatus*" Martin, 1809).

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : At the time of the commencement of the preliminary correspondence which led up to the submission of the present application, the Registered Number Z.N.(S.) 461 was allotted to the problem involved in the suggested validation under the Plenary Powers of certain of the names for species of the Classes Anthozoa and Brachiopoda published by Martin in 1809 in his *Petrificata Derbiensia*.

3. Publication of the present application : After the submission of the present application discussion was necessary in regard to various minor matters. This was completed in April 1951 and the present application was thereupon sent to the printer. Publication took place on 28th September 1951, the present application appearing in Part 1 of volume 6 of the *Bulletin of Zoological Nomenclature* (Muir-Wood & Stubblefield, 1951, *Bull. zool. Nomencl.* **6** : 7—17).

4. Issue of Public Notices : Under the revised arrangements approved by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 28th September 1951, both in Part 1 of volume 6 of the *Bulletin of Zoological Nomenclature* (the Part in which the present application was published) and also to the prescribed serial publications. In addition, such Notice was given also to a number of general zoological serial publications and to certain palaeontological serials in Europe and America.

5. Comments received : The issue of the Public Notices referred to in paragraph 4 above elicited support for the action proposed from one specialist in Germany, from two specialists in the United Kingdom and from an organised group of palaeontologists in the United States. The communications so received are reproduced in the immediately following paragraphs. No objection was received from any source.

6. Support received from Dr. Herta Schmidt (Natur-Museum u. Forschungs-Institut Senckenberg, Senckenberg-Anlage, Frankfurt a.M., Germany) : On 1st November 1951 Dr. Herta Schmidt (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M.*) indicated as follows her support for the present application (Schmidt (H.), 1952, *Bull. zool. Nomencl.* **6** : 219) :—

Soweit die Vorschläge Brachiopoden betreffen, stimme ich ihnen zu.

7. Support received from Dr. Stanley Smith (University of Bristol, Bristol, England) : On 24th November 1951 Dr. Stanley Smith (*University of Bristol, England*) addressed the following letter to the Commission in support of the present application (Smith (S.), 1952, *Bull. zool. Nomencl.* **6** : 219) :—

I wish to support the application made to the International Commission on Zoological Nomenclature by Dr. H. Muir-Wood and Dr. C. J. Stubblefield to validate the trivial names of certain Carboniferous corals and brachiopods published by William Martin, 1809, in *Petrificata Derbiensia* specified by them in *Bulletin Zoological Nomenclature*, vol. 6, Pt. 1, September, 1951.

The names in question have been in constant use for a very long time, and to discard them now would give rise to serious difficulties and confusion.

8. Support received from Dr. J. Shirley (University of Durham, King's College, Newcastle-upon-Tyne, England) : On 10th January 1952 Dr. J. Shirley (*University of Durham, King's College, Newcastle-upon-Tyne*) addressed the following letter to the Commission in support of the present application (Shirley, 1952, *Bull. zool. Nomencl.* **6** : 219—220) :—

The dropping of Martin's work on the Carboniferous Limestone Fossils of Derbyshire (1809) for the purpose of nomenclature, comes as a shock to those engaged on the palaeontology and stratigraphy of this system and I would like urgently to support the efforts of Drs. Stubblefield and Muir-Wood to reinstate some of Martin's names. In my opinion his names were strictly binominal since the prefix *Conchylolithus* meant nothing more than that the shell was fossil and the above workers' quotation from Martin (1951, *Bull. zool. Nomencl.* **6** : 7) drives this point home. It is true that the descriptions are inadequate for modern purposes, but many of the illustrations are very good for their time, and there is little difficulty in recognising almost all the species among collections of specimens from Derbyshire.

I would particularly like to support the use of the Plenary Powers of the Commission (Z.N.(S.) 461) in the matter of the species there listed. As an example of their frequency in the literature, I have taken the *Quarterly Journal of the Geological Society* back to 1940 and listed the articles in which they are mentioned as definite identification.

Out of seven papers on the Lower Carboniferous, the species are mentioned, generally frequently, in the number of papers given :—

<i>duplicatus</i>	2	<i>floriformis</i>	4	<i>resupinatus</i>	4
<i>semireticulatus</i>	4	<i>productus</i>	1	<i>crumena</i>	1
<i>pugnus</i>	3	<i>trigonalis</i>	5	<i>subconicus</i>	0
<i>striatus</i>	3				

Only one species receives no mention in these papers. This is for only one journal. I think it would be true to say that it is almost impossible to pick up any general work on the stratigraphy-palaeontology of the British Lower Carboniferous which does not mention as definite identifications some of the species of Martin, and you can imagine the confusion which would arise if Martin's species names were dropped.

9. Support received from the Joint Committee on Zoological Nomenclature for Paleontology in America : On 9th April 1952 there was received the following letter dated 18th February 1952, in which Professor G. Winston Sinclair (then of the *University of Michigan, Ann Arbor, Michigan, U.S.A.*), Chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America, reported that nine members of the Committee supported the present application, while two were opposed to it :—

The Joint Committee on Zoological Nomenclature for Paleontology in America has considered this subject, and I wish to inform you that, being polled, they voted : To support the petitions (9) :—Katherine V. W. Palmer ; A. Myra Keen ; G. Winston Sinclair ; J. Marvin Weller ; R. C. Moore ; John B. Reeside, Jr. ; Bobb Schaeffer ; Bryan Patterson ; Simon W. Muller. To oppose the petition (2) :—John W. Wells ; Don L. Frizzell.

III.—THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

10. Issue of Voting Paper V.P.(52)42 : On 15th May 1952, a Voting Paper (V.P.(52)42) was issued in which the Members of

the Commission were invited to vote either for, or against, the proposal "relating to the names of certain species and genera in the Classes Anthozoa and Brachiopoda as set out in Points (1) to (5) on pages 15 to 17 of volume 6 of the *Bulletin of Zoological Nomenclature* (i.e. in the concluding paragraph of the application reproduced in the first paragraph of the present *Opinion*).

11. The Prescribed Voting Period for Voting Paper V.P.(52)42 :
As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 15th August 1952.

12. Particulars of the Voting on Voting Paper V.P.(52)42 : At the close of the Prescribed Voting Period the state of the voting on Voting Paper V.P.(52)42 was as follows :—

(a) *Affirmative Votes had been given by the following fifteen (15) Commissioners (arranged in the order in which Votes were received) :*

Hering ; Calman ; Dymond ; Hankó ; Bonnet ; Vokes ;
do Amaral ; Pearson ; Bradley ; Hemming ; Esaki ;
Riley ; Lemche ; Stoll ; Boschma ;

(b) *Negative Votes, one (1) :*

Cabrera ;

(c) *On Leave of Absence, one (1) :*

Mertens ;

(d) *Voting Papers not returned, one (1) :*

Jaczewski.

13. Declaration of Result of Vote on Voting Paper V.P.(52)42 :

On 23rd August 1952, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(52)42, signed a Certificate that the Votes cast were as set out in paragraph 12 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

14. Supplementary applications submitted in 1954 by Dr. Helen Muir-Wood and Dr. C. J. Stubblefield :

In April 1954 Dr. Helen Muir-Wood and Dr. C. J. Stubblefield (the original applicants in the present case) notified the Office of the Commission that, having regard to the decision by the Fourteenth International Congress of Zoology, Copenhagen, 1953, to incorporate in the *Règles* provisions recognising the concept of neotypes as a category of type specimen, they had come to the conclusion that in those cases where they had originally asked that the Commission should direct that given species should be interpreted by reference to specified previously published figures it would be preferable if the Commission would now direct that the species concerned should be interpreted by neotypes. In due course supplementary applications in this sense were submitted both by Dr. Muir-Wood and by Dr. Stubblefield. In her supplementary application Dr. Muir-Wood asked that in the case of six out of the eight nominal species of the Class Brachiopoda, the names of which had been dealt with in her original application, neotypes should be recognised by the Commission. In two cases unofficial neotypes had previously been established by other specialists and these Dr. Muir-Wood asked should now be officially recognised. In the remaining cases the neotypes suggested were either specimens, figures of which she had previously proposed that the Commission should make the sole standard of reference for the identification of the species concerned or other historical specimens of similar origin which for various reasons she had now concluded were more suitable for designation as neotypes. Dr. Stubblefield's original application had been concerned with two species of the Class Anthozoa, for both of which unofficial neotypes had previously been designated, and in that application Dr. Stubblefield had asked

that figures of the specimens so designated should be made the sole standard of reference for the species concerned. In his supplementary application Dr. Stubblefield asked that in place of his earlier recommendation the neotypes themselves should now be formally recognised. Dr. Muir-Wood's supplementary application is annexed to the present *Opinion* as Appendix 1, and that by Dr. Stubblefield as Appendix 2.

15. Submission to the Commission in October 1955 of proposals based upon the supplementary applications received from Dr. Muir-Wood and Dr. Stubblefield respectively : On 12th October 1955, Mr. Hemming, as Secretary, submitted to the Commission the following paper in which he set forth proposals designed to give effect to the supplementary applications received from Dr. Helen Muir-Wood and Dr. C. J. Stubblefield respectively and in which he took the opportunity to correct a minor slip in the original application regarding the manner in which the nominal species *Conchylolithus Anomites productus* Martin, 1809, had become the type species of the nominal genus *Productus* Sowerby (J.), 1814 :—

Supplementary proposals consequential on the validation under the Plenary Powers of certain specific names in the Classes Anthozoa and Brachiopoda originally published by Martin (W.), 1809, in the work "Petrificata Derbiensia", since rejected by the International Commission for nomenclatorial purposes

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

The present paper is concerned with certain proposals of a procedural character which have been submitted by Dr. Helen Muir-Wood (*British Museum (Natural History), London*) and Dr. C. J. Stubblefield (*Geological Survey and Museum, London*) in relation to an application submitted by them for the validation under the Plenary Powers of certain specific names in the Classes Brachiopoda and Anthozoa which were originally published by Martin (W.) in 1809, in his work entitled *Petrificata Derbiensia*, which has since been rejected by the Commission for nomenclatorial purposes (Muir-Wood & Stubblefield, 1951, *Bull. zool. Nomencl.* 6 : 7—17). The relevant facts are set out below.

2. The application referred to above was approved unanimously by the Commission in 1952 in its vote on Voting Paper V.P.(52)42. The question which now arises is in connection with the form in which the foregoing decision is to be recorded. In the case of each of the ten specific names validated as from Martin, 1809, by the decision referred to above, the applicants asked that the Commission, when placing the names concerned on the *Official List of Specific Names in Zoology*, should give express directions as to how the nominal species in question were to be interpreted. In two cases, those relating to the names *pugnus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (pugnus)*, and *productus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (productus)* no problem arises, for in these instances Martin's holotypes are still in existence. In the remaining eight cases the Commission was asked to direct, and did so direct, that the species concerned should be identified by reference to certain specified previously published figures.

3. Although the Commission took its decision in this case in 1952, pressure of work made it impossible for this Office to prepare the requisite *Opinion* prior to the opening of the Fourteenth International Congress of Zoology at Copenhagen in 1953. After that Congress Dr. Muir-Wood and Dr. Stubblefield took the view that the formal situation had been changed by the decision of that Congress to include in the *Règles* provisions recognising the concept of neotypes as a category of type specimen and they notified this Office that they considered that in these circumstances it was desirable that in the *Opinion* embodying the decision taken by the Commission in this case the portion of that decision linking the specific names in question to particular published figures should be replaced by a decision that the species concerned should be interpreted by neotypes. Dr. Muir-Wood and Dr. Stubblefield have accordingly each submitted proposals to this end, so far as concern the names dealt with the portions of the original application for which they were respectively responsible.

4. Full particulars of the neotypes now proposed to be accepted are given in the supplementary applications received. The following is a summary of the principal points :—

- (1) In four cases it is proposed that the species concerned should be interpreted by reference to neotypes which were unofficially designated as such before the Copenhagen Congress gave official recognition to the neotype concept. The species concerned are *duplicatus* and *floriformis* (Class Anthozoa) and *resupinatus* and *subconicus* (Class Brachiopoda). The neotypes concerned are of long standing, those for the two first species having been designated by Stanley Smith in 1916, that for *resupinatus* by George & Ponsford in 1938 and that for *subconicus* by North in

1921. In the first three cases the neotypes now proposed to be accepted are the specimens, figures of which the Commission has already agreed should be the standard of reference for the species concerned. In the case of *subconicus*, no figure was published by North and it was for this reason that in the original application it was proposed that this species should be interpreted by reference to one of Davidson's figures. Arrangements have now been made for the publication of a figure of North's neotype and it is accordingly proposed that that neotype be substituted for the figure by Davidson originally proposed as the standard of reference.

- (2) In two cases Dr. Muir-Wood in the proposal now submitted has designated as neotypes the specimens, figures of which the Commission has already agreed should be the standard of reference for the species concerned. These species are :—*trigonalis* and *striatus* (Class Brachiopoda). In the case of the first of these species figures by Davidson of several specimens were cited in the original application. The specimen now selected as the neotype is the last of these, i.e. that figured on plate 50, fig. 4, which is also the same specimen as that previously shown (1858) as fig. 33 on plate 5 of his *Monograph*.
- (3) In the case of the two remaining names, both of which are of species in the Class Brachiopoda, Dr. Muir-Wood designated neotypes in the application now submitted but in these cases, unlike those discussed under (2) above, the specimens so designated are not those on which were based the figures which in the original application it was proposed should be taken as the standard of reference for the species concerned, those specimens not being considered suitable in every respect for designation as neotypes. The species here concerned are :—(1) *crumena*, the neotype designated for which is the specimen figured by Davidson in 1863 as plate 54, fig. 18. (2) *semireticulatus*, the neotype designated for which is the specimen figured by Muir-Wood in 1928 as text fig. 19.
- (4) Of the eight neotypes here concerned, five (*resupinatus*, *crumena*, *trigonalis*, *striatus*, *semireticulatus*) are in the British Museum (Natural History), two (*duplicatus*, *floriformis*) are in the Sedgwick Museum, Cambridge University, and one (*subconicus*) is in the National Museum of Wales, Cardiff.

5. Full particulars have been furnished by Dr. Muir-Wood and Dr. Stubblefield respectively regarding such matters as the labels

attached to, or associated with, the neotypes concerned in the present application.

6. The present occasion is taken also to correct a minor error in the portion of the original application relating to the generic name *Productus* Sowerby, 1814. It was there stated that the species *Conchyliolithus Anomites productus* Martin, 1809, had been selected as the type species of the foregoing genus by Thomas in 1914. This statement was correct, but by an oversight it was not noted that the type species of this genus was automatically the above species by absolute tautonymy under Rule (d) in Article 30 and that in consequence Rule (g) (type species by subsequent selection) was not applicable in this case.

7. In the circumstances I recommend the International Commission :

- (1) to approve the proposals submitted by Dr. Muir-Wood and Dr. Stubblefield respectively that in the case of the eight specific names originally published in 1809 in Martin's *Petrificata Derbiensia* specified in paragraph 4 above, which the Commission by its Vote on Voting Paper V.P.(52)42 has validated under its Plenary Powers as from the above author and date, the directions as to the interpretation of the species concerned by reference to previously published figures be replaced by a direction recognising the neotypes which, as explained in paragraph 3, have been established for those species, in the case of the two nominal species belonging to the Class Anthozoa, by Dr. Stanley Smith, and, in the case of the six nominal species belonging to the Class Brachiopoda, by George & Ponsford (one neotype), by North (one neotype) and Dr. Muir-Wood (four neotypes) ;
- (2) to insert in the Ruling to be given in the *Opinion* embodying the decision taken by the Commission in its vote on the Voting Paper specified in (1) above, a note to the entry relating to the specific names *productus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (productus)* and *pugnus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (pugnus)*, which by that vote were validated under the Plenary Powers, stating that Martin's holotypes of those species are now preserved in the British Museum (Natural History) in the White Watson Collection ;
- (3) to amend the entry on the *Official List of Generic Names in Zoology* relating to the generic name *Productus* Martin, 1809, to be made in the Ruling in the *Opinion* referred to above, so as to record that the nominal species *Conchyliolithus Anomites productus* Martin, 1809, became the type species

of the foregoing genus by absolute tautonymy under Rule (d) in Article 30 instead of by subsequent selection under Rule (g) in the foregoing Article as inadvertently stated in the original application relating to this name.

16. Issue of Voting Paper V.P.(O.M.)(55)33 : On 12th October 1955 a Voting Paper (V.P.(O.M.)(55)33) was issued in which the Members of the Commission were invited to vote either for, or against, “ (a) the proposals submitted respectively by Dr. Helen Muir-Wood and Dr. C. J. Stubblefield summarised in Point (1) in paragraph 7 of the paper bearing the Number Z.N.(S.) 461 submitted by the Secretary simultaneously with the present Voting Paper [i.e. in paragraph 7 of the paper reproduced in paragraph 15 of the present *Opinion*], namely that the two nominal species belonging to the Class Anthozoa and the six nominal species belonging to the Class Brachiopoda specified in paragraph 4 of the above paper, the names of which have already been validated under the Plenary Powers by the vote taken on Voting Paper V.P.(52) 42, be interpreted by the neotypes which have been designated therefore, this decision to replace the at present unpromulgated decision taken on the foregoing Voting Paper (a decision which was taken prior to the incorporation into the *Règles* of provisions recognising the concept of neotypes as a category of type specimen) that the nominal species concerned should be interpreted by reference to certain specified previously published figures, and (b) the proposals specified in Points (2) and (3) in paragraph 7 of the paper referred above submitted by the Secretary for the purpose of securing, in the one case, a clarification, and, in the other case, a minor adjustment of the proposals originally submitted in the present case ”.

17. The Prescribed Voting Period for Voting Paper V.P.(O.M.) (55)33 : As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 12th November 1955.

18. Particulars of the Voting on Voting Paper V.P.(O.M.) (55)33 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(55)33 was as follows² :—

(a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

Hering ; Holthuis ; Lemche ; Vokes ; Stoll ; Esaki ;
 Boschma ; Riley ; Miller ; Bradley (J.C.) ; Prantl ;
 Mayr ; Jaczewski ; Tortonese ; do Amaral ; Dymond ;
 Hemming ; Bonnet ; Mertens ; Cabrera ; Key ;
 Kühnelt ; Hankó ;

(b) *Negative Votes, one (1) :*

Sylvester-Bradley ;

(c) *On Leave of Absence, one (1) :*

Bodenheimer ;

² During the interval between the taking of the vote on Voting Paper V.P.(52)42 and of the vote on Voting Paper V.P.(O.M.) (55)33, the Commission had suffered two losses in its Membership, Commissioner W. T. Calman having died and Commissioner Joseph Pearson having retired. During the same period the following nine zoologists had been elected to the membership of the Commission :—

- Mr. P. C. Sylvester-Bradley (*Sheffield University, Sheffield, England*) (12th August 1953)
 Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)
 Dr. K. H. L. Key (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)
 Dr. Alden H. Miller (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)
 Doc. Dr. Ferdinand Prantl (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)
 Professor Dr. Wilhelm Kühnelt (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)
 Professor F. S. Bodenheimer (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)
 Professor Ernst Mayr (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)
 Professor Enrico Tortonese (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

(d) *Voting Paper not returned* :

None.

19. Declaration of Result of Vote on Voting Paper V.P.(O.M.) (55)33 : On 12th November 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(55)33, signed a Certificate that the Votes cast were as set out in paragraph 18 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

20. Preparation of the Ruling given in the present "Opinion" : On 4th March 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(52)42, as supplemented and, in part, amended by the Vote taken on Voting Paper V.P.(O.M.)(55)33.

21. Original References : The following are the original references for the generic names placed or confirmed on the *Official List of Generic Names in Zoology* by the Ruling given in the present *Opinion* and of the specific names placed by that Ruling on the *Official List of Specific Names in Zoology*, and on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—

conaxis, *Strombodes*, M^cCoy, 1849, *Ann. Mag. nat. Hist.* (2)
3 : 10, pl. 49

crumena, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.*
: sign. R[1], pl. 36, fig. 4

Dictyoclostus Muir-Wood, 1930, *Ann. Mag. nat. Hist.* (10)
5 : 103

duplicatus, *Erismatolithus Madreporites*, Martin, 1809, *Petrif. derb.* : sign. N[4], pl. 30, figs. 1, 2

floriformis, *Erismatolithus Madreporites*, Martin, 1809, *Petrif. derb.* : sign. V[1], pl. 43, figs. 3, 4

Lonsdaleia McCoy, 1849, *Ann. Mag. nat. Hist.* (2) 3 : 11

Productus Sowerby (J.), 1814, *Min. Conch.* 1 : 153

productus, *Conchylolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. K[2], pl. 22, figs. 1—3

pugnus, *Conchylolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. K[4], pl. 22, figs. 4, 5

resupinatus, *Conchylolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. Z[4], pl. 49, figs. 13, 14

Schizophoria King, 1850, *Mon. Perm. Foss.* (Palaeont. Soc.) : 105, 106

semireticulatus, *Conchylolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. O[3], pl. 32, figs. 1—3, pl. 33, fig. 4

semistriatus, *Anomites* [sic], Sowerby (J.), 1821, *Min. Conch.* 4 : 15

Spirifer Sowerby (J.), 1816, *Min. Conch.* 2 : 41

striatus, *Conchylolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. L[1], pl. 23, figs. 1, 2 *et explic.*

subconicus, *Conchylolithus Anomites*, Martin, 1809, *Petrif. derb.* : Z[2], pl. 47, figs. 6—8

trigonalis, *Conchylolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. Q[2], pl. 36, fig. 1

22. Family-Group-Name Questions : The application dealt with in the present *Opinion* was published in the *Bulletin of Zoological Nomenclature* prior to the establishment of the *Official List of Family-Group Names in Zoology* by the Fourteenth International Congress of Zoology, Copenhagen, 1953. It has been ascertained that an addition, or additions, to the foregoing *Official List* and/or to the corresponding *Official Index of Rejected and Invalid Family-Group Names in Zoology* will need to be made in order to complete the action, which, under the General Directives given to the International Commission by the International Congress of Zoology, is required to be taken in the

present case. This question is now being examined on a separate File to which the Registered Number Z.N.(G.) 128 has been allotted.

23. At the time of the submission of the present application the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

24. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

25. The present *Opinion* shall be known as *Opinion* Four Hundred and Nineteen (419) of the International Commission on Zoological Nomenclature.

DONE in London, this Fourth day of March, Nineteen Hundred and Fifty-six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

APPENDICES

APPENDIX 1.—Request for the substitution of neotypes as the standard of reference for six nominal species belonging to the Class Articulata (Phylum Brachiopoda), the names published for which by Martin (W.) in 1809 have been validated by the International Commission on Zoological Nomenclature, in place of the figures previously proposed for adoption as such standards. By Helen M. Muir-Wood, D.Sc., British Museum (Natural History), London

APPENDIX 2.—Request for the substitution of neotypes in place of previously published figures as the standard of reference for identifying two species of the Class Anthozoa, the names published for which by Martin (W.) in 1809 have been validated by the International Commission on Zoological Nomenclature under its Plenary Powers. By C. J. Stubblefield, Sc.D., F.R.S., Geological Survey and Museum, London.



APPENDIX 1

**REQUEST FOR THE SUBSTITUTION OF NEOTYPES AS
THE STANDARD OF REFERENCE FOR SIX NOMINAL
SPECIES BELONGING TO THE CLASS ARTICULATA
(PHYLUM BRACHIOPODA), THE NAMES PUB-
LISHED FOR WHICH BY MARTIN (W.) IN 1809
HAVE BEEN VALIDATED BY THE INTER-
NATIONAL COMMISSION ON ZOOLOGICAL
NOMENCLATURE, IN PLACE OF THE
FIGURES PREVIOUSLY PROPOSED FOR
ADOPTION AS SUCH STANDARDS**

By HELEN M. MUIR-WOOD, D.Sc.
(*British Museum (Natural History), London*)

The present is in the nature of a supplementary application to the International Commission on Zoological Nomenclature in relation to six of the nominal species of Brachiopoda named by Martin (W.) in his *Petrificata Derbiensia*, for the validation of which by the Commission under its Plenary Powers I submitted a request in 1950 in an application in which also Dr. C. J. Stubblefield (*Geological Survey and Museum, London*) asked for corresponding action in relation to the specific names for two species of Anthozoa published by Martin in the foregoing work (Muir-Wood & Stubblefield, 1951, *Bull. zool. Nomencl.* **6** : 7—17). This application, as I have been notified informally by the Secretary, has now been approved by the Commission but I understand that owing to the need for preparing *Opinions* embodying decisions taken by the Commission at earlier dates in regard to other cases it may be some time before it will be possible to prepare an *Opinion* embodying its decision in the present case.

2. At the time of the submission of the foregoing application the only means open to the Commission for linking in a definitive

manner a given specific name to a given taxonomic unit in cases where specialists in the group concerned were of the opinion that the establishment of such a link was desirable in the interest of nomenclatorial stability was for it to direct that the taxon represented by the nominal species concerned should be that represented by some previously published figure or description. Accordingly, in the present case I asked the Commission to adopt this procedure in the case of seven of the specific names originally published by Martin which I then asked should be validated under the Plenary Powers. Since the submission and approval by the Commission, of the application so submitted, the position has been altered by the decision by the Fourteenth International Congress of Zoology, Copenhagen, 1953, to incorporate provisions in the *Règles* recognising the concept of neotypes. The proposals previously submitted in regard to the Brachiopod names in question amounted in all but name to the designation of neotypes for those species and I feel that in the altered circumstances it would be much more satisfactory that the Ruling to be given by the Commission embodying the decision which it has already taken in this case should provide that the specimens to be taken as the standard of reference for the identification of the species in question should be formally recognised as neotypes of the species concerned. As will be seen, this will involve in some cases minor adjustments in the proposals previously submitted.

3. With the exception of the neotype for *Conchyliolithus Anomites subconicus* Martin, 1809, which is in the National Museum of Wales, Cardiff, all the neotypes discussed in the present application are preserved in the collection of the British Museum (Natural History), London.

4. All the neotypes in the British Museum discussed in the following paragraphs are marked with a capital letter "N" enclosed in a circle. This mark is written in Indian ink on the green spot label of the specimen concerned.

(1) *Conchyliolithus Anomites resupinatus* Martin, 1809

5. The proposal submitted is that the Commission should give official recognition to the neotype "unofficially" designated

for *Conchyliolithus Anomites resupinatus* Martin, 1809, by George (T.N.) & Ponsford (D.A.) in 1938 (*Trans. Leeds geol. Ass.* 5(4) : 288). The specimen so selected is a shell figured by Davidson in 1861 (*Mon. Brit. Foss. Brach.* 2(5)(4) : 130, pl. 29, figs. 1, 1a, 1b) from Bolland now in the British Museum (Natural History). This specimen was refigured by Bond (G.) in 1942 (*Proc. geol. Ass.* 52(4) : 289, pl. 21, figs. A—C). Bond's figures are photographs and are probably more accurate than Davidson's original drawings.

6. The labels accompanying the above neotype are the following :—

- (a) “ *Orthis resupinata* Martin sp., Carboniferous Limestone, Bolland. Davidson's *Mon. Brit. Carb. Brach.* t. 29, f. 1. Gilbertson Coll. Regd. no. B.384 ”

Note : Eleven specimens were originally given the number “ B.384 ”. The specimen figured by Davidson was later re-registered and given the number “ BB.2420 ”.

- (b) The following are the labels on the front and back respectively of the tablet on which the specimen is mounted :—

(i) *On the front* : As in (a) above, except that the word “ Yorkshire ” is added after the word “ Bolland ”, together with the following reference : *Mon. Pal. Soc.* 1861, vol. 2, pl. 29, f. 1, p. 130. BB.2420.

(ii) *At the back* : “ Figd. G. Bond *Proc. Geol. Assoc.* LII, 1942, pl. xxi, figs. A—C, p. 289. Selected as neotype by George & Ponsford, *Trans. Leeds Geol. Assoc.* 5(4) 1938 : 228 ”

7. The following labels are affixed to the specimen :—

- (a) Oval yellow number label BB.2420 (Official Registration Number) ;

- (b) Round green spot indicating a figured specimen with a capital letter " N " written in Indian ink indicating that the specimen is a neotype ;
- (c) The number " 279 " written on the specimen in black ink. (This may possibly be the Gilbertson Coll. number.)

(2) *Conchylolithus Anomites semireticulatus* Martin, 1809

8. In my original application I recommended that *Conchylolithus Anomites semireticulatus* Martin, 1809, should be interpreted by reference to the specimen numbered B.3685 in the British Museum (Natural History) which was illustrated in 1928 as figs. 2a—c on plate 4 (Muir-Wood, 1928, *Mem. geol. Surv. Gt. Brit.* 3(1)). This specimen has no locality and is cut into two halves. Dr. A. G. Cooper (*Smithsonian Institution, Washington, D.C.*), with whom I later discussed this matter, took the view that this specimen was not suitable for selection as a neotype and it is for this reason that I recommend that the other specimen figured in my 1928 paper as an outline only, namely the entire specimen numbered B.45691, should now be accepted as the neotype. This specimen is in every respect more suitable for this purpose than specimen B.3685, being far better preserved and showing the ornament characteristic of the species.

9. The specimen designated above as the neotype for this species which is in the British Museum (Natural History) has the following label : " *Dictyoclostus semireticulatus* (Martin) NEOTYPE, Lower Carboniferous, Bolland, Yorkshire. Figd. Muir-Wood, 1928, *Mem. Geol. Surv. Gt. Brit. Pal.* 3(1) text-fig., 19 : 93, 94. B.45691 (re-registered from B.413) Gilbertson Coll ". (Originally four specimens were registered under the number B.413. As explained above the specimen now designated as the neotype was later re-registered under the number B.45691.) The following labels are affixed to the foregoing specimen :—

- (a) Oval yellow number label B.45691 (Official Registration Number) ;

(b) Round green spot, indicating a figured specimen with a capital letter "N" written in Indian ink indicating that the specimen is a neotype ;

(c) Small oblong white label bearing the number 101a (or 141a) in faded ink.

(3) *Conchyliolithus Anomites crumena* Martin, 1809

10. Davidson's specimens of *Conchyliolithus Anomites crumena* Martin, 1809, were figured in volume 2 of his *Mon. Brit. fossil Brach.* on plate 25, figs. 3—8 and on plate 54, figs. 16—18. Not all the specimens figured by Davidson on his plate 25 are preserved in the British Museum (Natural History). The only specimens now extant are those shown as figs. 4 and 8 on the above plate. The former of these specimens (fig. 4) lacks the umbo, while the latter (fig. 8) is not quite typical. Of the two surviving Davidson specimens shown on plate 54 (figs. 16 and 18), that shown as fig. 18 more closely resembles Martin's figure. This specimen is therefore here designated as the neotype of this species.

11. All the specimens of Davidson's which are still preserved in the British Museum (Natural History) are in a glass-topped box mounted on a wooden tablet, bearing the following labels :—

(a) *On the front* : "*Camarophoria* [*Stenosisma*] *crumena* Martin. Carb. Limestone, Settle, Yorkshire and Wetton, Staffordshire. B.5597. Figd. Mon. Pal. Soc. vol. 2, 1860, pl. 25, figs. 4, 8, p. 113, and 1862, vol. 2, pl. 54, fig. 16, 18. Neotype pl. 54, fig. 18. BB.13025". (All the figured specimens and eight others originally bore the number B.5597. The neotype has now been re-registered under the number BB.13025.)

(b) *On the back* : On the back of the tablet there are the following labels of T. Davidson :—

(i) “ *Camarophoria crumena* Mart. = *Camarophoria schlotheimi* v. Buch. Scar Limestone Carboniferous, Settle, Yorkshire ” [with “ Wetton, Staffordshire ” added in pencil] ;

(ii) “ *Camarophoria crumena* Carb. limestone, Wetton, Staffordshire ”.

12. The following labels are actually affixed to the neotype :—

(a) Oval yellow number label BB.13025 (Official Registration Number) ;

(b) Round green ticket bearing the number 18 in black ink ;

(c) A capital letter “ N ” written in Indian ink indicating that this specimen is a neotype.

(4) *Conchylolithus Anomites trigonalis* Martin, 1809

13. In my original application I suggested that the Commission should give a Ruling that the nominal species *Conchylolithus Anomites trigonalis* Martin, 1809, should be identified by reference to the following figures in vol. 2 of Davidson’s *Mon. Brit. foss. Brach.* :—fig. 25 on plate 5 published in 1858 and figs. 3—4 on pl. 50 published in 1863. Now that it is possible to secure a superior method for determining a species by designating a neotype for it, this recommendation requires re-examination. I have therefore selected as the neotype for this species one of Davidson’s surviving specimens in the British Museum (Natural History) which is also one of the specimens illustrated on the plates of Davidson’s which in my original application I suggested should be taken as the standard of reference for this species.

This is the specimen which was figured by Davidson in 1863 Vol. 2 (5)(5) as figure 4 on his plate 50. The same specimen had previously been figured by him in 1852 in vol. 2(5)(1) of the same work as figure 33 on plate 5.

14. The label affixed to the back of the wooden tablet on which the neotype now designated is mounted reads as follows: “*Spirifer trigonalis*, Carboniferous Limestone from Courland near Dalkeith”. On the front of the tablet there is the following label: “*Spirifer trigonalis* Martin Carb. Limest. Courland [sic], Dalkeith. B.7340. Fig. Mon. Pal. Soc. 1857, vol. 2, pl. 5, fig. 33, p. 29, also pl. 50, fig. 4. Neotype”. (Note: Davidson spelled the name of this place incorrectly as “Courland”, instead of “Cousland”, on the legend of his plate 5.)

15. The following labels are affixed to the specimen:—

- (a) Oval yellow number label B.7340 (Official Registration Number);
- (b) Round green ticket, indicating a figured specimen, with a capital letter “N” in Indian ink indicating that the specimen is a neotype.

(5) *Conchylolithus Anomites subconicus* Martin, 1809

16. In my application regarding this name, I pointed out (: 13) that for many years there was doubt and confusion as to the species to which in 1809 Martin gave the name *Conchylolithus Anomites subconicus*, and that it was not until 1858—1859 that the identity of this species was firmly established by the accurate description and illustration of that species given by Davidson in [1858—1859] (*Mon. Brit. foss. Brach.* 2(5)(1) : 48, pl. 9, fig. 3) and in 1863 (*ibid.* 2(5)(5) : 224, pl. 52, fig. 4). At the same time I noted that North (F.J.) in 1921 (*Quart. J. geol. Soc. Lond.* 76 : 203) selected a neotype but did not give a figure of it. In that

paper North recognised two sub-species for this species : Martin's sub-species, for which he selected the above neotype, thus became the nominate sub-species.

17. Since neotypes were not officially recognised at the time when I drew up my proposals in regard to the present name and there was no published figure of North's neotype, I decided that the best course would be to ask the Commission to define this species by reference to the specimen figured by Davidson in 1859 in vol. 2(5)(2) of his *Mon. Brit. foss. Brach.* as figure 3 on his plate 9. In the altered circumstances now obtaining I consider that the better course would be for the Commission to recognise North's neotype, provided that a figure of it is published at the same time. Direct correspondence on this subject has taken place, at my suggestion, between Mr. Hemming, Secretary to the Commission, and Dr. North, as the result of which it is now possible to attach to the present paper (plate 1, fig. 4) an illustration of the neotype selected by the latter in 1921.

18. The neotype of this species is in the National Museum of Wales at Cardiff. The following particulars regarding the labelling of this neotype (paragraphs 16 and 17 above) have been furnished by Dr. North :—

- (a) The number of the specimen in the National Museum of Wales Register is 19.246 G4 ;
- (b) The accompanying label is as follows : “ *Tylothyris subconica* (Martin) *subconica* (North). Carboniferous Limestone (D2), Attermire, Yorkshire. Specimen referred to in Q.J.G.S. Volume 76 (1920) p. 203 as Holotype of *Tylothyris subconica subconica* ”;
- (c) Dr. North has informed Mr. Hemming that a new label is being prepared for the above specimen, which will include the word “ neotype ” after the words “ *Tylothyris subconica* (Martin) *subconica* (North) ” quoted in (b) above.

(6) *Conchylolithus Anomites striatus* Martin, 1809

19. When I drew up my original proposals, I recommended that the Commission should direct that the species named *Conchylolithus Anomites striatus* by Martin in 1809 should be identified by reference to the specimen illustrated in 1820 by Sowerby (J.) as the upper figure on plate 270 (accidentally numbered as "170") in volume 3 of his *Mineral Conchology*. This specimen is discussed on page 125 of the foregoing volume. The same specimen had previously been described and figured by Sowerby in [1819] (*Trans. linn. Soc. Lond.* **12** (vol. for 1818) : 514, pl. 28, fig. 2). This specimen I have now designated as the neotype of this species.

20. The neotype designated in the preceding paragraph is in the British Museum (Natural History). It is mounted on a tablet with a second specimen, the labels on the front and back of which are as follows :—

(a) *Label on front of tablet* : “ (*Terebratula*) *Spirifer striatus* Martin sp. Carboniferous Limestone 43425. [The number ‘43425’ has been crossed out and replaced by the later number ‘B.61015—16’.] *Trans. Linn. Soc.* 1818 vol. 12, pl. 28, fig. 2, p. 514, *Figd. Min. Conch.* vol. III, pl. 270, p. 125 ”

(b) *Labels on back of tablet* : There are two labels on the back of the tablet, namely :—

(i) a small original label “ *Spirifer striatus* M.C.170 ” ;

(ii) an oval yellow ticket with the number “ 43425 ”, the original number of the specimen when first registered.

21. The following labels are actually affixed to the neotype :—

(a) an oval yellow ticket bearing the number “ B.61016 ” (Official Registration Number) ;

- (b) a round green ticket denoting that this is a figured specimen and marked in Indian ink with a capital letter "N" indicating that it is the neotype of the species.

(7) *Conchylolithus Anomites productus* Martin, 1809

22. In my original application I recommended that the species named *Conchylolithus Anomites productus* by Martin in 1809 should be identified by the entry for it in the *Official List* of a reference to the specimen numbered 32453 in the Geological Survey Museum which was illustrated in 1928 as figs. 1a—d on plate 1 in my paper on this subject (Muir-Wood, 1928, *Mem. geol. Surv. Gt. Brit. (Paleont)* 3(1)). Now, however, that Martin's name *productus* has been validated by the Commission, it would, I think, be more appropriate that the entry to be made in the *Official List* should be related to Martin's original specimen, which is preserved in the White Watson Collection in the British Museum (Natural History), for that specimen may now be regarded as the holotype of this species. The reference suggested in my original application was to a good typical figure of this species and not to an "unofficial" neotype. Martin's specimen has not been re-figured by any later author. It is now accordingly refigured as figs 1 to 3 on plate 1 annexed to the present application.

23. The holotype of *productus* Martin is in two parts, both of which are mounted on a wooden tablet, to which the following labels are affixed :—

- (a) *On the front of the tablet* : " *Anomites [Productus] productus* Martin, Carboniferous, Derbyshire, Fig. Martin, *Petrificata Derbiensia*, 1809, vol. 1, pl. 22, figs. 1—3. White Watson Coll. B.40952 HOLOTYPE " ;
- (b) *On the back of the tablet* : There are two labels on the back of the tablet, namely :—
- (i) " *Anomites productus* Martin, pl. 22, figs. 1—3 [no. 992] " .

- (ii) "Carboniferous Derbyshire, White Watson Coll. (W. Martin) Purch. A. Bingham 1914".

24. In addition, there are the following labels attached to the holotype itself :—

- (a) *Affixed to both portions of the holotype* : Both portions of the holotype bear the following identical labels :—
- (i) an oval yellow number label "B.40952" (Official Registration Number) ;
 - (ii) a round green ticket denoting that this is a figured specimen ;
- (b) *Affixed only to the smaller portion of the holotype* : The following label is attached only to the smaller portion of the holotype : a small oblong stained brown label with the printed number "922".

(8) *Conchylolithus Anomites pugnus* Martin, 1809

25. In the case of the species named *Conchylolithus Anomites pugnus* Martin, 1809 (as in that of *Conchylolithus Anomites productus* Martin, 1809, discussed in the immediately preceding paragraphs) Martin's original specimen is extant and can serve as the holotype of this nominal species now that Martin's name for that species has been validated by the Commission under its Plenary Powers. The only difference between these two cases is that, while Martin's specimen of *productus* has never been re-figured, there is a recent figure of his specimen of *pugnus*. In my original application I asked that the Commission should insert in the entry on the *Official List* relating to the name *pugnus* Martin a note that the species so named be interpreted by reference to Martin's type specimen preserved in the British Museum (Natural History) under the number "B.61451", which was re-figured by myself in 1951 (Muir-Wood, 1931, *Ann. Mag. nat. Hist.* (12) 4 : 117, pl. 4, figs. 3a—c). This recommendation is now re-submitted.

26. The labels accompanying the holotype of this species are the following :—

(a) *On the front of the tablet* :—

Rhynchonella pugnus Martin sp.
Conchylolithus Anomites (pugnus)
 Carboniferous Limestone.—Derbyshire
 Figd. Petrif. Derbiensia, pl. 22, f. 4, 5
 Sowerby Collection B.61451 HOLOTYPE

(b) *On the back of the tablet* :

Figd. Muir-Wood, Ann. Mag. Nat. Hist. (12) IV, no. 38
 Feb. 1951, pl. 4, figs. 3a—d

27. The following labels are affixed to the holotype :—

(a) a yellow number label B.61451 (Official Registration Label)

(b) a green spot indicating that this is a figured specimen.

Recommendations

28. For the reasons set forth in the present application I ask the International Commission on Zoological Nomenclature to approve the following revised proposals in place of those submitted in Point (2) at the close of my original application (Muir-Wood, 1951, *Bull. zool. Nomencl.* 6 : 15—16), namely that, when the eight names specified below are placed on the *Official List of Specific Names in Zoology*, following their validation under the Plenary Powers, the following directions be given as to the manner in which the nominal species concerned be interpreted :—

(a) *Conchylolithus Anomites resupinatus* Martin, 1809, to be interpreted by reference to the neotype designated by George (T.N.) & Ponsford (D.A.) in 1938 (paragraph 5) ;

(b) the under-mentioned nominal species to be interpreted by the neotypes severally designated therefore in the under-mentioned paragraphs of the present application :—

(i) *Conchyliolithus Anomites semireticulatus* Martin, 1809 (paragraph 8) ;

(ii) *Conchyliolithus Anomites crumena* Martin, 1809 (paragraph 10) ;

(iii) *Conchyliolithus Anomites trigonalis* Martin, 1809 (paragraph 13) ;

(iv) *Conchyliolithus Anomites striatus* Martin, 1809 (paragraph 19) ;

(c) *Conchyliolithus Anomites subconicus* Martin, 1809, to be interpreted by reference to the neotype designated by North (F.J.) in 1921 (paragraph 16 and pl. 1, fig. 4 ;

(d) the under-mentioned nominal species to be interpreted by the holotypes thereof now preserved in the British Museum (Natural History) as severally indicated in the paragraphs noted below :—

(i) *Conchyliolithus Anomites productus* Martin, 1809 (paragraph 22 and pl. 1, figs. 1 and 3) ;

(ii) *Conchyliolithus Anomites pugnus* Martin, 1809 (paragraph 25).

EXPLANATION TO PLATE 1**Illustrations of the holotype of "Conchyliolithus Anomites productus" Martin, 1809 and of the neotype of "Conchyliolithus Anomites subconicus" Martin, 1809**

- (a) The holotype of "Conchyliolithus Anomites productus" Martin, 1809

Note: All the illustrations of the above specimen are natural size

Fig. 1 Ventral view of pedicle valve

Fig. 2 Posterior view showing how the pedicle valve has fractured along the diaphragm, which is here seen as a crescentic plate round the visceral disk of the brachial valve

Fig. 3 Posterior view, showing the part of the shell which has split off, namely the visceral disk of the pedicle valve together with the inner layer of the visceral disk of the brachial valve

- (b) The neotype of "Conchyliolithus Anomites subconicus" Martin, 1809

(Note: The illustration of the above specimen is enlarged by $1\frac{1}{2}$ diameters.)

Fig. 4 Dorsal view of brachial valve showing also the flattened interarea of the pedicle valve.



Fig. 1.

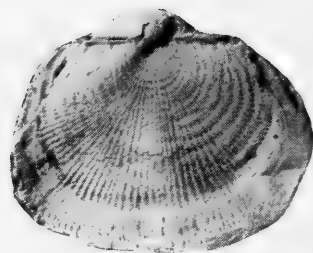


Fig. 3.

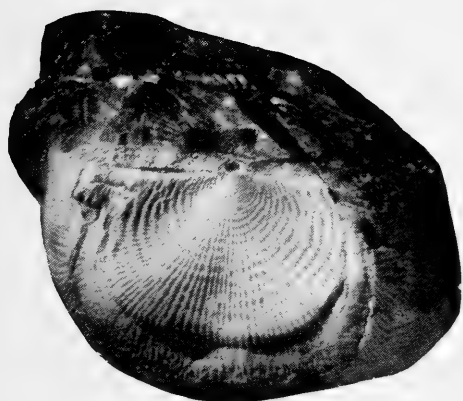


Fig. 2.



Fig. 4.

For the explanation to this plate see opposite.



APPENDIX 2

REQUEST FOR THE SUBSTITUTION OF NEOTYPES IN PLACE OF PREVIOUSLY PUBLISHED FIGURES AS THE STANDARD OF REFERENCE FOR IDENTIFYING TWO SPECIES OF THE CLASS ANTHOZOA, THE NAMES PUBLISHED FOR WHICH BY MARTIN (W.) IN 1809 HAVE BEEN VALIDATED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE UNDER ITS PLENARY POWERS

By C. J. STUBBLEFIELD, Sc.D., F.R.S.
(*Geological Survey and Museum, London*)

I have been giving further consideration to the proposals for the validation by the International Commission on Zoological Nomenclature under its Plenary Powers of the specific names published by Martin (W.) in 1809 in his *Petrificata Derbiensia* for two species of the Class Anthozoa which I submitted in 1950 in a paper in which also Dr. Helen Muir-Wood (*British Museum (Natural History)*) submitted corresponding proposals for the validation of names published by Martin for ten species of Brachiopoda (Muir-Wood & Stubblefield, 1951, *Bull. zool. Nomencl.* 6 : 7—17). It will be recalled that in that paper I asked that the Commission, when validating the names in question, should give directions that the species so named should be identified by reference to certain specified previously published figures. The position in this matter has, in my opinion, been materially altered by the decision by the Fourteenth International Congress of Zoology, Copenhagen, 1953, to insert in the *Règles* provisions recognising neotypes as a category of type specimen. If neotypes had been a recognised category at the time when I submitted my application in the present case, I should certainly have asked the Commission to give official recognition to the

neotypes which some fifteen years earlier had been "unofficially" designated for the two species in question and which form the currently accepted basis for the interpretation of those species. In the altered circumstances now obtaining, I now ask the Commission to adopt this course in place of directing (as in 1950 I asked should be done) that the species concerned should be interpreted by reference to the published figures of those neotypes.

2. The two species concerned are : (1) *Erasmatalithus Madreporites duplicatus* Martin, 1809 ; (2) *Erasmatalithus Madreporites floriformis* Martin, 1809. In each case, I asked that the Commission should use its Plenary Powers to validate the name in question and that, having done so, it should direct that those species be interpreted by reference to the figures published in 1916 in the paper in which Stanley Smith designated the specimens so figured to be the "unofficial" neotypes for those species (Smith (S.), 1916, *Quart. J. geol. Soc. Lond.* **71**). These neotypes which I now ask should be formally recognised by the International Commission are both in the collection of the Sedgwick Museum, Cambridge University. For the information given in the present application regarding the registration and labelling of these neotypes, I am indebted to Mr. A. G. Brighton, Curator of that Museum.

(a) *Erismatalithus Madreporites duplicatus* Martin, 1809

3. The neotype for *Erismatalithus Madreporites duplicatus* Martin, 1809, was designated under the name *Lonsdaleia duplicata duplicata* (Martin) by Stanley Smith on page 238 of the paper published by him in 1916, to which reference has been made in the preceding paragraph. It was illustrated as figure 1 on plate 17 of the same paper. This neotype, as preserved in the Sedgwick Museum, consists of a slide numbered A.2149. The specimen from which this slide was cut is not in the collection of the above Museum.

4. The following are the particulars relating to this neotype given in the Sedgwick Museum Catalogue :—

A.2149. Slide. Fig'd Smith 1916 Q.J.G.S. lxxi for 1915 p. 238 pl. xvii fig. 1 as *Lonsdaleia duplicata duplicata* (Martin). D₂

Carboniferous Limestone ; top of Crick Hill, S.E. of Matlock, Derbyshire. "In the absence of the holotype, this may be accepted as the Neotype . . ." Coll. Prof. T. F. Sibly.

5. The labels on slide A.2149 [neotype of *E.M. duplicatus* Martin, 1809] are as follows :—

Sedgk. Mus.
Cambridge
A.2149

Lonsdaleia
duplicata duplicata (Martin)
D₂ L. Carb.
Top of Crick Hill, Derbyshire.
From Neotype. Coll. T. F. Sibly.

Fig'd S. Smith
Q.J.G.S. Vol. lxxi 1916
pl. xvii fig. 1

Top of Crick Hill, Derbyshire. D₂

(b) *Erismatolithus Madreporites floriformis* Martin, 1809

6. The neotype for *Erismatolithus Madreporites floriformis* Martin, 1809, was designated under the name *Lonsdaleia floriformis floriformis* (Martin) by Stanley Smith on pages 247 and

259 of his paper published in 1916 and was illustrated as figures 1—3 on plate 19 of the same paper. This neotype is divided into five separate portions, all of which are preserved in the Sedgwick Museum.

7. The following are the particulars relating to this neotype given in the Sedgwick Museum Catalogue :—

A.2359a-e. Described M^cCoy 1849 Ann. Mag. Nat. Hist. (2) iii p. 10, and 1854 Contrib. Brit. Palaeont. p. 78 as *Strombodes conaxis* M^cCoy.

Fig'd M^cCoy 1851 Brit. Palaeoz. Foss. Cambridge p. 102 pl. 3B fig. 4 (A.2359a) fig. 4a (A.2359b), fig. 4b as *Strombodes conaxis* M^cCoy. Carboniferous Limestone ; near Bakewell, Derbyshire.

Listed Woods 1891 Cat. Type Foss. Woodw. Mus. Cambridge p. 23 as *Lonsdaleia floriformis* (Martin). Pres. W. Hopkins. Tablet 50.

Slides A.2359f-i cut by S. Smith.

Fig'd Smith 1916 Q.J.G.S. lxxi for 1915 pp. 247, 259 pl. xix fig. 1 (A.2359f), fig. 2 (A.2359g), fig. 3 (A.2359a) as *Lonsdaleia floriformis floriformis* (Martin), and chosen as Neotype of this species.

Listed Hill 1940 Mon. Pal. Soc. Carb. Rugose Corals Scotland p. 155 as neotype of *Lonsdaleia floriformis floriformis* (Martin).

Fig'd Wang 1950 Phil. Trans. Roy. Soc. London B.234 p. 212 pl. v fig. 29 (A.2359f) as *Lonsdaleia floriformis* (Martin).

8. The following are the particulars given on the labels attached to the slides on which the various portions of this neotype are mounted :—

(i) The 5 separate parts of the specimen (A.2359a-e) have each a label stuck on them, e.g. (A.2359f-i) have similar labels.

<p>Sedgk. Mus. Cambridge. A.2359a</p>

; the slides

(ii) A.2359a has stuck on it a label reading “ Figured M^CCoy Pal. Foss. pl. 3B fig. 4 ”.

(iii) A.2359a-e are in trays or boxes stuck down on a blue tablet, on which are stuck five labels reading :—

50

W. Hopkins Coll.

Genus *Lonsdaleia*
 Species *floriformis floriformis* (Martin). Neotype
 Rock Carboniferous Limestone
 Locality Near Bakewell, Derbyshire. A.2359a-e

Figured M^CCoy 1851 Brit. Palaeoz. Foss. Camb. p. 102 pl. 3B figs. 4, 4a-b as *Strombodes conaxis* M^CCoy [Holotype].

Figured S. Smith 1916 Q.J.G.S. lxxi p. 259 pl. xix fig. 3 as *Lonsdaleia floriformis floriformis* (Martin). Neotype.

(iv) The labels on slide A.2359f are five :—

Sedgk. Mus.
 Cambridge.
 A.2359f

Type specimen of *Strombodes conaxis* M^CCoy.

Genus *Lonsdaleia*
 Species *floriformis floriformis* (Martin)
 Rock [D₂]. Carboniferous Limestone
 Locality Derbyshire. A.2359f
 NEOTYPE Sedg. Mus. No. 50

Fig'd S. Smith
 Q.J.G.S. vol. lxxi
 1916 pl. xix fig. 1

Figured Wang 1950
 Phil. Trans. Roy. Soc. Lond.
 B.234 p. 212 pl. 5 fig. 19 as
Lonsdaleia floriformis.

(v) The four labels attached to Slide A.2359g are :—

Figured S. Smith
 Q.J.G.S. Vol. lxxi 1916
 pl. xix, Fig. 2

50. TYPE SPECIMEN of
Strombodes conaxis M^CCoy.

Lonsdaleia
floriformis floriformis (Martin)
 [D₂]. Derbyshire

 NEOTYPE
 A.2359g

Sedgk. Mus.
 Cambridge.
 A.2359g

(vi) The three labels attached to Slide A.2359h are :—

Sedgk. Mus.
 Cambridge.
 A.2359h

Type Specimen
Strombodes conaxis
50 M^cCoy.

Lonsdaleia
floriformis floriformis (Martin)
[D₂] Derbyshire.
NEOTYPE. A.2359h

(vii) The three labels attached to slide A.2359i are :—

Sedgk. Mus.
Cambridge.
A.2359i

50 TYPE specimen of
Strombodes conaxis
M^cCoy

Lonsdaleia
floriformis floriformis (Martin)
[D₂] Derbyshire
NEOTYPE. A.2359i

9. Mr. Brighton has informed me that, when the International Commission's *Opinion* granting official recognition to the neotypes discussed in the present application is published by the International Trust for Zoological Nomenclature, appropriate entries recording the Commission's decisions will be made in the Sedgwick Museum's Catalogue and that labels regarding those decisions will be added to the neotype specimens so recognised.

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

VOLUME 14. Part 4. Pp. 129—168

OPINION 420

Addition to the *Official List of Specific Names in Zoology* of the specific names for eleven species of the Class Brachiopoda and for two species of the Class Cephalopoda originally published by Martin (W.) in 1809 in the nomenclatorially invalid work entitled *Petrificata Derbiensia* and now available as from the first subsequent date on which they were severally published in conditions satisfying the requirements of the *Règles*

LONDON :

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and

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1956

Price Twenty-Six Shillings

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 420

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis Hemming (*London, England*) (27th July 1948)

B. The Members of the Commission

(Arranged in order of precedence by reference to date of election or of most recent re-election as prescribed by the International Congress of Zoology)

- Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(1st January 1947)
- Senor Dr. Angel CABRERA (*La Plata, Argentina*) (27th July 1948)
- Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)
- Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)
- Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)
- Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)
- Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)
- Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)
- Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)
- Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)
- Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (12th August 1953) (*Vice-President*)
- Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)
- Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953) (*President*)
- Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*) (12th August 1953)
- Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)
- Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)
- Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)
- Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)
- Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)
- Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)
- Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)
- Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)
- Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)
- Professor Ernest MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)
- Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

OPINION 420

ADDITION TO THE "OFFICIAL LIST OF SPECIFIC NAMES IN ZOOLOGY" OF THE SPECIFIC NAMES FOR ELEVEN SPECIES OF THE CLASS BRACHIOPODA AND FOR TWO SPECIES OF THE CLASS CEPHALOPODA ORIGINALLY PUBLISHED BY MARTIN (W.) IN 1809 IN THE NOMENCLATORIALLY INVALID WORK ENTITLED "PETRIFICATA DERBIENSIA" AND NOW AVAILABLE AS FROM THE FIRST SUBSEQUENT DATE ON WHICH THEY WERE SEVERALLY PUBLISHED IN CONDITIONS SATISFYING THE REQUIREMENTS OF THE "REGLES"

RULING :—(1) The under-mentioned specific names for species of the Class Brachiopoda¹ originally published by Martin (W.) in 1809 in the nomenclatorially invalid work entitled *Petrificata Derbiensia* are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below with priority from the first author by whom subsequent to 1809 they were severally published in conditions satisfying the requirements of the *Règles* :—

- (a) *aculeatus* Sowerby (J.), 1814, as published in the combination *Productus aculeatus*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (: pl. 3, figs. 3a-d) (Name No. 744);

¹ As has been explained in *Opinion* 419 (footnote 1) Dr. Helen Muir-Wood (the applicant for this portion of the present case) has notified the Office of the International Commission that in her opinion, the term Brachiopoda, should be reserved for use as the name for a Phylum. On this view, the Phylum Brachiopoda consists of two Classes, of which one is the Class Articulata, to which all the species of Brachiopoda discussed in the present *Opinion* should, Dr. Muir-Wood states, be referred.

- (b) *acuminata* Sowerby (J.), 1822, as published in the combination *Terebratulula acuminata*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (pl. 3, figs. 1a-c) (Name No. 745) ;
- (c) *crassus* Fleming, 1828, as published in the combination *Productus crassus*, the species so named to be interpreted by reference to the neotype therefor designated by Muir-Wood (H.M.) in the Appendix to the present *Opinion* (Name No. 746) ;
- (d) *cuspidatus* Sowerby (J.), 1816, as published in the combination *Spirifer cuspidatus*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (: pl. 4, figs. 1a-d) (Name No. 747) ;
- (e) *giganteus* Sowerby (J.), 1822, as published in the combination *Productus giganteus*, the species so named to be interpreted by reference to Martin's specimen re-figured by Sowerby (1822 : pl. 320) which was selected as the lectotype by Muir-Wood (H.M.) in 1951 (Name No. 748) ;
- (f) *glaber* Sowerby (J.), 1820, as published in the combination *Spirifer glaber*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (pl. 3, figs. 2a-c) (Name No. 749) ;
- (g) *lineata* Sowerby (J.), 1822, as published in the combination *Terebratulula ? lineata*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (: pl. 5, figs. 4a-c) (Name No. 750) ;
- (h) *punctatus* Sowerby (J.), 1822, as published in the combination *Productus punctatus*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (: pl. 4, figs. 2a, b) (Name No. 751) ;

- (i) *sacculus* Sowerby (J. de C.), 1824, as published in the combination *Terebratula sacculus*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (: pl. 5, figs. 1a-c) (Name No. 752) ;
- (j) *scabriculus* Sowerby (J.), 1814, as published in the combination *Productus scabriculus*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (: pl. 5, figs. 5a-c) (Name No. 753) ;
- (k) *triangularis* Sowerby (J. de C), 1827, as published in the combination *Spirifer triangularis*, the species so named to be interpreted by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (: pl. 5, figs. 3a-d) (Name No. 754) ;

(2) The under-mentioned specific names for species of the Class Cephalopoda originally published by Martin (W.) in 1809 in the nomenclatorially invalid work entitled *Petrificata Derbiensia* are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below with priority from the first author by whom subsequent to 1809 they were severally published in conditions satisfying the requirements of the *Règles* :—

- (a) *listeri* Sowerby (J.), 1812, as published in the combination *Ammonites listeri*, the species so named to be interpreted by reference to the lectotype selected and figured by Stubblefield (C.J.) in 1951 (: pl. 7, figs. 2a-c) (Name No. 755) ;
- (b) *sphaericus* Sowerby (J.), 1814, as published in the combination *Ammonites sphaericus*, the species so named to be interpreted by reference to Martin's holotype, now preserved in the British Museum (Natural History), figured by Stubblefield (C.J.) in 1951 (: pl. 7, figs. 1a-c) (Name No. 756).

(3) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Buxtonia* Thomas (I.), 1914 (gender : feminine) (type species, by original designation : *Productus scabriculus* Sowerby (J.), 1814, as defined in (1)(j) above) (Class Brachiopoda) (Name No. 1003) ;
- (b) *Echinoconchus* Weller (S.), 1914 (gender : masculine) (type species, by selection by Chao (1927) : *Productus punctatus* Sowerby (J.), 1822 as defined in (1)(h) above) (Class Brachiopoda) (Name No. 1004) ;
- (c) *Gigantoproductus* Prentice, 1950 (gender : masculine) (type species, under Rule (f) in Article 30 through selection as the type species of *Gigantella* Sarycheva, 1928 (a junior homonym of *Gigantella* Ekman, 1905) by Muir-Wood (1930) : *Productus giganteus* Sowerby (J.), 1822, as defined under (1)(e) above) (Class Brachiopoda) (Name No. 1005) ;
- (d) *Pugnax* Hall & Clarke, 1894 (gender : masculine) (type species, by original designation : *Terebratula acuminata* Sowerby (J.), 1822, as defined in (1)(b) above) (Class Brachiopoda) (Name No. 1006) ;
- (e) *Gastrioceras* Hyatt, 1884 (gender : neuter) (type species, by selection by Foord & Crick (1897) : *Ammonites listeri* Sowerby (J.), 1812, as defined in (2)(a) above) (Class Cephalopoda) (Name No. 1007) ;
- (f) *Goniatites* de Haan, 1825 (gender : masculine) (type species, by selection by Miller (S.A.) (1889) : *Ammonites sphaericus* Sowerby (J.), 1814, as defined in (2)(b) above) (Class Cephalopoda) (Name No. 1008).

(4) It is hereby directed that, when in accordance with (1) and (2) above, the under-mentioned specific names are entered on the *Official List of Specific Names in Zoology*, an endorsement be made that the names in question are the specific names of the type species of the genera severally specified below :—

- (a) *acuminata* Sowerby (J.), 1822, as published in the combination *Terebratula acuminata* : specific name of type species of *Pugnax* Hall & Clarke, 1894 ;
- (b) *giganteus* Sowerby (J.), 1822, as published in the combination *Productus giganteus* : specific name of type species of *Gigantoproductus* Prentice, 1950 ;
- (c) *punctatus* Sowerby (J.), 1822, as published in the combination *Productus punctatus* : specific name of type species of *Echinoconchus* Weller (S.), 1914 ;
- (d) *scabriculus* Sowerby (J.), 1814, as published in the combination *Productus scabriculus* : specific name of type species of *Buxtonia* Thomas (I.), 1914 ;
- (e) *sphaericus* Sowerby (J.), 1814, as published in the combination *Ammonites sphaericus* : specific name of type species of *Goniatites* de Haan, 1825.

(5) The under-mentioned specific names, each of which is invalid by reason of having been published in a work (Martin's *Petrificata Derbiensia*) which has been rejected for nomenclatorial purposes (by the Ruling given in *Opinion 231*), are hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Numbers severally specified below :—

- (a) *aculeatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (aculeatus)* (Name No. 317) ;

- (b) *acuminatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (acuminatus)* (Name No. 318) ;
- (c) *attenuatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (attenuatus)* (Name No. 319) ;
- (d) *crassus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (crassus)* (Name No. 320) ;
- (e) *cuspidatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (cuspidatus)* (Name No. 321) ;
- (f) *giganteus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (giganteus)* (Name No. 322) ;
- (g) *glaber* Martin, 1809, as published in the combination *Conchyliolithus Anomites (glaber)* (Name No. 323) ;
- (h) *lineatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (lineatus)* (Name No. 324) ;
- (i) *listeri* Martin, 1809, as published in the combination *Conchyliolithus Nautilites (listeri)* (Name No. 325) ;
- (j) *punctatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (punctatus)* (Name No. 326) ;
- (k) *rotundatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (rotundatus)* (Name No. 327) ;
- (l) *sacculus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (sacculus)* (Name No. 328) ;
- (m) *scabriculus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (scabriculus)* (Name No. 329) ;

- (n) *sphaericus* Martin, 1809, as published in the combination *Conchyliolithus Nautilites (sphaericus)* (Name No. 330) ;
- (o) *triangularis* Martin, 1809, as published in the combination *Conchyliolithus Anomites (triangularis)* (Name No. 331).

(6) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name No. 332 : *martini* Fleming, 1828, as published in the combination *Spirifer martini* (a junior objective synonym of *lineata* Sowerby (J.), 1822, as published in the combination *Terebratula? lineata*).

(7) The under-mentioned generic name is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name No. 446 : *Gigantella* Sarycheva, 1928 (a junior homonym of *Gigantella* Ekman, 1905).

I. THE STATEMENT OF THE CASE

Following the submission to the Commission by Dr. Helen M. Muir-Wood (*British Museum (Natural History), London*) and Dr. C. J. Stubblefield (*Geological Survey and Museum, London*) in 1950 of an application for the use of the Plenary Powers for the purpose of validating certain specific names published in 1809 in the *Petrificata Derbiensia* of William Martin², the same specialists approached the Commission on the question of placing on the *Official List of Specific Names in Zoology* certain names published in the foregoing work as from the first author

The decision of the Commission on the application here referred to has been embodied in *Opinion 419* (Part 3 of the present volume).

subsequent to 1809 on which they were validly published. This led to the submission to the Commission on 9th May 1951 of the following application :—

**Proposed addition to the “ Official List of Specific Names in Zoology ”
of the trivial names of two species of the Class Cephalopoda and of
twelve species of the Class Brachiopoda hitherto attributed to
Martin, 1809, and matters incidental thereto**

By HELEN M. MUIR-WOOD, D.Sc.

(*Department of Geology, British Museum (Natural History), London*)

and

C. J. STUBBLEFIELD, D.Sc., F.R.S.

(*Geological Survey and Museum, London*)

1. The present application for the addition of fourteen nomenclatorially available trivial names to the *Official List of Specific Names in Zoology* follows upon the decision taken by the International Commission on Zoological Nomenclature that names published in 1809 in William Martin's *Petrificata Derbiensia* are not available in zoological nomenclature (1950, *Bull. zool. Nomencl.* 4 : 450—452) and is submitted in response to the desire expressed by the Thirteenth International Congress of Zoology that, when (as in the case of Martin's *Petrificata*) the International Commission rule that a given work is not available for nomenclatorial purposes (1950, *Bull. zool. Nomencl.* 4 : 310) the Commission should determine the future status of any new names published in such a work.

2. When giving its ruling against the availability of Martin's *Petrificata* for nomenclatorial purposes, the International Commission recognised that there might be cases where the dropping of a trivial name published by Martin in that work would lead to confusion and accordingly placed on record its willingness to give sympathetic consideration to applications which might be submitted for the validation of such names. In response to that invitation we have, in a separate application (Z.N.(S.) 461), asked the Commission to use its Plenary Powers to validate ten of Martin's trivial names (two, being the trivial names of species of the Class Anthozoa, eight, of species of the Class Brachiopoda). The present application is concerned with trivial names which it is important should be preserved for use for the species to which they are currently applied, but for which it is not necessary for this purpose to invoke the use of the Commission's Plenary Powers, since, in each case, the name in question, on the first occasion on which it was used subsequent to Martin (1809),

was used in a manner consistent with that in which it had been employed by Martin. In consequence, the strict application of the *Règles* in these cases will not involve any change in the names used for the species concerned; it will merely mean that in future these names will be attributed to some author, other than Martin, and will rank for purposes of priority from some date subsequent to 1809. The required stabilisation of these names, as from the authors and as of the dates attributable to them under a strict application of the *Règles* can thus readily be secured by the Commission placing these names on the *Official List of Specific Trivial Names in Zoology*, and this is what is here recommended should now be done.

3. From the point of view of the International Commission, the present application represents no more than a start in the process of determining the manner in which trivial names hitherto attributed to Martin (1809) should in future be used; the present application is submitted, however, because each of the names with which it is concerned has been the subject of special study in the light of the Commission's decision on the status of names in Martin's *Petrificata*, the names of the two species of the Class Cephalopoda by Stubblefield (1951, *Ann. Mag. nat. Hist.* (12) 4 : 119—124, pl. 7), the names of the twelve species of the Class Brachiopoda by Muir-Wood (1951, *ibid.* (12) 4 : 97—118, pls. 3—6). Full particulars in regard to each of these names are given in the papers referred to above, and, in consequence, it has not been thought necessary in the present application to do more than give those particulars which have an immediate bearing on the application now submitted. Each case is discussed briefly in the following paragraphs.

(1) The trivial name "sphaericus" as published by Martin in 1809 in the combination "Conchylolithus Nautilites (sphaericus)".

4. The trivial name *sphaericus* was published by Martin in 1809 (*Petr. derb.* : sheet sign.D[2], pl. 7, figs. 3—5) in the combination *Conchylolithus Nautilites (sphaericus)*. This trivial name (in the combination *Ammonites sphaericus*) was next used by Sowerby (J.) in 1814 (*Min. Conch.* 1 : 116, pl. 53, figs. 2 (left & right)), a reference being given to Martin's figures. The species hitherto known as *Goniatites sphaericus* (Martin, 1809) will thus in future be known as *Goniatites sphaericus* (Sowerby (J.), 1814); it is proposed, therefore, that the trivial name *sphaericus* Sowerby (J.), 1814, should now be added to the *Official List*. It would be convenient if a reference were there to be made to the fact that this nominal species should be interpreted by reference to the specimen numbered 43871 in the British Museum (Natural History), which is the specimen figured by Sowerby and which Foord & Crick (1897 : 159) and Bisat (1924 : 73) have suggested may well have been Martin's type specimen. This specimen has recently been refigured by Stubblefield (1951 : pl. 7, figs. 1a, 1b, 1c).

5. It must here be noted that the foregoing was one of the two nominal species originally included by de Haan in the genus *Goniatites* de Haan, 1825 (*Specimen phil. inaug. exhib. Mon. Ammonit. Goniatit.* : 159) and was selected as the type species of that genus by Miller (S.A.) in 1889 (*N. Amer. Geol. Pal.* : 438), by whom, however, the species was referred to as *Goniatites sphericus*, its trivial name being misspelt, as shown. It is desirable that the present opportunity should be taken to place the generic name *Goniatites* de Haan, 1825 (with the above species as type species) on the *Official List of Generic Names in Zoology*.

(2) The trivial name "listeri" as published by Martin in 1809 in the combination "Conchyliolithus Nautilites Ammonites (listeri)".

6. The trivial name *listeri* was published by Martin in 1809 (*Petr. derb.* : sheet sign.P[4], pl. 35, fig. 3) in the combination *Conchyliolithus Nautilites Ammonites (listeri)*. This trivial name was next used (in the combination *Ammonites listeri* by Sowerby (J.) in 1812 (*Brit. Min.* 5 : 97, pl. 455); the same species was described and more adequately figured, again under the name *Ammonites listeri*, by Sowerby's son (J. de C. Sowerby) in 1825 (*Min. Conch.* 5 : 163, pl. 501, figs. 1, left and right hand). Both the older and the younger Sowerby referred in their descriptions of this species to *C. Naut. Amm. listeri* Martin. The species figured by the two Sowerbys which is that hitherto known as *Gastrioceras listeri* (Martin, 1809), will thus in future be known as *Gastrioceras listeri* (Sowerby, 1812); it is proposed therefore, that the trivial name *listeri* Sowerby (J.), should now be added to the *Official List*. The original specimen figured by Sowerby (J.) in 1812 cannot now be found, but the specimens figured respectively as the right hand and left hand figures 1 on J. de C. Sowerby's pl. 501 are both now in the British Museum (Natural History). Stubblefield has selected (1951 : 123) the specimen numbered 43909*b* (which is the original of J. de C. Sowerby's left hand figure) as the specimen by which this nominal species should be interpreted, and has refigured this specimen (1951 : pl. 7, figs. 2a, 2b, 2c). It is suggested that a reference to this action should be added against the trivial name *listeri* Sowerby (J.), 1812, when that name is placed on the *Official List*.

7. The foregoing nominal species was the first of those cited by Hyatt when in 1884 (*Proc. Boston. Soc. nat. Hist.* 22 : 327) he published the generic name *Gastrioceras*, and was selected as the type species of that genus in 1884 (*Cat. foss. Cephal. Brit. Mus.* 3 : 327) by Foord & Crick, who referred to this species under the name *Goniatites listeri* Phillips, a method of citation which fulfills the requirements of Rule (g) in Article 30, since Phillips (1836, *Ill. Geol. Yorkshire* 2 : 235) expressly cited *Ammonites listeri* Sowerby in the synonymy which he then gave for this species. It is desirable that the present opportunity should be

taken to place the generic name *Gastrioceras* Hyatt, 1884 (with the above species as type species) on the *Official List of Generic Names in Zoology*.

(3) The trivial name "giganteus" as published by Martin in 1809 in the combination "Conchyliolithus Anomites (giganteus)".

8. The trivial name *giganteus* was published by Martin in 1809 (*Petr. derb.* : sheet sign.G[2], pl. 15, fig. 1) in the combination *Conchyliolithus Anomites (giganteus)*, and in 1793 (*Fig. Descr. Petrifactions Derbyshire* : sheet sign.H[1], pl. 15, fig. 1) as *C. Anomia (giganteus)*. The next occasion on which this trivial name was applied to Martin's species was in 1822 (*Min. Conch.* 4 : 19, pl. 320) when it was figured as *Productus giganteus* by Sowerby (J.), to whom Martin had presented his specimen. This specimen is now preserved in the Sowerby collection at the British Museum (Natural History) under the number BB.936. This species which was formerly known as *Gigantella gigantea* (Martin, 1809) and more recently as *Gigantoproductus giganteus* (Martin, 1809) will in future be known as *Gigantoproductus giganteus* (Sowerby (J.), 1822); it is now proposed that the trivial name *giganteus* Sowerby (J.), 1822, should be added to the *Official List*.

9. The foregoing species is the type species, by subsequent selection by Muir-Wood (1930, *Ann. Mag. nat. Hist.* (10) 5 : 105, 106) of *Gigantella* Sarycheva, 1928 (*Mem. geol. Sci. Res. Inst. Moscow* 1928 (1) : 13); that name is, however, invalid, being a junior homonym of *Gigantella* Ekman, 1905 (*Wiss. Ergeb. schwed. Südp.-Exp.* 5 (No. 4) : 20) and has been replaced by *Gigantoproductus* Prentice, 1950 (*Geol. Mag.* 87(6) : 436). It is proposed that this generic name (with the above species as type species) should now be placed on the *Official List*, the invalid homonym *Gigantella* Sarycheva, 1928, being at the same time placed on the *Official Index*.

(4) The trivial name "crassus" as published by Martin in 1793 in the combination "Conchyliolithus Anomia (crassus)".

10. Martin published the name *Conchyliolithus Anomia (crassus)* in 1793 (*Fig. Descr. Petrifactions Derbyshire* : sheet sign.H[2], pl. 16, figs 2, 3) and 1809 (*Petr. derb.* : sheet sign. G[3], pl. 16, fig. 2) he published a figure of another specimen of the same species under the name *Conchyliolithus Anomites (crassus)*. The next author to refer to Martin's species was Fleming, who in 1828 (*Hist. brit. Anim.* : 379) briefly described it under the name *Productus crassus*. Muir-Wood has recently (1951 : 101, pl. 6, figs. 1a, 1b) selected a specimen from Derbyshire (probably from the Upper Dibunophyllum zone) in the White Watson Collection, now in the British Museum (Natural

History) (specimen number B.40431) as the neotype of this species, as Martin's and Fleming's specimens have not been preserved. This specimen was figured by Muir-Wood (1951 : pl. 6, figs. 1a, 1b). It is proposed that the trivial name *crassus* Fleming, 1828, which now becomes the oldest available trivial name for this species should be placed on the *Official List*.

(5) The trivial name "aculeatus" as published by Martin in 1809 in the combination "Conchylolithus Anomites (aculeatus)".

11. The trivial name *aculeatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. R[4], pl. 37, figs. 9, 10) in the combination *Conchylolithus Anomites (aculeatus)*. This species was next described by Sowerby (J.) in 1814 (*Min. Conch.* 1 : 156, pl. 68, fig. 4) under the name *Productus aculeatus*. Sowerby's specimen is now in the British Museum (Natural History) (specimen No. B.60992); it is virtually certain that this specimen is also the original of Martin's figure. This specimen has recently been selected as the lectotype of this species by Muir-Wood (1951 : 102), by whom it was at the same time refigured (1951 : pl. 3, fig. 3a, b, c). It is proposed that the trivial name *aculeatus* Sowerby (J.), 1814 (as published in the binominal combination *Productus aculeatus*) should now be placed on the *Official List* and that in the entry to be made in that *List* reference should be made to the foregoing lectotype selection.

(6) The trivial name "punctatus" as published by Martin in 1809 in the combination "Conchylolithus Anomites (punctatus)".

12. The trivial name *punctatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. R[3], pl. 37, figs. 6—8) in the combination *Conchylolithus Anomites (punctatus)*. Martin's species was redescribed and figured by Sowerby (J.) in 1822 (*Min. Conch.* 4 : 22, pl. 323) as *Productus punctatus*. This was the first occasion on which, subsequent to Martin 1809, the trivial name *punctatus* was applied to this species and it is accordingly from this usage that this name now takes priority. Four of the specimens figured by Sowerby on his plate 323 are preserved in the Sowerby Collection in the British Museum (Natural History), and of these, the specimen figured by Sowerby as the lower right hand figure (specimen No. B.60966) has been selected by Muir-Wood (1951 : 103) as the lectotype of Sowerby's species and has been refigured (1951 : pl. 4, figs. 2a, b). It is proposed that the trivial name *punctatus* Sowerby (J.), 1822, as published in the combination *Productus punctatus*, should now be placed on the *Official List*, reference being made in the entry in question to the lectotype selection referred to above.

13. The species *Productus punctatus* Sowerby, 1822 (under its earlier, but, as is now known, invalid name *Anomites punctatus* Martin, 1809 (i.e. *Conchylolithus Anomites punctatus*) was selected as the type species

of *Echinoconchus* Weller (S.), 1914 (*Mon. State geol. Surv. Illinois* 1 : 138) by Chao in 1927 (*Palaeont. sinic.* 5(2) : 63). The name *Echinoconchus* Weller is an available name and is accepted as the oldest such name for the genus in question. It is accordingly proposed that this generic name with the above species as type species should now be placed on the *Official List*.

(7) The trivial name “scabriculus” as published by Martin in 1809 in the combination “Conchyliolithus Anomites (scabriculus)”.

14. The trivial name *scabriculus* was published by Martin in 1809 (*Petr. derb.* sheet sign. R[2], pl. 36, fig. 5) in the combination *Conchyliolithus Anomites (scabriculus)*. This species was next described and figured by Sowerby (J.), as *Productus scabriculus*, in 1814 (*Min. Conch.* 1 : 157, pl. 69, fig. 1) and this is the oldest available use of this name subsequent to Martin, 1809. The specimen figured by Sowerby, which is in the Sowerby Collection in the British Museum (Natural History) (specimen No. B.60954) has been selected by Muir-Wood as the lectotype of Sowerby's species and has been refigured (1951 : pl. 5, figs. 5a, b, c). It is proposed that the trivial name *scabriculus* Sowerby (J.), 1814, as published in the combination *Productus scabriculus*, should now be placed on the *Official List*, a note being made in the entry thereon of the lectotype selection referred to above.

15. The above species (under the invalid name given to it by Martin in 1809) is the type species, by original designation, of the genus *Buxtonia* Thomas (I.), 1914 (*Mem. geol. Surv. Unit. Kingd., Pal.* 1(4) : 259) and, as that name is both an available name and also the oldest such name for the genus in question, it is proposed that it should now be placed on the *Official List* with the foregoing species as type species.

(8) The trivial name “acuminatus” as published by Martin in 1809 in the combination “Conchyliolithus Anomites (acuminatus)”.

16. The trivial name *acuminatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. O[4], pl. 32, figs. 7, 8 ; pl. 33, figs. 5, 6). Martin's species was next figured and described as *Terebratula acuminata* by Sowerby (J.), in 1822 (*Min. Conch.* 4 : 23, pl. 324, fig. 1 (two upper figures and middle figure)). The specimen figured by Sowerby as the upper figure is missing but that figured as the middle figure is preserved in the Sowerby Collection in the British Museum (Natural History) (specimen No. B.61235) and has been selected (Muir-Wood, 1951 : 105) as the lectotype of Sowerby's species and refigured (1951 : pl. 3, figs. 1a, b, c). Sowerby's usage of the name *acuminatus* for this species is thus that as from which that name now ranks for the purposes of the Law of Priority. It is proposed that the trivial name *acuminata*

Sowerby (J.), 1822, as published in the combination *Terebratula acuminata*, should now be placed on the *Official List* and that in the entry so made reference should be included to the lectotype selection noted above.

17. The above species (under the name *Anomites acuminatus*) is the type species, by original designation, of the genus *Pugnax* Hall & Clarke, 1894 (*Paleont. New York* 8(2) : 202). The name *Pugnax* is an available name and is accepted by specialists as the oldest such name for the genus in question. It is accordingly proposed that this generic name (with *Terebratula acuminata* Sowerby (J.), 1822, as type species) should now be placed on the *Official List*.

(9) The trivial name "lineatus", as published by Martin in 1809 in the combination "Conchylolithus Anomites (lineatus)".

18. The trivial name *lineatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Q[4], pl. 36, fig. 3). Martin's species was next described and figured by Sowerby (J.), in 1822 (*Min. Conch.* 4 : 39, pl. 335 (referred to as 334 in text), figs. 1, 2) as *Terebratula ? lineata*. The name *lineata*, as from Sowerby, 1822, is the oldest available name for this species ; the specimen figured by Sowerby as figure 1 on his plate 335 is preserved in the Sowerby Collection in the British Museum (Natural History) (specimen No. B.60997) and has been selected by Muir-Wood (1951 : 106) as the lectotype of this species and has been refigured (1951 : pl. 5, figs. 4a, b. c). It is proposed that the trivial name *lineata* Sowerby (J.), 1822, as published in the combination *Terebratula ? lineata*, should now be placed on the *Official List*, a note being made in that list of the foregoing lectotype selection. It is proposed that at the same time there should be added to the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* the trivial name *martini* Fleming, 1828 (*Hist. brit. Anim.* : 376), as published in the combination *Spirifer martini*, which is a junior objective synonym of *lineata* Sowerby, 1822, the name *Spirifer martini* Fleming being no more than an unrequired substitute for the earlier name *Terebratula ? lineata* Sowerby (J.).

(10) The trivial name "triangularis" as published by Martin in 1809 in the combination "Conchylolithus Anomites (triangularis)".

19. The trivial name *triangularis* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Q[3], pl. 36, fig. 2) in the combination *Conchylolithus Anomites (triangularis)*. The specimen so named and figured by Sowerby (J. de C.) in 1827 (*Min. Conch.* 6 : 120, pl. 562, fig. 5 (Martin's specimen), fig. 6 (another syntype)) under the name *Spirifer triangularis*. As from Sowerby, 1827, this is an available name and the oldest such name for this species. From the two

specimens figured by Sowerby, both of which are preserved in the Sowerby Collection in the British Museum (Natural History), Muir-Wood (1951 : 106) selected that figured by Sowerby as figure 5 on his plate 562 (specimen No. B. 61049, Martin's specimen) to be the lectotype of Sowerby's species. This specimen has been refigured by Muir-Wood (1951 : pl. 5, figs. 3a-d). It is proposed that the trivial name *triangularis* Sowerby (J. de C), 1827, as published in the combination *Spirifer triangularis*, should be placed on the *Official List*, a note being added to the entry so made drawing attention to the lectotype selection referred to above.

(11) The trivial name "acutus" as published by Martin in 1809 in the combination "Conchylolithus Anomites (acutus)".

20. The trivial name *acutus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. 2A[1], pl. 49, figs. 15, 16) in the combination *Conchylolithus Anomites (acutus)*. This species was not dealt with by either of the Sowerbys, the species which J. Sowerby figured and described as *Terebratula acuta* (1816, *Min. Conch.* 2 : pl. 150, figs. 1, 2) being a Lias Rhynchonellid, while that referred to under the same name by J. de C. Sowerby in 1825 (*Min. Conch.* 5 : pl. 502, fig. 4) is an Inferior Oolite Rhynchonellid. The next author to be considered is Fleming, 1828 (*Hist. brit. Anim.* : 375) who applied the name *Spirifer acutus* and gave a reference both to Martin's figures of *acutus* and also to the figures given for quite a different species, *Spirifer minimus* Sowerby (J.), 1821 (*Min. Conch.* 4 : pl. 377, fig. 1). M^CCoy (1844 : 132) also united these two species, applying to each the name *Spirifer minimus* Sowerby. The first author to have described and figured Martin's *acutus*, without at the same time confusing that species with some other species, was Davidson who in 1863 (*Mon. brit. foss. Brach.* 2(5) : 224, pl. 52, figs. 16, 17) figured and described this species under the name *Spirifera acuta*. Of Davidson's figures, figure 16 was a copy of Martin's. The specimen figured by Davidson as his figures 17, 17a is in the Davidson Collection in the British Museum (Natural History) (specimen No. B.7391) has been selected by Muir-Wood (1951 : 107) as the specimen by which in future this species should be interpreted and has been refigured (1951 : pl. 5, figs. 2a-c). This selection was made on the assumption that Davidson (1863) was the first author, after Martin (1809), by whom the name *acutus* was effectively applied to Martin's species. More recently, the position in relation to this matter of the name *Spirifer acutus* Fleming, 1828, has been considered further. This is clearly an available name, for it is not a homonym of any previously published name and it was certainly published with an indication. At the present time it is, however, indeterminate from the taxonomic point of view, for until a selection has been made under Article 31, it is not possible to determine whether this name, published by Fleming as the name of a composite species, is applicable to Martin's *Conchylolithus Anomites acutus* (to the figure of which Fleming gave a reference) or

to *Spirifer minimus* Sowerby (J.), 1822 (to which also Fleming gave a reference). In order to clear up this preliminary point Muir-Wood hereby selects, under the procedure prescribed in Article 31 (see 1950, *Bull. zool. Nomencl.* 4 : 74—76), the reference given by Fleming to *Spirifer minimus* Sowerby, 1821, to be the reference by which the hitherto composite species *Spirifer acutus* Fleming, 1828, is in future to be determined. This action makes the nominal species *Spirifer acutus* Fleming, 1828, a junior objective synonym of *Spirifer minimus* Sowerby, 1821 (the two nominal species being based upon the same type specimen). The removal in this way of Fleming's *Spirifer acutus* from consideration as the first name given, after 1809, to Martin's *acutus* makes Davidson's *Spirifera acuta* of 1863 the oldest name for that species, for it is an available name, not being a homonym of *Spirifer acutus* Fleming, since under Article 34, as defined by the Paris Congress (see 1950, *Bull. zool. Nomencl.* 4 : 161—162) the names *Spirifer* and *Spirifera* are not to be regarded as homonyms of one another. Accordingly the trivial name *acuta* Davidson now becomes the oldest available name for Martin's species, and it is proposed therefore that this name should now be placed on the *Official List*. It is further proposed that a reference should be inserted in the entry so to be made, referring to the lectotype selected from the Davidson Collection.

(12) The trivial name "glaber" as published by Martin in 1809 in the combination "Conchyliolithus Anomites (glaber)".

21. The trivial name *glaber* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Z[2], pl. 48, figs. 9, 10) in the combination *Conchyliolithus Anomites (glaber)*. The next author to deal with this species was Sowerby (J.), who in 1820 (*Min. Conch.* 3 : 123, pl. 269 (169 on plate)) described and figured it as *Spirifer glaber*. The upper of the two specimens figured by Sowerby on the foregoing plate, which is in the Sowerby Collection in the British Museum (Natural History) (specimen No. BB.102), has been refigured by Muir-Wood (1951 : pl. 3, figs. 2a-c), by whom it has been selected to be the lectotype of this species. It is proposed that the trivial name *glaber* Sowerby (J.), 1820, as published in the combination *Spirifer glaber*, should now be placed on the *Official List*, a note being at the same time made thereon referring to the above lectotype selection.

22. The species called *Conchyliolithus Anomites (glaber)* by Martin in 1809 (the earliest binominal name for which is, as we have seen, *Spirifer glaber* Sowerby (J.), 1820) is commonly treated as being the type species of the genus *Martinia* McCoy, 1844, but in fact this is not the type species of that genus under the *Règles*. Great confusion would arise if the *Règles* were allowed to operate in the normal way in this case and an application Reference Z.N.(S.) 535 has been made to the International Commission on Zoological Nomenclature to use

its Plenary Powers to give valid force to the position of *Spirifer glaber* Sowerby (J.), as the type species of this genus.

(13) The trivial name “*cuspidatus*” as published by Martin in 1809 in the combination “*Conchylolithus Anomites (cuspidatus)*”.

23. The trivial name *cuspidatus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Y[3], pl. 46, figs. 3, 4 ; pl. 47, fig. 5 (all three figures representing the same specimen) in the combination *Conchylolithus Anomites (cuspidatus)*. Martin's species was next described and figured by Sowerby (J.) in 1816 (*Min. Conch.* 2 : 42, pl. 120, figs. 1—3) in the combination *Spirifer cuspidatus*. Martin's original specimen from Castleton, Derbyshire, is one of the two specimens figured by Sowerby on his plate 120, where it appears as figures 1 and 3. This specimen is in the Sowerby Collection in the British Museum (Natural History) (specimen No. B.61450) ; it has been selected by Muir-Wood (1951 : 112) as the lectotype of *Spirifer cuspidatus* Sowerby (J.), 1816 and has been refigured (1951 : pl. 4, figs. 1a-d). It is proposed that the trivial name *cuspidatus* Sowerby (J.), 1816, as published in the combination *Spirifer cuspidatus*, should now be placed on the *Official List*, a note being made in that list of the foregoing lectotype selection.

(14) The trivial name “*sacculus*” as published by Martin in 1809 in the combination “*Conchylolithus Anomites (sacculus)*”.

24. The trivial name *sacculus* was published by Martin in 1809 (*Petr. derb.* : sheet sign. Y[3], pl. 46, figs. 1, 2) in the combination *Conchylolithus Anomites (sacculus)*. Martin's species was next described and figured by Sowerby (J. de C.) in 1824 (*Min. Conch.* 5 : 65, pl. 446, fig. 1 (three top figs.)) in the combination *Terebratula sacculus*. The originals of Sowerby's first and second figures on plate 446 are preserved in the Sowerby Collection in the British Museum (Natural History) and the second of these specimens (i.e. that represented as the top middle figure on Sowerby's plate 446 (specimen No. B.61653) has been selected by Muir-Wood (1951 : 114) as the lectotype of *Terebratula sacculus* Sowerby (J. de C.), 1824, and has been figured (1951 : pl. 5, figs. 1a-c). It is proposed that the trivial name *sacculus* Sowerby (J. de C.), 1824, as published in the combination *Terebratula sacculus*, should now be placed on the *Official List*, a reference being made in the *List* at the same time to the foregoing lectotype selection.

(15) The trivial names used by Martin in 1809 for the two other species of Brachiopoda then named by that author.

25. In addition to the twelve species of Brachiopoda discussed as items (3) to (14) above, Martin in 1809 described two other species,

which he called respectively *Conchyliolithus Anomites (rotundatus)* (*Petr. derb.* : sheet sign. Z[3], pl. 48, figs. 11, 12) and *Conchyliolithus Anomites (attenuatus)* (*Petr. derb.* : (Addl. Remarks) 14). As regards the first of these species, the position is that Martin's original specimen is lost, that his figure (which appears to represent an immature shell) is not sufficient to permit of the identification of the species figured and that the next occasion on which the trivial name *rotundatus* was used (*Spirifer rotundatus* Sowerby (J. de C.), 1824, *Min. Conch.* 5 : 89, pl. 461, fig. 1 (two views)) it was applied to a species which is certainly not the same as that to which that trivial name had been given by Martin. In view of the doubt as to the identity of Martin's species (Muir-Wood, 1951 : 108), it is not considered desirable to refer the trivial name *rotundatus*, as used by Martin, to any species described by a subsequent author. It is accordingly proposed that in order to dispose of this problem, the trivial name *rotundatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (rotundatus)*, which is an invalid name under the general decision taken by the International Commission on Zoological Nomenclature regarding the status of names in Martin's *Petrificata derbiensia* (see paragraph 1 above), should now be placed on the *Official Index of Rejected and Invalid Names*. The second of the two nominal species referred to above is not figured by Martin and is unidentifiable. It is accordingly proposed that the invalid trivial name *attenuatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (attenuatus)*, should be disposed of by being placed on the *Official Index*.

Recommendations

26. Having now examined the status, under the *Règles*, of the trivial names given by Martin in 1809 to the two species of Goniatites and the twelve species of Brachiopoda there described and, in most cases, figured, we may summarise as follows the recommendations which we submit to the International Commission on Zoological Nomenclature, namely that it should—

- (1) place the under-mentioned trivial names on the *Official List of Specific Names in Zoology* :—

(A) Class Cephalopoda

- (a) *listeri* Sowerby (J.), 1812, as published in the combination *Ammonites listeri*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 7, figs. 2a-c) by Stubblefield, 1951 ;
- (b) *sphaericus* Sowerby (J.), 1814, as published in the combination *Ammonites sphaericus* (holotype figured, pl. 7, figs. 1a-c) by Stubblefield, 1951 ;

(B) Class Brachiopoda

- (c) *aculeatus* Sowerby (J.), 1814, as published in the combination *Productus aculeatus*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 3, figs. 3a-c) by Muir-Wood, 1951 ;
- (d) *acuminata* Sowerby (J.), 1822, as published in the combination *Terebratula acuminata*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 3, figs. 1a-c) by Muir-Wood, 1951 ;
- (e) *acuta* Davidson, 1863, as published in the combination *Spirifera acuta*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 2a-e) by Muir-Wood ;
- (f) *crassus* Fleming, 1828, as published in the combination *Productus crassus*, the species so named to be interpreted by reference to fig. 2 on Martin's (1809) plate 16, cited by Fleming ;
- (g) *cuspidatus* Sowerby (J.), 1816, as published in the combination *Spirifer cuspidatus*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 4, figs. 1a-d) by Muir Wood, 1951 ;
- (h) *giganteus* Sowerby (J.), 1822, as published in the combination *Productus giganteus*, the species so named to be interpreted by reference to the lectotype selected by Muir-Wood, 1951 ;
- (i) *glaber* Sowerby (J.), 1820, as published in the combination *Spirifer glaber*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 3, figs. 2a-c) by Muir-Wood, 1951 ;
- (j) *lineata* Sowerby (J.), 1822, as published in the combination *Terebratula ? lineata*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 4a-c) by Muir-Wood, 1951 ;
- (k) *punctatus* Sowerby (J.), 1922, as published in the combination *Productus punctatus*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 4, figs. 2a, b) by Muir-Wood, 1951 ;
- (l) *sacculus* Sowerby (J. de C.), 1824, as published in the combination *Terebratula sacculus*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 1a-c) by Muir-Wood, 1951 ;
- (m) *scabriculus* Sowerby (J.), 1814, as published in the combination *Productus scabriculus*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 5a-c) by Muir-Wood, 1951 ;

- (n) *triangularis* Sowerby (J. de C.), 1827, as published in the combination *Spirifer triangularis*, the species so named to be interpreted by reference to the lectotype selected and figured (pl. 5, figs. 3a-d) by Muir-Wood, 1951 ;

(2) place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—

(A) Class Cephalopoda

- (a) *Gastrioceras* Hyatt, 1884 (type species, by selection by Foord & Crick (1897) : *Ammonites listeri* Sowerby (J.), 1812, as defined in (1)(a) above) ;
- (b) *Goniatites* de Haan, 1825 (type species, by selection by Miller (1889) : *Ammonites sphaericus* Sowerby (J.), 1814, as defined in (1)(b) above) ;

(B) Class Brachiopoda

- (c) *Buxtonia* Thomas (I.), 1914 (type species, by original designation : *Productus scabriculus* Sowerby (J.), 1814, as defined in (1)(m) above) ;
- (d) *Echinoconchus* Weller (S.), 1914 (type species, by subsequent selection by Chao (1927) : *Productus punctatus* Sowerby (J.), 1822, as defined in (1)(k) above) ;
- (e) *Gigantoproductus* Prentice, 1950 (nom. nov. pro *Gigantella* Sarycheva, 1928, a junior homonym of *Gigantella* Ekman, 1905) (type species, by subsequent selection by Muir-Wood (1930) : *Productus giganteus* Sowerby (J.), 1822, as defined in (1)(h) above) ;
- (f) *Pugnax* Hall & Clarke, 1894 (type species, by original designation : *Terebratula acuminata* Sowerby (J.), 1822, as defined in (1)(d) above) ;

(3) to place the under-mentioned trivial names on the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* :—

- (a) *aculeatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (aculeatus)* ;
- (b) *acuminatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (acuminatus)* ;
- (c) *acutus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (acutus)* ;
- (d) *attenuatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (attenuatus)* ;

- (e) *crassus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (crassus)* ;
 - (f) *cuspidatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (cuspidatus)* ;
 - (g) *giganteus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (giganteus)* ;
 - (h) *glaber* Martin, 1809, as published in the combination *Conchyliolithus Anomites (glaber)* ;
 - (i) *lineatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (lineatus)* ;
 - (j) *listeri* Martin, 1809, as published in the combination *Conchyliolithus Nautilites Ammonites (listeri)* ;
 - (k) *martini* Fleming, 1828, as published in the combination *Spirifer martini* ;
 - (l) *punctatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (punctatus)* ;
 - (m) *rotundatus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (rotundatus)* ;
 - (n) *sacculus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (sacculus)* ;
 - (o) *scabriculus* Martin, 1809, as published in the combination *Conchyliolithus Anomites (scabriculus)* ;
 - (p) *sphaericus* Martin, 1809, as published in the combination *Conchyliolithus Nautilites (sphaericus)* ;
 - (q) *triangularis* Martin, 1809, as published in the combination *Conchyliolithus Anomites (triangularis)* ;
- (4) to place the generic name *Gigantella* Sarycheva, 1928 (a junior homonym of *Gigantella* Ekman, 1905) on the *Official Index of Rejected and Invalid Generic Names in Zoology*.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of the application by Dr. Muir-Wood and Dr. Stubblefield the question of the addition to the *Official List of Specific Names in*

Zoology of certain specific names originally published in 1809 in Martin's *Petrificata Derbiensia* was allotted the Registered Number Z.N.(S.) 534.

3. Publication of the present application : The present application was sent to the printer on 27th May 1951 and was published on 28th September of that year in Part 1 of volume 6 of the *Bulletin of Zoological Nomenclature* (Muir-Wood & Stubblefield, 1951, *Bull. zool. Nomencl.* **6** : 18—30).

4. Comments received : The publication of the present application elicited two comments. Both of these were favourable. No objection was received from any source, save that the first of the specialists to submit a comment raised an objection to the proposal submitted in relation to the third of the Brachiopod names included in Dr. Muir-Wood's list. This was the name *acutus* originally published by Martin in 1809 as *Conchylolithus Anomites (acutus)*. The communications so received are reproduced in the following paragraphs.

5. Support received from Dr. Herta Schmidt (Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a. M., Germany) : On 1st November 1951 Dr. Herta Schmidt (*Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a. M.*) submitted a note in which she supported all the recommendations submitted except that in regard to the name *acutus* referred to in paragraph 4 above. As explained in paragraph 9 below, the proposal relating to the foregoing name was later withdrawn from the present proposal for further consideration. Dr. Schmidt's comment was published in full in Part 7 of volume 6 of the *Bulletin of Zoological Nomenclature* (Schmidt (H.), 1952, *Bull. zool. Nomencl.* **6** : 224). The following is the introductory sentence of Dr. Schmidt's communication, in which, subject to the exception noted above, she intimated her support for the recommendations submitted in this case : " Soweit die Vorschläge Brachiopoden [i.e. the Brachiopod names dealt with in the application reproduced in the first paragraph of the present

Opinion] betreffen, stimme ich ihnen zu mit Ausnahme von (B)(e), *Spirifera acuta* Davidson, 1863³, betreffend ”.

6. Support received from the Joint Committee on Zoological Nomenclature for Paleontology in America : On 9th April 1952 there was received in the Office of the Commission a large number of letters commenting on various applications previously published in the *Bulletin of Zoological Nomenclature* from Professor G. Winston Sinclair (then of the *University of Michigan, Ann Arbor, Michigan, U.S.A.*), Chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America. Included among these was the following letter, dated 18th February 1952, reporting that by a majority of nine votes to one vote the Joint Committee had decided to give its support to the present application :—

The Joint Committee on Zoological Nomenclature for Paleontology in America has considered this subject, and I wish to inform you that, being polled, they voted : To support the petition (nine) : (1) Katherine V. W. Palmer ; (2) A. Myra Keen ; (3) Siemon W. Muller ; (4) J. Marvin Weller ; (5) J. Winston Sinclair ; (6) Bryan Patterson ; (7) Bobb Schaeffer ; (8) R. C. Moore ; (9) John B. Reeside, Jr. To oppose the petition (one) : Don L. Frizzell.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. Issue of Voting Paper V.P.(53)5 : On 2nd January 1953, a Voting Paper (V.P.(53)5) was issued in which the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the addition to the *Official List of Specific Trivial Names in Zoology* of certain trivial names originally published by Martin in 1809 and allied matters as

* The portion of Dr. Schmidt's comment on the case of the name *Spirifera acuta* Davidson, 1863, is not reproduced here, since, as explained above, the case of that name has been withdrawn from the purview of the present case. The comment on the foregoing name furnished by Dr. Schmidt will be reproduced in the *Opinion* later to be rendered by the Commission in regard to that name.

set out in Points (1) to (4) on pages 27 to 30 in volume 6 of the *Bulletin of Zoological Nomenclature* ” [i.e. in the Points numbered as above in paragraph 26 of the application reproduced in the first paragraph of the present *Opinion*].

8. The Prescribed Voting Period for Voting Paper V.P.(53)5 : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd April 1953.

9. Withdrawal from the scope of Voting Paper V.P.(53)5 of the proposal there submitted in relation to the specific name “ acutus ” Davidson, 1863, as published in the combination “ Spirifera acuta ” : On 3rd April 1953 Mr. Hemming, as Secretary, placed the following Minute on the Commission’s File Z.N.(S.) 534, withdrawing from the scope of Voting Paper V.P.(53)5 the proposal there submitted in relation to the specific name *acuta* Davidson, 1863, as published in the combination *Spirifera acuta* :—

The specific name “ acutus ” as published by Davidson in 1863 in the combination “ *Spirifera acuta* ” : withdrawal for further consideration of the proposals submitted with Voting Paper V.P.(53)5

MINUTE by FRANCIS HEMMING, C.M.G., C.B.E.,

(*Secretary to the International Commission on Zoological Nomenclature*)

In a statement dated 1st November 1951 Dr. Herta Schmidt (*Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a. M.*) communicated to the Office of the Commission a statement in which she objected to the proposal submitted in relation to the specific name *acutus* Davidson, 1863, as published in the combination *Spirifera acuta*. The objection so submitted was based, in part, on an interpretation of Article 19 relating to the emendation of names and the status of certain classes of emendations which will be the subject of consideration at Copenhagen later this year first by the International Commission on Zoological Nomenclature and later by the Fourteenth International Congress of Zoology. In these circumstances, I consider that a decision on the present case should be held over until after the Copenhagen Congress when it will be possible to re-examine the issues involved in the light of the decisions taken by that Congress.

2. For the reasons set forth above I, as Secretary to the International Commission on Zoological Nomenclature, hereby withdraw the proposal regarding the foregoing name from the scope of Voting Paper V.P.(53)5 and direct that the position as regards this name be reviewed⁴ in due course in the light of any decisions regarding the provisions of the *Règles* by the forthcoming Fourteenth International Congress of Zoology which may have a bearing on the issues involved in this case.

10. Particulars of the Voting on Voting Paper V.P.(53)5 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(53)5, less the proposal relating to the specific name *acuta* Davidson, 1863, as published in the combination *Spirifera acuta*, removed from the purview of that vote by the Direction given in the Secretary's Minute of 3rd April 1953 reproduced in paragraph 9 of the present *Opinion* was as follows:—

(a) *Affirmative Votes had been given by the following fourteen (14) Commissioners (arranged in the order in which Votes were received) :*

Lemche ; Hering ; Bradley (J.C.) ; Dymond ; Esaki ;
Vokes ; Bonnet ; Riley ; do Amaral ; Hankó ; Stoll ;
Cabrera ; Hemming ; Boschma ;

(b) *On Leave of Absence, one (1) :*

Mertens ;

(c) *Negative Votes :*

None ;

⁴ The review so prescribed was later carried out on a new File bearing the Number Z.N.(S.) 848. The Secretary's Report on this case was published on 28th February 1955 in Part 4 of volume 11 of the *Bulletin of Zoological Nomenclature* (Hemming, 1955, *Bull. zool. Nomencl.* **11** : 124—131).

(d) *Voting Papers not returned, two (2) :*

Jaczewski ; Pearson.

11. Declaration of Result of Vote on Voting Paper V.P.(53)5 : On 3rd April 1953, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(53)5, signed a Certificate that the Votes cast were as set out in paragraph 10 above and declaring that the proposal submitted in the foregoing Voting Paper, less the proposal withdrawn therefrom by the Direction issued by the Secretary in a Minute signed earlier on the same day (paragraph 9 above) has been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

12. Supplementary application submitted in 1954 by Dr. Helen Muir-Wood : In April 1954 Dr. Helen Muir-Wood (the original author of the Brachiopod section of the present application) notified the Office of the Commission that, consequent upon the decision of the Fourteenth International Congress of Zoology, Copenhagen, 1953, to insert in the *Règles* provisions recognising neotypes as a category of type specimen, she was of the opinion that in the one species included in her application for which it was not possible to select a lectotype it would be more satisfactory if the Commission were to direct that the species in question should be interpreted by reference to a neotype rather than, as recommended in her original application, by reference to a previously published figure. The nominal species concerned was *Productus crassus* Fleming, 1828. Already in 1953 prior to the meeting of the Copenhagen Congress Dr. Muir-Wood had published a paper in which she had designated an "unofficial" neotype for the above species. In its final form Dr. Muir-Wood's supplementary application was submitted to the Office of the Commission on 20th July 1955. The document so submitted is attached to the present *Opinion* as an Appendix.

13. Submission to the Commission in October 1955 of proposals based upon the supplementary application for the recognition of a neotype for the nominal species "Productus crassus" Fleming, 1828, received from Dr. Muir-Wood : On 12th October 1955 Mr. Hemming, as Secretary, submitted to the Commission a paper in which he set forth a proposal designed to give effect to Dr. Muir-Wood's supplementary application. The first two paragraphs of Mr. Hemming's paper contained an historical account of the circumstances which led up to the submission of Dr. Muir-Wood's supplementary application. This is not reproduced here because the circumstances in question have already been described in much greater detail in the earlier portions of the present *Opinion*. The remainder of Mr. Hemming's paper was as follows :—

Proposal supplementary to that approved by the Commission in relation to the name "Productus crassus" Fleming, 1828 (Class Brachiopoda) submitted by Dr. Helen Muir-Wood

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

.

3. In the case of the nominal species *Productus crassus* Fleming, 1828, with which the present paper is concerned, the proposal originally submitted (*Bull. zool. Nomencl.* 6 : 21, 28 (Point (f))) was that the Commission should give a Ruling that this nominal species should be interpreted by reference to figure 2 on Martin's (1809) plate 16, which was cited by Fleming when dealing with this species. That specimen is not preserved in the British Museum Collection or elsewhere and is therefore not available for designation as a neotype. For the purposes of such a designation some other specimen must therefore be selected. In view of the fact that most of Martin's specimens were originally obtained from the White Watson collection, Dr. Muir-Wood judged that one of the specimens of the above species preserved in that collection in the British Museum (Natural History) would be the most suitable for designation as the neotype of *Productus crassus*. Accordingly, before the Copenhagen (1953) Congress she selected from

that collection a specimen numbered B.40431 and designated it as an "unofficial neotype" (1951, *Ann. Mag. nat. Hist.* (12) 4 : 101, pl. 6, figs. 1a, b). This is the specimen which in the supplementary application now received Dr. Muir-Wood asks that the Commission, when giving its Ruling on her original application, should direct should be the standard for the interpretation of the nominal species *Productus crassus* Fleming, 1828. Dr. Muir-Wood has furnished full particulars of the labels attached to, or otherwise associated with, the foregoing specimen.

4. The proposal by Dr. Muir-Wood that the at present unpromulgated decision taken by the vote on Voting Paper V.P.(53)5, namely that the nominal species *Productus crassus* Fleming, 1828 (Class Brachiopoda) be interpreted by reference to a specified previously-published figure be replaced by a decision that the foregoing nominal species be interpreted by reference to the neotype therefor designated by Dr. Muir-Wood, is hereby submitted to the Commission for consideration.

14. Issue of Voting Paper V.P.(O.M.)(55)34 : On 12th October 1955 a Voting Paper (V.P.(O.M.)(55)34) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal submitted by Dr. H. M. Muir-Wood set out in paragraph 4 of the paper bearing the number Z.N.(S.) 534 submitted by the Secretary simultaneously with the present Voting Paper [i.e. in paragraph 4 of the paper, an extract from which has been reproduced in paragraph 13 of the present *Opinion*], namely that in place of the at present unpromulgated decision taken by the vote on Voting Paper V.P.(53)5 that the nominal species *Productus crassus* Fleming, 1828 (Class Brachiopoda) be interpreted by reference to a specified previously published figure (a decision taken prior to the incorporation into the *Règles* of provisions recognising neotypes as a category of type specimen) a Ruling be given that the above nominal species be interpreted by reference to the neotype designated therefor by Dr. Muir-Wood as specified in the foregoing paper".

15. The Prescribed Voting Period for Voting Paper V.P.(O.M.)(55)34 : As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 12th November 1955.

16. Particulars of the Voting on Voting Paper V.P.(O.M.)(55)34 :
 At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(55)34 was as follows⁵ :—

(a) *Affirmative Votes had been given by the following twenty-two (22) Commissioners (arranged in the order in which Votes were received) :*

Hering ; Lemche ; Vokes ; Stoll ; Esaki ; Boschma ;
 Riley ; Miller ; Bradley (J.C.) ; Prantl ; Mayr ;
 Jaczewski ; Tortonese ; do Amaral ; Dymond ;
 Hemming ; Bonnet ; Mertens ; Cabrera ; Key ;
 Kühnelt ; Hankó ;

(b) *Negative Votes, two (2) :*

Holthuis ; Sylvester-Bradley ;

(c) *On Leave of Absence, one (1) :*

Bodenheimer ;

(d) *Voting Papers not returned :*

None.

⁵ In the period between the taking of the Vote on Voting Paper V.P.(53)5 and of that on Voting Paper V.P.(O.M.)(55)34, Commissioner Joseph Pearson had retired from the Membership of the Commission. In the same period the following nine zoologists have been elected to be Commissioners :—

Mr. P. C. Sylvester-Bradley (*Sheffield Universtiy, Sheffield, England*) (12th August 1953)

Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)

Dr. K. H. L. Key (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. Miller (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand Prantl (*Národní Museum v. Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm Kühnelt (*Zoologisches Institut, Der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. Bodenheimer (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst Mayr (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico Tortonese (*Museo di Storia Naturale "G. Doria" Genova, Italy*) (16th December 1954)

17. Declaration of Result of Vote on Voting Paper V.P.(O.M). (55)34 : On 14th November 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(55)34, signed a Certificate that the Votes cast were as set out in paragraph 16 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

18. Preparation of the Ruling given in the present " Opinion " : On 5th March 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(53)5, as amended in respect of one item by the Vote taken on Voting Paper V.P.(O.M.)(55)34.

19. Original References : The following are the original references for the names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

aculeatus, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. R [4], pl. 37, figs. 9, 10

aculeatus, *Productus*, Sowerby (J.), 1814, *Min. Conch.* 1 : 156, pl. 68, fig. 4

acuminatus, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. O [4], pl. 32, figs. 7, 8 ; pl. 33, figs. 5, 6

acuminata, *Terebratula*, Sowerby (J.), 1822, *Min. Conch.* 4 : 23, pl. 324, fig. 1 (two upper figs. and middle fig.)

attenuatus, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : (Addit. Remarks) 14

Buxtonia Thomas (I.), 1914, *Mem. geol. Surv. Unit. Kingd.*, Pal. 1(4) : 259

crassus, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. G [3], pl. 16, fig. 2

crassus, *Productus*, Fleming, 1828, *Hist. brit. Anim.* : 379

- cuspidatus*, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. Y [3], pl. 46, figs. 3, 4 ; pl. 47, fig. 5
- cuspidatus*, *Spirifer*, Sowerby (J.), 1816, *Min. Conch.* **2** : 42, pl. 120, figs. 1—3
- Echinoconchus* Weller (S.), 1914, *Mon. State geol. Surv. Illinois* **1** : 138
- Gastrioceras* Hyatt, 1884, *Proc. Boston Soc. nat. Hist.* **22** : 327
- Gigantella* Sarycheva, 1928, *Mem. geol. Sci. Res. Inst. Moscow* **1928**(1) : 13
- giganteus*, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. G [2], pl. 15, fig. 1
- giganteus*, *Productus*, Sowerby (J.), 1822, *Min. Conch.* **4** : 19, pl. 320
- Gigantoproductus* Prentice, 1950, *Geol. Mag.* **87**(6) : 436
- glaber*, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. Z [2], pl. 48, figs. 9, 10
- glaber*, *Spirifer*, Sowerby (J.), 1820, *Min. Conch.* **3** : 123, pl. 269 [by mistake as 169 on legend]
- Goniatites* de Haan, 1825, *Specimen phil. inaug. exhib. Mon. Ammonit. Goniatit.* : 159
- lineatus*, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. Q [4], pl. 36, fig. 3
- lineata*, *Terebratula* ?, Sowerby (J.), 1822, *Min. Conch.* **4** : 39, pl. 335 [referred to as pl. 334 in text], figs. 1, 2
- listeri*, *Conchyliolithus Nautilites Ammonites*, Martin, 1809, *Petrif. derb.* : P [4], pl. 35, fig. 3
- listeri*, *Ammonites*, Sowerby (J.), 1812, *Brit. Min.* **5** : 97, pl. 455
- martini*, *Spirifer*, Fleming, 1828, *Hist. brit. Anim.* : 376
- punctatus*, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. R [3], pl. 37, figs. 6—8

punctatus, *Productus*, Sowerby (J.), 1822, *Min. Conch.* **4** : 22, pl. 323

Pugnax Hall & Clarke, 1894, *Palaeont. New York* **8**(2) : 202

rotundatus, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. Z [3], pl. 48, figs. 11, 12

sacculus, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign Y [3], pl. 46, figs. 1, 2

sacculus, *Terebratula*, Sowerby (J. de C.), 1824, *Min. Conch.* **5** : 65, pl. 446, fig. 1 (three top figs.)

scabriculus, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. R [2], pl. 36, fig. 5

scabriculus, *Productus*, Sowerby (J.), 1814, *Min. Conch.* **1** : 157, pl. 69, fig. 1

sphaericus, *Conchyliolithus Nautilites*, Martin, 1809, *Petrif. derb.* : sign. D [2], pl. 7, figs. 3—5

sphaericus, *Ammonites*, Sowerby (J.), 1814, *Min. Conch.* **1** : 116, pl. 53, figs. 2 (left & right)

triangularis, *Conchyliolithus Anomites*, Martin, 1809, *Petrif. derb.* : sign. Q [3], pl. 36, fig. 2

triangularis, *Spirifer*, Sowerby (J. de C.), 1827, *Min. Conch.* **6** : 120, pl. 562, figs. 5, 6

20. The following are the references for the selection of type species for the under-mentioned nominal genera specified in the Ruling given in the present *Opinion* :—

For *Echinoconchus* Weller (S.), 1914 : Chao, 1927, *Palaeont. sinic.* **5**(2) : 63

For *Gigantella* Sarycheva, 1928 : Muir-Wood, 1930, *Ann. Mag. nat. Hist.* (10) **5** : 105, 106

For *Gastrioceras* Hyatt, 1884 : Foord & Crick, 1884, *Cat. foss. Cephal. Brit. Mus.* 3 : 327

For *Goniatites* de Haan, 1825 : Miller (S.A.), 1889, *N. Amer. Geol. Pal.* : 438

21. Family-Group Name Problems : The application dealt with in the present *Opinion* was published in the *Bulletin of Zoological Nomenclature* prior to the establishment of the *Official List of Family-Group Names in Zoology* by the Fourteenth International Congress of Zoology, Copenhagen, 1953. It has been ascertained that an addition or additions to the foregoing *Official List* and/or to the corresponding *Official Index of Rejected and Invalid Family-Group Names in Zoology* will need to be made in order to complete the action which under the General Directives given to the International Commission by the International Congress of Zoology, is required to be taken in the present case. This question is now being examined on a separate File to which the Registered Number Z.N.(G.) 128 has been allotted.

22. At the time of the submission of the present application the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

23. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

24. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty (420) of the International Commission on Zoological Nomenclature.

DONE in London, this Fifth day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

APPENDIX

Request for the substitution of a reference to a neotype for a reference to a specified previously published figure as the standard of reference for the interpretation of the nominal species "Productus crassus" Fleming, 1828 (Phylum Brachiopoda, Class Articulata), a species originally named "Conchylolithus Anomites crassus" by Martin (W.) in 1809 in the work entitled "Petrificata Derbiensia" since rejected for nomenclatorial purposes

By HELEN M. MUIR-WOOD, D.Sc.

(*British Museum (Natural History), London*)

The present paper is in the nature of a supplement to the proposal in relation to one of the twelve specific names in the Phylum Brachiopoda (Class Articulata) originally published by Martin (W.) in 1809 in the work entitled *Petrificata Derbiensia* which, in consequence of the rejection of the foregoing work for nomenclatorial purposes by the Commission in its *Opinion* 231, I then asked should be placed on the *Official List of Specific Names in Zoology* as from the first author subsequent to Martin by whom the names in question were validly published. The foregoing application was a joint application with Dr. C. J. Stubblefield (*Geological Survey and Museum, London*) who submitted a corresponding request in respect of the names of two species of the Class Cephalopoda which also had been originally published by Martin in the *Petrificata Derbiensia* (Muir-Wood & Stubblefield, 1951, *Bull. zool. Nomencl.* 6 : 18—30).

(2) In the foregoing application I asked that, when recognising the name *crassus* Fleming, 1828, as published in the combination *Productus crassus*, as the oldest nomenclatorially available name

for the species originally named *Conchylolithus Anomites crassus* by Martin in 1809, the International Commission should give a Ruling that the species so named be interpreted by reference to figure 2 on plate 16 of Martin's *Petrificata Derbiensia* of 1809. The situation has since undergone a material change as the result of the decision by the Fourteenth International Congress of Zoology, Copenhagen, 1953, to insert in the *Règles* a provision recognising neotypes as a category of type specimen. In the light of the foregoing decision by the Copenhagen Congress I am asking the Commission to substitute neotypes for previously published figures as the standard of reference for certain species of Brachiopoda, the names for which I have asked should be validated under the Plenary Powers as from Martin, 1809. In the present case I am asking for the adoption of a corresponding course in regard to the nominal species cited above.

(3) The specimen figured by Martin as figure 2 on plate 16 of his *Petrificata Derbiensia* of 1809 which in my original application I asked should be taken as the standard of reference for the nominal species *Productus crassus* Fleming, 1828, is no longer extant, and accordingly, although the foregoing figure of Martin's is otherwise satisfactory, it would not form a suitable basis for the designation of a neotype. For this reason in 1951 (*Ann. Mag. nat. Hist.* (12) 4 : 101, 118, pl. 6, figs. 1a-b) I selected as the "unofficial" neotype of Fleming's *Productus crassus* a specimen in the White Watson collection in the British Museum (Natural History) which resembles Martin's figure in proportions and ornament and which was obtained in Derbyshire (probably from the Upper Dibunophyllum zone), whence Martin's figured specimens were mostly obtained. It is this specimen which I now ask the International Commission formally to recognise as the neotype of *Productus crassus* Fleming, 1828.

(4) The original label of the neotype of *Productus crassus* Fleming, 1828, is lost, a small portion only adhering to the back of the specimen. The entry in the register which may have been copied from the original label (or of which the original label itself may have been a copy) reads as follows: "*Productus*, Carboniferous, Derbyshire, White Watson Coll. (W. Martin), purch. A. Bingham 1914". The same register gives for this specimen the number B.40431.

(5) The following is the label accompanying the neotype :—

Gigantoproductus giganteus var. *crassus* (J. Fleming)

Carboniferous Limestone, Derbyshire.

White Watson Coll. B.40431

Figd. Muir-Wood, Ann. Mag. Nat. Hist. (12) 4, no. 38, 1951 : 101,
pl. 6, figs. 1a, b.

Ref. Muir-Wood and Stubblefield, Bull. Zool. Nomencl. 6(1) 1951 : 21

Selected as neotype by H. M. Muir-Wood, 1951.

(6) The following labels are affixed to the neotype :—

(a) an oval yellow number label B.40431 (Official Registration Number) ;

(b) a round green ticket on which is written in Indian ink a capital letter " N " enclosed in a circle, the green ticket denoting that the specimen has been figured and the letter " N " in a circle denoting that the specimen has been selected as the neotype.

(7) For the reasons set forth above, I now ask that in place of the action recommended in paragraph 26(1)(f) in the application which I originally submitted (1951, *Bull. zool. Nomencl.* 6 : 28) the International Commission, when placing on the *Official List of Specific Names in Zoology* the specific name *crassus* Fleming (J.), 1828 (*Hist. brit. Anim.* : 379), as published in the combination *Productus crassus*, should give a Ruling that the species so named is to be interpreted by reference to the neotype therefor specified in paragraph 3 of the present application.

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 5. Pp. 169—180

OPINION 421

Designation under the Plenary Powers of a type species
in harmony with accustomed usage for the genus *Martinia*
M^cCoy, 1844 (Class Brachiopoda)

LONDON :

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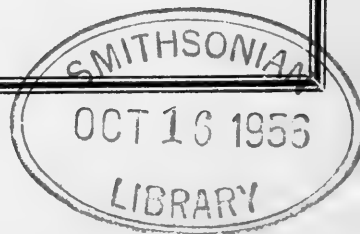
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 421

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History),
Zoological Museum, Tring, Herts., England*)

President : (Vacant)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*)

Secretary : Mr. Francis HEMMING (*London, England*)

B. The Members of the Commission

(*arranged in order of precedence by reference to date of election or of most recent
re-election, as prescribed by the International Congress of Zoology*)

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (*Vice-President*) (1st January 1944)

Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (1st January 1944)

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (28th March 1944)

Professor Harold E. VOKES (*John Hopkins University, Baltimore, Maryland, U.S.A.*) (23rd April 1944)

Dr. William Thomas CALMAN (*Coulsdon, Surrey, England*) (1st January 1947)

Professor Béla HANKÓ (*Békéscsaba, Hungary*) (1st January 1947)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (1st January 1947)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (1st January 1947)

Senor Dr. Angel CABRERA (*Eva Peron, F.C.N.G.R., Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (*Secretary*) (27th July 1948)

Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*) (27th July 1948)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Department of Systematic Zoology, Warsaw University, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a. M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

OPINION 421

DESIGNATION UNDER THE PLENARY POWERS OF A TYPE SPECIES IN HARMONY WITH ACCUSTOMED USAGE FOR THE GENUS "MARTINIA" M^cCOY, 1844 (CLASS BRACHIOPODA)

RULING :—(1) Under the Plenary Powers (a) all type selections for the genus *Martinia* M^cCoy, 1844 (Class Brachiopoda), made prior to the present Ruling are hereby set aside and (b) the under-mentioned nominal species, which has been placed on the *Official List of Specific Names in Zoology* as Name Number 749 by the Ruling given in *Opinion* 420, is hereby designated to be the type species of the foregoing genus : *Spirifer glaber* Sowerby (J.), 1820, to be interpreted, as prescribed in the Ruling given in the foregoing *Opinion*, by reference to the lectotype selected and figured by Muir-Wood (H.M.) in 1951 (pl. 3, figs. 2a-c).

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name Number 1009 : *Martinia* M^cCoy, 1844 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b) above).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 757 : *decora* Phillips, 1836, as published in the combination *Spirifera decorata*, the species so named to be interpreted by reference to the holotype preserved in the British Museum (Natural History) and refigured by Muir-Wood (H.M.) in 1951 (: pl. 5, figs. 6a, b, c).

I. THE STATEMENT OF THE CASE

The application dealt with in the present *Opinion* arose out of an examination of the names given to species of the Class Brachiopoda¹ published in 1809 in William Martin's *Petrificata Derbiensia* carried out by Dr. Helen M. Muir-Wood (*British Museum (Natural History), London*), the results of which were published in 1951 (Muir-Wood, 1951, *Ann. Mag. nat. Hist.* (12) **4** : 97—118) in a paper entitled "The Brachiopoda of Martin's 'Petrificata Derbiensia'". In this paper when discussing the name *Conchyliolithus Anomites glaber* Martin, 1809, Dr. Muir-Wood noted (: 112) that an application would need to be made to the International Commission on Zoological Nomenclature in order to provide a valid basis for the acceptance of the above species as the type species of *Martinia* McCoy, 1844. The application so foreshadowed which was submitted to the Office of the Commission on 12th May 1951, was as follows :—

Proposed use of the Plenary Powers to designate a type species for the genus "Martinia" McCoy, 1844 (Class Brachiopoda) in harmony with current nomenclatorial usage

By HELEN M. MUIR-WOOD, D.Sc.

(*Department of Geology, British Museum (Natural History), London*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to designate, as the type species of *Martinia* McCoy, 1844 (*Syn. carb. Foss. Ireland* : 128, 139) (Class Brachiopoda), a species in harmony with current nomenclatorial usage and thus to prevent the confusion which would arise if the normal provisions of the *Règles* were to be strictly applied. It is particularly hoped that it may be possible for the International Commission to reach an early decision on the present application, since it is important that this matter should be settled prior to the publication of the forthcoming *Treatise on Invertebrate Paleontology*. This case has recently been discussed in a paper entitled

¹ As has been explained in *Opinion* 419 (footnote 1) Dr. Helen Muir-Wood (the applicant in the present case) has notified the Office of the Commission that, in her opinion, the term Brachiopoda should be reserved for use as the name for a Phylum. On this view, the Phylum Brachiopoda consists of two Classes, one of which is named Articulata. It is to this Class Dr. Muir-Wood states, that the genus *Martinia* McCoy, 1844, should be referred.

“ The Brachiopoda of Martin’s *Petrificata Derbiensia* ” (Muir-Wood, 1951, *Ann. Mag. nat. Hist.* (12) 4 : 109—112, pl. 3, figs. 2a-c ; pl. 5, figs. 6a-c), from which the particulars given in the following paragraphs have been extracted.

2. McCoy, when first publishing the generic name *Martinia*, placed in the genus so named eleven species, including (a) *Spirifera decora* Phillips, 1836 (*Geol. Yorkshire* 2 : 219, pl. 10, fig. 9) (the first species cited by McCoy) and (b) *Conchylolithus Anomites (glaber)* Martin, 1809 (a species, the oldest available name for which is *Spirifer glaber* Sowerby (J.), 1820, in view of the decision by the International Commission on Zoological Nomenclature that Martin’s *Petrificata Derbiensia* is not available for the purposes of zoological nomenclature (see also the application submitted to the Commission as Case Z.N.(S.) 534)². McCoy did not designate a type species for the genus *Martinia*, although he indicated that this genus was typified by Martin’s “ short-hinged smooth Spirifer ”. In fact, however, the figures (figs. 18, 22) given by McCoy for Martin’s *glaber* did not represent that species, but under the decision by the International Congress of Zoology at Paris in 1948 that species is nevertheless to be regarded as one of the originally included species of this genus, in view of the provision that the author of a new generic name is to be deemed, for the purpose of Article 30, to have correctly identified the nominal species assigned by him to the genus so named (see 1950, *Bull. zool. Nomencl.* 4 : 158—159).

3. King in 1846 (*Ann. Mag. nat. Hist.* 18 : 29, 32) listed eight species as belonging to the genus *Martinia*, placing *glabra* Martin at the head of the list, but he did not select a type species for this genus. In a list of genera published in 1850 (*Mon. Perm. Foss. Engl.* (Palaeont. Soc.) : 81) King cited *glabra* Martin in such a way as to imply that it was a typical species of *Martinia*, but later in the same publication (: 134) he definitely stated that *Spirifer decora* was the type species of this genus. Since the latter was one of the originally included species and no prior type-selection had been made, this action is valid under the *Règles* and accordingly *Spirifera decora* Phillips, 1836, is the type species of *Martinia* McCoy, 1844.

4. Turning to the treatment of this subject by later authors, we find :—

- (1) that in 1877 (: 46) Dall cited *Spirifer decorus* Phillips and *Martinia glabra* (i.e. Martin’s *glaber* as interpreted by McCoy) as examples of the genus *Martinia* McCoy, but he did not state what species he regarded as the type species ;

² The decision of the International Commission on this case has now been embodied in *Opinion* 420.

- (2) that in 1883 (: 528) Waagen also cited the above species as examples of *Martinia* but did not state what he regarded as the type species ;
- (3) that in 1894 (: 32) Hall and Clarke listed Martin's *glaber* with three American species as belonging to their sub-division 1 or "Aseptati" (= *Martinia* M^CCoy) in their Division VI of *Spirifer* "Glabrati", but did not state what the type species was ;
- (4) that in 1908 (: 30) Buckman (S.S.) definitely stated that *Anomites glaber* Martin was the type species of *Martinia* M^CCoy ;
- (5) that in 1927 (: 110) George (T.N.) also stated that Martin's *glaber* was the type species of *Martinia* M^CCoy ;
- (6) that in 1929 (: 81) Schuchert and LeVene tried to get round the difficulty presented by the fact that two different species had been selected as the type species of *Martinia* M^CCoy by citing the type species of that genus as "*Spirifer decorus* Phillips = *Anomites glaber* Martin, 1809".

5. The holotype of *Spirifera decora* Phillips, 1836, is preserved in the Gilbertson Collection in the British Museum (Natural History) (specimen No. B.264), and has recently been refigured (Muir-Wood, 1951 : pl. 5, fig. 6a, b, c). This specimen has been carefully compared with the lectotype of *Spirifer glaber* Sowerby, 1820 (the name of the nominal species which, as explained in paragraph 2 above, replaces the invalid name *Conchylolithus Anomites (glaber)* Martin, 1809), which has also been refigured (1951 : pl. 3, fig. 2a, b, c). This comparison establishes beyond question that these two specimens belong to different species and therefore that the nominal species *Spirifera decora* Phillips (the type species of *Martinia* M^CCoy) is not identical with *Spirifer glaber* Sowerby, which (under its earlier invalid name *Anomites glaber* Martin) is today accepted as the type species of *Martinia* M^CCoy.

6. The generic name *Martinia* is widely used in the geological literature of Europe in conjunction with the trivial name *glabra*, usually to indicate smooth *Spirifers* with no internal plates. Confusion would be caused if *Spirifera decora* Phillips were to be accepted as the type species of *Martinia* M^CCoy, since the two species *S. decora* and *S. glabra* are almost certainly not congeneric. It is to avoid that confusion that the Commission is asked to use its Plenary Powers to validate current nomenclatorial practice. The specific recommendations now submitted to the International Commission on Zoological Nomenclature are that it should :—

- (1) use its Plenary Powers to set aside all type selections for the genus *Martinia* M^CCoy, 1844, made prior to the decision now proposed to be taken, and to designate *Spirifer glaber* Sowerby,

1820 (as interpreted by the lectotype selected and figured by Muir-Wood (1951 : pl. 3, fig. 2a, b, c) to be the type species of the foregoing genus ;

- (2) place the generic name *Martinia* M^CCoy, 1844 (gender of generic name : feminine) (type species, by designation under the Plenary Powers proposed in (1) above: *Spirifer glaber* Sowerby, 1820, to be interpreted as specified in (1) above) on the *Official List of Generic Names in Zoology* ;
- (3) place the trivial name *decora* Phillips, 1836, as published in the combination *Spirifera decorata*, on the *Official List of Specific Trivial Names in Zoology*, a reference being made therein to the recently republished figures of the holotype of this species (Muir-Wood, 1951 : pl. 5, fig. 6a, b, c).

7. I should certainly have asked also that the trivial name *glaber* Sowerby, 1820, as published in the combination *Spirifer glaber*, should be placed on the *Official List*, if it had not been that I have already asked that this should be done in the application (Z.N.(S.) 534 which (with Dr. C. J. Stubblefield) I have submitted to the International Commission on the general question of the regularisation of the trivial names applied to species of Brachiopoda by Martin in 1809.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of Dr. Muir-Wood's application the question of the use of the Commission's Plenary Powers for the purpose of designating for the genus *Martinia* M^CCoy a type species in harmony with accustomed usage was allotted the Registered Number Z.N.(S.) 535.

3. Publication of the present application : The present application was sent to the printer on 27th May 1951 and was published

in Part 1 of volume 6 of the *Bulletin of Zoological Nomenclature* on 28th September of the same year (Muir-Wood, 1951, *Bull. zool. Nomencl.* 6 : 30—32).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, 1948 (1950, *Bull. zool. Nomencl.* 4 : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 28th September 1951 (a) in Part 1 of volume 6 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Muir-Wood's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to a number of general zoological serial publications and to certain palaeontological serials in Europe and America.

5. Comments received : The only comment elicited from the issue of Public Notices was a letter from Professor G. Winston Sinclair, at that time Chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America setting out the views of the members of that body on the present application. The letter so received is reproduced in the immediately following paragraph.

6. Views of the Members of the Joint Committee on Zoological Nomenclature for Paleontology in America : On 9th April 1952 there was received the following letter dated 18th February 1952 from Professor G. Winston Sinclair (at that time of the *University of Michigan, Ann Arbor, Michigan, U.S.A.*), setting out as follows the views of the members of the Joint Committee on Zoological Nomenclature for Paleontology in America of which he was the Chairman :—

The Joint Committee on Zoological Nomenclature for Paleontology in America has considered this subject, and I wish to inform you that, being polled, they voted : To support the petition (five) : (1) J. Martin Weller ; (2) Bobb Schaeffer ; (3) Bryan Patterson ; (4) John B. Reeside, Jr. ; (5) R. C. Moore : To oppose the petition (six) : (1) Katherine V. W. Palmer ; (2) Don Frizzell ; (3) A. Myra Keen ; (4) Siemon W. Muller ; (5) John W. Wells ; (6) G. Winston Sinclair.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. Issue of Voting Paper V.P.(52)44 : On 15th May 1952, a Voting Paper (V.P.(52)44) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the name *Martinia* M^cCoy, 1844, as set out in Points (1) to (3) on page 32 of volume 6 of the *Bulletin of Zoological Nomenclature* i.e. in the Points numbered as above in paragraph 6 of the application reproduced in the first paragraph of the present *Opinion*.

8. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 15th August 1952.

9. Particulars of the Voting on Voting Paper V.P.(52)44 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(52)44 was as follows :—

(a) *Affirmative Votes had been given by the following thirteen (13) Commissioners (arranged in the order in which Votes were received) :*

Riley ; Hering ; Calman ; Dymond ; Hankó ; Bonnet ; Vokes ; do Amaral ; Pearson³ ; Hemming ; Lemche ; Cabrera ; Boschma ;

(b) *Negative Votes, three (3) :*
Bradley (J.C.) ; Esaki ; Stoll ;

(c) *On Leave of Absence, one (1) :*
Mertens ;

(d) *Voting Papers not returned, one (1) :*
Jaczewski.

³ Commissioner Pearson exercised in this case the right conferred by the Thirteenth International Congress of Zoology, Paris, 1948, under which a Commissioner may, if he so desires, signify his willingness to support the view or the majority view, of other members of the Commission (1950, *Bull. zool. Nomencl.* 4 : 50—51).

10. Declaration of Result of Vote : On 23rd August 1952, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(52) 44, signed a Certificate that the Votes cast were as set out in paragraph 9 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

11. Preparation of the Ruling given in the present " Opinion " : Concurrently with the signature of the Declaration of the result of the vote on Voting Paper V.P.(52)44 (paragraph 10 above), Mr. Hemming, as Secretary, placed on the Commission's File Z.N.(S.) 535 a Minute drawing attention to the fact that in respect of one name there was an overlap between the present application and an earlier application (Z.N.(S.) 534)⁴ which had been submitted to the Commission by the same applicant (Dr. Helen Muir-Wood) but on which at that date a Voting Paper had not as yet been issued to the members of the Commission. The overlap in question arose in the following way: (1) In application Z.N.(S.) 534 Dr. Muir-Wood had asked (a) that the Commission should give a Ruling that the specific name *glaber*, originally published by Martin (W.) in the work *Petrificata Derbiensia* (which had been rejected for nomenclatorial purposes by the Ruling given in *Opinion* 231) in the combination *Conchyliolithus Anomites glaber* ranked for priority as from its publication by Sowerby (J.) in 1820 in the combination *Spirifer glaber*, and (b) that the specific name *glaber* so published by Sowerby should be placed on the *Official List of Specific Names in Zoology* with an endorsement that the species so named be interpreted by reference to the lectotype she had herself then recently selected and figured (1951 : pl. 3, figs. 2a-c); (2) In the application dealt with in the present *Opinion* Dr. Muir-Wood had based her proposals on the assumption that by the date on which this case came to be considered, the Commission would have approved her proposal in Application Z.N.(S.) 534 relating to the name *glaber* Sowerby (J.), 1820 (*Spirifer*), and recommended (a) that under the Plenary Powers the Commission

⁴ See Footnote 1.

should designate the species so named to be the type species of the genus *Martinia* M^CCoy, 1844, (b) that that generic name so determined should be placed on the *Official List of Generic Names in Zoology* and (c) that in the entry so made an endorsement should be made in relation to the type species that it be interpreted by reference to the lectotype for it which she had selected in 1951. Dr. Muir-Wood added that she had deliberately not included in her application regarding *Martinia* M^CCoy a proposal that its type species be placed on the *Official List of Specific Names in Zoology*, since she had already made a recommendation in this sense in her Application Z.N.(S.) 534. In the light of the foregoing review Mr. Hemming, as Secretary, gave a Direction in the Minute referred to above that the preparation of the Ruling on the present case be postponed until such time as a decision had been taken by the Commission on the earlier Application Z.N.(S.) 534. For reasons which have been fully explained in *Opinion* 420, the *Opinion* embodying the Commission's decision on Application Z.N.(S.) 534, various circumstances combined to delay the reaching of a decision on that application and to prevent until 19th November 1955 the preparation of the Ruling on it given in the *Opinion* referred to above. The rendering of that *Opinion* cleared the way for the completion of the present *Opinion*, the Ruling given in which was prepared by Mr. Hemming the following day, 6th March 1956. On the same day Mr. Hemming signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(52)44.

12. Original references : The following are the original references for the names placed on *Official Lists* by the Ruling given in the present *Opinion* :—

decora, *Spirifera*, Phillips, 1836, *Geol. Yorkshire* 2 : 219, pl. 10, fig. 9

Martinia M^CCoy, 1844, *Syn. carb. Foss. Ireland* : 128, 139

13. Family-Group-Name problems : The application dealt with in the present *Opinion* was published in the *Bulletin of Zoological Nomenclature* prior to the establishment of the *Official List of Family-Group Names in Zoology* by the Fourteenth International

Congress of Zoology, Copenhagen, 1953. It has been ascertained that an addition, or additions, to the foregoing *Official List* will need to be made in order to complete the action, which, under the General Directives given to the International Commission by the International Congress of Zoology, is required to be taken in the present case. This question is now being examined on a separate File to which the Registered Number Z.N.(G.) 128 has been allotted.

14. At the time of the submission of the present application the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

15. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

16. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-One (421) of the International Commission on Zoological Nomenclature.

DONE in London, this Sixth day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

VOLUME 14. Part 6. Pp. 181—196



OPINION 422

Determination under the Plenary Powers of the species to which the specific name *mammillatus* Schlotheim, 1813, as published in the combination *Ammonites mammillatus* shall apply and designation under the same Powers of the foregoing species to be the type species of the genus *Douvilleiceras* de Grossouvre, 1893
(Class Cephalopoda, Order Ammonoidea)

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 422

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History) Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (1st January 1947)

Senor Dr. Angel CABRERA (*La Plata, Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (12th August 1953) (*Vice-President*)

Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953) (*President*)

Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*) (12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum V Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

OPINION 422

DETERMINATION UNDER THE PLENARY POWERS OF THE SPECIES TO WHICH THE SPECIFIC NAME "MAMMILLATUS" SCHLOTHEIM, 1813, AS PUBLISHED IN THE COMBINATION "AMMONITES MAMMILLATUS" SHALL APPLY AND DESIGNATION UNDER THE SAME POWERS OF THE FOREGOING SPECIES TO BE THE TYPE SPECIES OF THE GENUS "DOUVILLEICERAS" DE GROSSOUVRE, 1893 (CLASS CEPHALOPODA, ORDER AMMONOIDEA)

RULING :—(1) The following action is hereby taken under the Plenary Powers :—

- (a) It is hereby directed that the nominal species *Ammonites mammillatus* Schlotheim, 1813, be interpreted by reference to the neotype designated by Casey (R.) (1954), namely the specimen figured by Spath (L.F.) in 1923 as figures 3a and 3b on plate 4 of the work entitled *Monograph of the Gault Ammonoidea*.
- (b) All type selections for the genus *Douvilleiceras* de Grossouvre, 1893, made prior to the present Ruling are hereby set aside and the nominal species *Ammonites mammillatus* Schlotheim, 1813, as determined under the Plenary Powers under (a) above, is hereby designated to be the type

species of the genus *Douvilleiceras* de Grossouvre, 1893.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1014 : *Douvilleiceras* de Grossouvre, 1893 (gender : neuter) (type species, by designation under the Plenary Powers under (1)(b) above : *Ammonites mammillatus* Schlotheim, 1813, as determined under the Plenary Powers under (1)(a) above).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 764 : *mammillatus* Schlotheim, 1813, as published in the combination *Ammonites mammillatus* and as determined under the Plenary Powers under (1)(a) above (specific name of type species of *Douvilleiceras* de Grossouvre, 1893).

(4) The under-mentioned specific names are hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Nos. 333 and 334 respectively :—

(a) *mamillaris* d'Orbigny, 1841, as published in the combination *Ammonites mamillaris* (an Invalid Emendation of *mammillatus* Schlotheim, 1813, as published in the combination *Ammonites mammillatus*) ;

(b) *mamillaris* [sic] de Grossouvre, 1893, as published in the combination *Douvilleiceras mamillaris* (an Erroneous Subsequent Spelling for *mamillaris* d'Orbigny, 1841, as published in the combination *Ammonites mamillaris*).

(5) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in*

Zoology with the Name No. 72 : DOUVILLEICERATIDAE
Parona & Bonarelli, 1897 (type genus : *Douvilleiceras*
de Grossouvre, 1893).

I. THE STATEMENT OF THE CASE

On 3rd November 1951 Mr. R. Casey (*Geological Survey and Museum, London*) submitted to the International Commission an application designed to provide a valid basis for the use of the generic name *Douvilleiceras* de Grossouvre, 1893 (Class Cephalopoda, Order Ammonoidea). Under this application the Commission was asked to use its Plenary Powers in a twofold manner, first, to provide for the determination of the identity of the taxon represented by the nominal species *Ammonites mammillatus* Schlotheim, 1813, by reference to a specified published figure of later date, and, second, to designate the foregoing species, determined as shown above, to be the type species of the genus *Douvilleiceras* de Grossouvre, 1893. Subsequent to the decision by the Fourteenth International Congress of Zoology, Copenhagen, 1953, to insert provisions in the *Règles* recognising neotypes as a category of type specimen, Mr. Casey designated as the neotype of the foregoing species the specimen the figure of which he had previously asked that the Commission should direct to be the standard to be adopted in interpreting the nominal species *Ammonites mammillatus* Schlotheim. Following upon this action Mr. Casey amended his application to the Commission (i) to provide for the formal publication therein of his designation of the neotype referred to above and to place on record the requisite details regarding the labelling of that specimen and (ii) to request that the Commission to direct that the above species be interpreted by the neotype which he had designated, in place of by reference to a figure of that specimen as previously requested. The formal change so made by Mr. Casey in his application did not affect the scope of the action under the Plenary Powers which it would be necessary for the Commission to take if it were to decide in favour of the ends sought in the application, for the nominal species *Ammonites*

mammillatus Schlotheim was based on a previously published figure which was not sufficiently good to permit of definite identification by a specialist. Schlotheim's specific name *mammillatus* was accordingly a *nomen dubium* and in consequence no neotype established for the nominal species concerned could acquire a valid status unless and until it was expressly approved by the Commission under its Plenary Powers. The application, so revised, was re-submitted to the Commission by Mr. Casey on 7th April 1954. It was as follows :—

Proposed use of the Plenary Powers to designate (i) a neotype for the nominal species "Ammonites mammillatus" Schlotheim, 1813, and (ii) a type species for the genus "Douvilleiceras" de Grossouvre, 1893 (Class Cephalopoda, Order Ammonoidea)

By R. CASEY

(*Geological Survey and Museum, London*)

The present application to the International Commission on Zoological Nomenclature deals with the problem raised by *Ammonites mammillatus* Schlotheim, 1813. It was originally submitted in accordance with the extension of the Plenary Powers granted to the Commission by the Thirteenth International Congress of Zoology in Paris in 1948 for the purpose of determining how the *Règles* should be applied in cases where it was doubtful to what species a given name should be held to apply (1950, *Bull. zool. Nomencl.* 4 : 324). Since the Copenhagen Congress of 1953, this application has been re-written as a request for the designation of a neotype for the foregoing species. It is important for palaeontological and stratigraphical nomenclature that the name of the nominal species *Ammonites mammillatus* Schlotheim, 1813, should be stabilised in the sense in which it is now almost universally applied. It is particularly hoped that the International Commission will give this application all practicable priority as a decision on it is urgently required in connection with the preparation of the forthcoming *Treatise on Invertebrate Paleontology*.

2. *Ammonites mammillatus* Schlotheim is the type species of the genus *Douvilleiceras* de Grossouvre, 1893 (on which is based the family DOUVILLEICERATIDAE Parona and Bonarelli) and the name *Douvilleiceras mammillatum* connotes one of the most familiar and important index fossils in Cretaceous stratigraphy. The Mammillatum Zone is world-wide and in using the term we follow the practice of four generations of geologists and stratigraphers. Yet, as is shown below, if the *Règles* are permitted to pursue the normal course, the name *D. mammillatum* would be virtually abandoned, the genus *Douvilleiceras* would remain forever taxonomically inaccessable, and an unfamiliar zonal terminology would supplant the well-known "Mammillatum Zone".

3. When proposing the combination *Ammonites mammillatus*, Schlotheim (1813 : 111) did not himself illustrate or describe the species but referred to a figure in Walch (1774 : 196, pl. ii, fig. 3). This indication renders the name available, and in so far as I have been unable to trace a use of the combination *Ammonites mammillatus* prior to that of Schlotheim, or any earlier indication for the original of the Walch figure in question, the name is an available name and the oldest such name for the species in question.

4. Unfortunately, Walch's figure is defective in three respects : (a) It depicts a nucleus or an immature specimen, (b) it shows the specimen in side view only, and (c) it falls far short of what is required by modern standards of illustration. Owing to these facts, it is not possible to determine with certainty the taxonomic species represented by Walch's figure. Hyatt (1903 : 108) observed that "The figure given by Walch seems to apply to the young of the form usually cited by authors as *mammillaris* and figured by d'Orbigny under this revised name". In Spath's view "Walch's original figure . . . may be identical with the distantly ribbed *D. inaequinodum* (Quenstedt)" (Spath, 1923 : 67). To Breistroffer (1947 : 64) Walch's figure "appears to represent a specimen from the Ardennes analogous to *D. orbigny* Hyatt". In my opinion, the figure in question was probably based on one of the coarsely ribbed species of *Douvilleiceras*, such as *D. inaequinodum* (Quenstedt), *D. orbigny* Hyatt, or *D. baylei* Spath, but I consider it unsafe to assume this : alternatively it could represent a member of the MANTELLICERATIDAE.

5. The original of Walch's figure is of unknown provenance, and, if it still exists, its present whereabouts are not known.

6. For over a century palaeontologists have ignored Walch's figure and have based their conception of *Ammonites mammillatus* on figures supplied by later authors. Chief among these are the two plates of ammonites depicted in d'Orbigny's *Paléontologie française* (1841 : pls. 72—73) under the name *A. mammillaris* (an unjustified emendation of *A. mammillatus*). D'Orbigny's interpretation of Schlotheim's species was very broad and his figured examples of "*A. mammillaris*" (with which he synonymised *A. monile* Sowerby (J.), 1816) have since been referred to several distinct species of *Douvilleiceras*. This broad interpretation of *A. mammillatus* was current throughout most of the nineteenth century, but towards its close Parona and Bonarelli adopted the name *D. inaequinodum* (= *A. monile inaequinodus* Quenstedt, 1849) for the coarsely ribbed species of *Douvilleiceras*, such as illustrated in d'Orbigny's plate 73, restricting the name *D. mammillatum* to the forms with more closely spaced ribs, of which the originals of d'Orbigny's plate 72 and Sowerby's (J.) *A. monile* provided examples (Parona and Bonarelli, 1897 : 95). Zittel in 1895 (: 429, fig. 429) had already chosen a specimen of this latter group to illustrate *D. "mammillare"* and his figure, generalised but in agreement with *D. mammillatum* in its current conception, has been reproduced in all

the many editions and translations of his well-known text-book. To this restriction of d'Orbigny's comprehensive *A. "mamillaris"*, Hyatt (1903 : 109) and Jacob (1907 : 370) added their authority.

7. De Grossouvre designated "*A. mamillaris*" [sic] [*recte A. mamillatus*], without an attached author's name, as the type species of his nominal genus *Douvilleiceras*, and the suture-line alone was figured (de Grossouvre, 1893 : 23, 26). Hence there is no published evidence to show in what taxonomic sense de Grossouvre used the specific name *A. mamillatus*. Fortunately, specimens of *Douvilleiceras* formerly in de Grossouvre's collection and labelled by him are preserved both in the British Museum (Natural History) and in the Sedgwick Museum at Cambridge and inspection of these shows clearly that his interpretation of *A. mamillatus* agreed with that of Parona and Bonarelli.

8. Thus, the use of *A. mamillatus* for the closely ribbed *Douvilleiceras*, rather than for the coarsely ribbed species to which Walch's original probably belonged, had become established even before the present century. In his monograph of the Gault Ammonoidea Spath wrote : "It seems desirable to employ the term *D. mamillatum* in the generally accepted interpretation of Parona and Bonarelli, excluding, however, the finely costate *D. monile* (J. Sowerby)" (Spath, 1923 : 69). At the same time Spath proposed the nominal species *Douvilleiceras albense*, to which are now referred the originals of d'Orbigny's plate 72, figs. 3—5 (Breistroffer, 1947 : 65); he retained only the originals of d'Orbigny's plate 72, 1—2 in *D. mamillatum*. Spath's monograph is the modern reference book for the student of Albian stratigraphy and ammonitology and the definition of *D. mamillatum* contained therein has become standardised throughout the world, the species being generally quoted as *D. mamillatum* (Schlotheim), emend. Spath.

9. In 1947, however, Breistroffer, acting strictly in accordance with the provisions of Article 25, adopted a different nomenclature for the species of *Douvilleiceras*. For *D. mamillatum* (Schlotheim) emend. Spath, he revived Quenstedt's name *aequinodus* (originally published in the trinomial combination *Ammonites monile aequinodus*) and he proposed to call the zone of *D. mamillatum* "the zone of *D. monile* and *D. orbigny*" (Breistroffer, 1947 : 51). Breistroffer's nomenclature has not been adopted by other ammonite specialists nor by stratigraphers, who have continued to use *D. mamillatum* as an index-fossil and in the taxonomic sense defined by Spath (see, for instance, Collignon, 1949 : 76, Stoyanow, 1949 : 36 : Casey, 1950 : 270, 292 ; 1951).

10. If, as proposed by Breistroffer, the *Règles* be allowed to take their normal course, the situation would be as follows :—

(a) *Ammonites mamillatus* Schlotheim, 1813, would be interpreted by the figure in Walch referred to above, and, since this is indeterminate, the name could be applied to no other specimen.

(b) The genus *Douvilleiceras* de Grossouvre, 1893, with type species by original designation *Ammonites mammillatus* Schlotheim, 1813 (cited by de Grossouvre in the incorrectly spelt, and in the unjustifiably emended, form *mamillaris*), would have an insecure foundation and would for ever be a source of uncertainty to the taxonomist. Established nomenclature could be upset at any time by an irresponsible author who might claim subjectively to have identified Walch's figure with, say, a species of *Mantelliceras* or some other genus.

(c) The family DOUVILLEICERATIDAE Parona and Bonarelli, would have a similar unsatisfactory basis.

(d) Another, unfamiliar, name would be required for the taxonomic species to which the combination *Douvilleiceras mammillatum* is now almost universally applied.

(e) The term "Mammillatum Zone" could no longer be used in stratigraphy.

11. Serious confusion in stratigraphy and palaeontology would result from this situation. To avoid this confusion I recommend that the International Commission should make use of its Plenary Powers to designate the specimen figured by Spath in 1923 (*Monograph of the Gault Ammonoidea*) as figures 3a and 3b on plate 4, to be the neotype of the nominal species *Ammonites mammillatus* Schlotheim, 1813. In choosing this specimen, I am guided by the following considerations: (a) It is a clearly identifiable specimen of the species accepted as representing *D. mammillatum* by the overwhelming majority of workers. (b) It is accurately localised in the classic Albian section at Folkestone, Kent, itself a standard of comparison for Europe; topotype specimens can be obtained in abundance (see Casey, 1950: 272) and such specimens are represented in the principal museums, both in Britain and abroad. (c) It agrees with *D. mammillatum* as conceived by de Grossouvre, the founder of the genus *Douvilleiceras*. (d) It is the specimen selected to illustrate *D. mammillatum* by Roman in his monumental and widely-used Ammonite Synopsis (Roman, 1938, pl. 43, fig. 411). (e) The specimen is extant, being preserved in the collections of the British Museum (Natural History) and is thus available for study by interested specialists.

12. The foregoing specimen is in the collections of the British Museum (Natural History). Affixed to the specimen are:—

number label "C 12491"—the official registration number of the specimen.

„ „ „ 2710 ” —a supplementary MS catalogue number of the late G. C. Crick.

green spot —indicating figured specimen.

13. Accompanying the specimen are the following labels :—

- (1) “ L.G.S. or basement bed of Gault (zone of *Douvilleiceras mammillatum*) : Folkestone. F. G. H. Price coll. No. 17 ”.
- (2) “ *Douvilleiceras mammillatum* (Schloth.), Albian. Basement bed of Gault. Zone of *Douvilleiceras mammillatum*. Folkestone, Kent. F. G. H. Price coll., purch. F. H. Butler, 26 Feby., 1910 ”.
- (3) “ *Douvilleiceras mammillatum* (Schlotheim), Middle Albian (Lower Gault) Mammillatus Bed, Folkestone, Kent. Figd. Spath, 1923, Mon. Gault. Ammonites (Pal. Soc.), pt. 1, pl. iv, fig. 3. F. G. H. Price coll. 1910 ”.
- (4) “ C 12491. Neotype—Casey ”.

14. The proposal which I now submit is therefore that the International Commission on Zoological Nomenclature should :—

(1) use its Plenary Powers :—

- (a) to designate as the neotype of *Ammonites mammillatus* Schlotheim, 1813, the specimen figured by Spath in 1923, *A Monograph of the Gault Ammonoidea*, as figures 3a and 3b on plate 4 ;
 - (b) to set aside all type selections for the genus *Douvilleiceras* de Grossouvre, 1893, made prior to the decision now to be taken and, having done so, to designate as the type species of that genus the nominal species *Ammonites mammillatus* Schlotheim, 1813, determined as in (a) above ;
- (2) place the generic name *Douvilleiceras* de Grossouvre, 1893 (gender of generic name : neuter) (type species, by designation, as proposed under (1)(b) above, under the Plenary Powers : *Ammonites mammillatus* Schlotheim, 1813, determined, as proposed in (1)(a) above, under the Plenary Powers) on the *Official List of Generic Names in Zoology* ;
 - (3) place the specific name *mammillatus* Schlotheim, 1813, as published in the combination *Ammonites mammillatus*, as proposed, under (1)(a) above, to be interpreted under the Plenary Powers, on the *Official List of Specific Names in Zoology* ;
 - (4) place the under-mentioned invalid emendations of the specific name *mammillatus* Schlotheim, 1813, as published in the combination *Ammonites mammillatus*, on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—
 - (a) *mammillaris* d’Orbigny, 1841, as published in the combination *Ammonites mammillaris* ;
 - (b) *mamillaris* [sic] de Grossouvre, 1893, as published in the combination *Douvilleiceras mamillaris*.

References :

- Breistroffer, M., 1947 : *Trav. Lab. géol. Grenoble* **26** : 1—88
- Casey, R., 1950 : *Proc. geol. Assoc.* **61** : 268—298
- 1951 : *Proc. geol. Assoc.* **62** : 95—99
- Collignon, M., 1949 : *Ann. géol. Service des Mines (Madagascar)*, fasc. 16
- De Grossouvre, A., 1893 : *Mém. Expl. Carte géol. de France*, Les Ammonites de la Craie Supérieure
- D'Orbigny, A., 1840—41 : *Paléontologie française*, Terrains Crétacées. Céphaloposes
- Hyatt, A., 1903 : Pseudoceratites of the Cretaceous. *U.S. geol. Surv. Monograph*
- Parona, C. F., and Bonarelli, E. G., 1897 : *Pal. italica* **2** : 53—112
- Roman, F., 1938 : *Les Ammonites jurassiques et crétacées*, Paris
- Schlotheim, E. F. von, 1813 : *Taschenbuch Min.* **7**
- Spath, L. F., 1923 : A Monograph of the Gault Ammonoidea, Pt. I, *Palaeont. Soc.*
- Stoyanow, A., 1949 : *Mem. geol. Soc. America* **38**
- Walch, J. E., 1774 : Lithologische Beobachtungen, Erstes Stuck. (a) Vom Vervengang der Ammoniten. *Naturforscher* **1** : 197—199
- Zittel, K. A., von, 1895 : *Grundzüge der Palaeontologie*.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of Mr. Casey's application the question of the action required to provide a firm basis for the accustomed usage of the generic name *Douvilleiceras* de Grossouvre, 1893, was allotted the Registered Number Z.N.(S.) 631.

3. Publication of the present application : The present application was published on 11th May 1954 in Part 8 of volume 9 of the *Bulletin of Zoological Nomenclature* (Casey, 1954, *Bull. zool. Nomencl.* **9** : 250—254).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 11th May 1954 (a) in Part 8 of volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Mr. Casey's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to a number of palaeontological serials in Europe and America.

5. No objection received : The issue of Public Notices specified in paragraph 4 above elicited no objection to the action proposed from any source.

6. Addition of a proposal relating to the family-group name based on the generic name " Douvilleiceras " de Grossouvre, 1893 : Shortly before the preparation of the Voting Paper relating to the present case (paragraph 7 below) Mr. Hemming, as Secretary, drew the attention of the applicant to the fact that, as the result of the present application having been originally drafted before the meeting of the Thirteenth International Congress of Zoology, 1953, it contained no explanation regarding the family-group-name problem involved. In reply Mr. Casey stated (letter dated 23rd November 1954) : " I am of course in complete agreement about the need for a supplementary recommendation to secure that the family name DOUVILLEICERATIDAE Parona & Bonarelli is placed on the *Official List of Family-Group Names in Zoology* in line with the Copenhagen decision. The name DOUVILLEICERATIDAE was introduced by Parona and Bonarelli in the publication cited in my paper (1897, *Pal. italica* **2** : 53—112) on page 101 of that publication ". In the light of the foregoing letter Mr. Hemming added the following paragraph (paragraph 4) to the Notes attached to the Voting Paper (V.P.(54)97) issued to the Members of the Commission in regard to this case :—

4. *A Minor Supplementary Proposal* : It is proposed that the family-group name DOUVILLEICERATIDAE Parona & Bonarelli, 1897, the type genus of which has as its type species the species, the name of which is

the subject of the present application, should be placed on the *Official List of Family-Group Names in Zoology*, thereby determining the nomenclatorial status of the family-group so named.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. Issue of Voting Paper V.P.(54)97 : On 26th November 1954, a Voting Paper (V.P.(54)97) was issued in which the Members of the Commission were invited to vote either for, or against "the proposal relating to the specific name *mammillatus* Schlotheim, 1813, as published in the combination *Ammonites mammillatus*, as set out in Points (1) to (4) in paragraph 14 on page 253 (and continued on page 254) in volume 9 of the *Bulletin of Zoological Nomenclature* [i.e. in the Points numbered as above in paragraph 14 of the application reproduced in the first paragraph of the present *Opinion*], as supplemented by the additional proposal specified in paragraph 4 of the Notes over-leaf" [i.e. in the paragraph so numbered quoted in paragraph 6 of the present *Opinion*].

8. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 26th February 1955.

9. Particulars of the Voting on Voting Paper V.P.(54)97 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(54)97 was as follows :—

(a) *Affirmative Votes had been given by the following twenty (20) Commissioners (arranged in the order in which Votes were received) :*

Holthuis ; Hering ; Lemche ; Stoll ; Bradley (J.C.) ;
Vokes ; Esaki ; Bodenheimer ; Dymond ; Bonnet ;
Jaczewski ; Boschma ; Miller ; Key ; Hankó ; do
Amaral ; Hemming ; Riley ; Cabrera ; Kühnelt ;

(b) *Negative Votes, one (1) :*

Sylvester-Bradley ;

(c) *On Leave of Absence, two (2) :*

Mertens ; Prantl ;

(d) *Voting Papers not returned :*

None.

10. Declaration of Result of Vote : On 26th February 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(54)97, signed a Certificate that the Votes cast were as set out in paragraph 9 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the

decision so taken was the decision of the International Commission in the matter aforesaid.

11. Preparation of the Ruling given in the present " Opinion " :
On 6th March 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(54)97.

12. Original References : The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Douvilleiceras de Grossouvre, 1893, *Mém. Carte géol. France*,
Rech. Craie sup. (2) : 26, 107

mammillaris, *Ammonites*, d'Orbigny, 1841, *Pal. franc*, Terr.
crét. : pls. 72, 73

mamillaris, *Douvilleiceras*, de Grossouvre, 1893, *Mém. Carte*
géol. France, Rech. Craie sup. (2) : 23, 26

mammillatus, *Ammonites*, Schlotheim, 1813, *Tasch. Min.* 7 : 111

13. The following is the original reference for the family-group name placed on the *Official List* of names of that category by the Ruling given in the present *Opinion* : DOUVILLEICERATIDAE Parona & Bonarelli, 1897, *Pal. ital.* 2 : 101.

14. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

15. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-Two (422) of the International Commission on Zoological Nomenclature.

DONE in London, this Sixth day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

**OPINIONS AND DECLARATIONS
RENDERED BY THE INTER-
NATIONAL COMMISSION ON
ZOOLOGICAL NOMENCLATURE**

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

VOLUME 14. Part 7. Pp. 197—214



OPINION 423

Addition to the *Official List of Generic Names in Zoology* of the generic name *Xantho* [Leach], [1814] (Class Crustacea, Order Decapoda) and validation under the Plenary Powers of the family-group name XANTHINAE Dana, 1851

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 423

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(Arranged in order of precedence by reference to date of election or of most recent re-election as prescribed by the International Congress of Zoology)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(1st January 1947)

Senor Dr. Angel CABRERA (*La Plata, Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (12th August 1953) (*Vice-President*)

Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*) (12th August 1953) (*President*)

Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*) (12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N. Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum V Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

OPINION 423

ADDITION TO THE "OFFICIAL LIST OF GENERIC
NAMES IN ZOOLOGY" OF THE GENERIC NAME
"XANTHO" LEACH, 1814 (CLASS CRUSTACEA,
ORDER DECAPODA) AND VALIDATION
UNDER THE PLENARY POWERS OF
THE FAMILY-GROUP NAME
"XANTHINAE" DANA, 1851

RULING :—(1) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1016 :—*Xantho* [Leach], [1814] (gender : masculine) (type species, by monotypy : *Cancer incisus* [Leach], [1814]).

(2) The following addition is hereby made to the entry relating to the generic name *Leptodius* Milne Edwards (A.), 1863, on the *Official List of Generic Names in Zoology* made by the Ruling given in *Opinion 85* :—“(generic name to be used by authors who consider *Chlorodius exaratus* Milne Edwards (H.), 1834, to be generically distinct from *Cancer incisus* [Leach], [1814], the type species of *Xantho* [Leach], [1814])”.

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 946 : *incisus* [Leach], [1814], as published in the combination *Cancer incisus* (specific name of type species of *Xantho* [Leach], [1814]).

(4) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic*

Names in Zoology with the Name Numbers 524 and 525 respectively :—

- (a) *Xantho* Dutrochet, 1819 (a junior homonym of *Xantho* [Leach], [1814]) ;
- (b) *Xanthus* Agassiz (J.L.R.), 1843 (an Invalid Emendation of *Xantho* [Leach], [1814]).

(5) Under the Plenary Powers it is hereby directed that the family-group name PILUMNIDAE Samouelle, 1819 (type genus : *Pilumnus* Leach, 1815), while remaining available for use by those authors who consider that its type genus and the genus *Xantho* [Leach], [1814] (the type genus of XANTHINAE Dana, 1851) are referable to different family-group taxa, is not to be used in preference to the name XANTHINAE Dana by those authors who regard the genera *Pilumnus* Leach, 1815, and *Xantho* [Leach], [1814], as belonging to the same family-group taxon.

(6) The under-mentioned family-group names are hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Numbers 73 and 74 respectively :

- (a) XANTHINAE Dana, 1851 (type genus : *Xantho* [Leach], [1814]) ;
- (b) PILUMNIDAE Samouelle, 1819 (type genus : *Pilumnus* Leach, 1815) (subject to the endorsement specified in (5) above).

I. THE STATEMENT OF THE CASE

On 6th January 1951, Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) submitted to the Office of the Commission a preliminary communication on the

subject of the relative status to be assigned to the generic names *Leptodius* Milne Edwards (A.), 1863, and *Xantho* [Leach], [1814] (Class Crustacea, Order Decapoda). The first of these names, which had been placed on the *Official List of Generic Names in Zoology*, was currently treated by many authors to be a junior subjective synonym of *Xantho* [Leach]. In the early part of 1954, Dr. Holthuis revised his proposals in certain respects and on 30th April of that year he submitted the following application to the Commission for consideration :—

**Proposed addition to the “ Official List of Generic Names in Zoology ”
of the generic name “ Xantho ” [Leach], [1814] (Class
Crustacea, Order Decapoda)**

By L. B. HOLTHUIS

(*Rijksmuseum van Natuurlijke Historie, Leiden, the Netherlands*)

When studying the Indo-West Pacific XANTHIDAE with the object to make a thorough revision of this group of crabs, the late Miss Alida M. Buitendijk, who was the Curator of Crustacea of the Rijksmuseum van Natuurlijke Historie, Leiden, encountered a nomenclatorial problem which she intended to lay before the International Commission on Zoological Nomenclature. Miss Buitendijk's untimely death in September 1950, however, prevented her from carrying out her object. Since Miss Buitendijk on several occasions discussed the problem with me and placed me in the possession of all the data, I feel it my duty to bring this question to the attention of the Commission and to submit the undermentioned proposal.

2. According to the opinion of several of the foremost specialists of the family XANTHIDAE (Buitendijk, Gordon, Monod, Odhner) the generic names *Xantho* [Leach], [1814], and *Leptodius* A. Milne Edwards, 1863, are synonyms. Since the type species of these two genera are not identical, the synonymy of *Xantho* and *Leptodius* is a subjective one. The authors who synonymize *Xantho* and *Leptodius*, use the former name for their genus, which seems to be perfectly correct as this name is the older of the two. However, *Opinion* 85 of the International Commission on Zoological Nomenclature (1925, *Smithson. misc. Coll.* 73(3) : 13—18) places the name *Leptodius* A. Milne Edwards, 1863, on the *Official List of Generic Names in Zoology*, while till now the generic name *Xantho* [Leach], [1814], has not been inserted in that *List*. The genus *Xantho* [Leach] is widely distributed in the tropical and subtropical seas of the world and contains a large number of species. The name *Xantho* has been used by practically all carcinologists and it is the name of the type genus of the family XANTHIDAE. Thus it is highly desirable that the name *Xantho* [Leach], [1814], should be preserved.

The International Commission is accordingly asked (1) to place the name *Xantho* [Leach], [1814], on the *Official List of Generic Names in Zoology*, and (2) to add to the existing entry on that *List* relating to the name *Leptodius* A. Milne Edwards, 1863, a note (similar to that already inserted in the parallel case of the generic names of the human malaria parasites, *Plasmodium* and *Laverania*) that this name has been placed on the *Official List* for use only by those specialists who consider that the type species of this genus and that of *Xantho* [Leach] are generically distinct from one another.

3. The gender of the name *Xantho* provides some difficulties. The exact derivation of the name is unknown. Dutrochet (1819, *Bull. Soc. philomat. Paris* 1819 : 155), who gave a genus of Oligochaeta the generic name *Xantho*, which thus is a junior homonym of *Xantho* [Leach], states it to be a “nom mythologique d’une naiade”. Agassiz (1843, *Nomencl. Zool., Crust.* : 28) derived the name given by Leach from the Greek word ζαυθός (incorrectly spelled χανθός by Agassiz) for yellow, and emended the name *Xantho* to *Xanthus*. It seems most probable that Leach indeed named the genus after a Naiad, since he treats the name *Xantho* as a feminine word (the type species *Cancer incisus* is named by Leach *Xantho incisus*). It would be logical therefore to accept the name *Xantho* [Leach], [1814], as being of the feminine gender, but the question of the gender of this name will remain open to doubt until an authoritative Ruling is given by the Commission. Since the publication in 1834 of H. Milne Edwards’s first volume of his *Histoire Naturelle des Crustacés*, the name *Xantho* [Leach] has been treated by almost all carcinologists as being of the masculine gender. In order not to cause changes in the usual spelling of the specific names employed in combination with the generic name *Xantho* [Leach], the International Commission is therefore asked to place this generic name on the *Official List* as being of the male gender.

4. The concrete proposals which I now submit for consideration are that the International Commission should :—

- (1) place on the *Official List of Generic Names in Zoology* the name *Xantho* [Leach], [1814] (in Brewster’s *Edinb. Encycl.* 7(2) : 430) (type species, by monotypy : *Cancer incisus* [Leach], [1814], in Brewster’s *Edinb. Encycl.* 7(2) : 391) (gender of generic name to be treated as masculine) ;
- (2) add the following note to the entry in the foregoing *Official List* made by the Ruling given in *Opinion* 85 in relation to the name *Leptodius* Milne Edwards (A.), 1863 : “(generic name to be used by authors who consider *Chlorodius exaratus* Milne Edwards (H.), 1834, to be generically distinct from *Cancer incisus* [Leach], [1814], the type species of *Xantho* [Leach], [1814])” ;
- (3) place on the *Official List of Specific Names in Zoology* the specific name *incisus* [Leach], [1814] (in Brewster’s *Edinb. Encycl.* 7(2) : 391) as published in the combination *Cancer incisus* ;

(4) place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

- (a) *Xantho* Dutrochet, 1819 (*Bull. Soc. philomat. Paris* 1819 : 155) (a junior homonym of *Xantho* [Leach], [1814]) ;
- (b) *Xanthus* Agassiz, 1843 (*Nomencl. Zool., Crust.* : 28) (an Invalid Emendation of *Xantho* [Leach], [1814]).

2. Family-group-name aspects in the present case : The application in regard to the present case submitted by Dr. Holthuis did not deal with the family-group-name aspects involved, and this matter formed the subject of correspondence between the Secretary and Dr. Holthuis in the autumn of 1954. By that date Dr. Holthuis's original application was already in the hands of the printer and it was accordingly arranged between Mr. Hemming and Dr. Holthuis that a separate note on this subject should be prepared as soon as possible, so that, when the Commission came to consider this case, it might have before it all aspects of the problem involved. It was further arranged that, as Dr. Holthuis was then on the point of leaving Europe for a six-month expedition to Netherland New Guinea, the required note should be prepared by Mr. Hemming on the basis of the information supplied by Dr. Holthuis. The note so prepared was submitted to the Commission on 6th October 1954. It was as follows :—

Proposed use of the Plenary Powers to validate the family-group name "Xanthinae" Dana, 1851 (Class Crustacea, Order Decapoda)

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

The decision by the Fourteenth International Congress of Zoology Copenhagen, 1953 to establish an *Official List of Family-Group Names in Zoology* and to apply to that *List* regulations corresponding with those prescribed for the *Official Lists* previously established makes it necessary to examine applications submitted prior to the Copenhagen Congress for the purpose of determining whether any problem relating to family-group names is involved therein. The present application is concerned with the family-group name based upon the name of the nominal genus *Xantho* [Leach], [1814] (Class Crustacea, Order Decapoda), a proposal relating to which has been submitted to the Commission by Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden,*

The Netherlands). This application has recently been published in the *Bulletin of Zoological Nomenclature* (Holthuis, 1954, *Bull. zool. Nomencl.* **9** : 270—271). The present application has been written in close consultation with Dr. Holthuis and has his full support.

2. Dr. Holthuis's application commences with a reference to the family XANTHIDAE, and, in order to complete the action required in this case (under the Copenhagen Congress's decision referred to above), I recently applied to Dr. Holthuis, both for the reference for the place where the present family-group name was originally published and, also, for any other information regarding this family-group name, of which it would be necessary to take account in submitting this case to the Commission. The following is an extract from the reply (dated 27th September 1954) which I received from Dr. Holthuis :—

*Extract from a letter dated 27th September 1954 from
Dr. L. B. Holthuis*

Family name based on "Xantho"

The reference to the original publication of the family XANTHIDAE is the following : XANTHINAE Dana, 1851, *Amer. J. Sci.* (2) **12** : 123, 124 (type genus : *Xantho* [Leach], [1814]).

There is a difficulty with this family name, because it is a more recent name than that of PILUMNIDAE Samouelle, 1819, *Entomologist's useful Compendium* : 86 (type genus : *Pilumnus* Leach, 1815, *Trans. Linn. Soc. Lond.* **11** : 321), a genus placed on the *Official List of Generic Names in Zoology* in *Opinion* 85, for the genera *Xantho* Leach, 1814, and *Pilumnus* Leach, 1815, are currently considered to belong in the same family. Since the name XANTHIDAE is used for this family by practically all carcinologists, while the name PILUMNIDAE is ignored by them, it will be in the interest of nomenclatorial stability to have the name XANTHIDAE and not that of PILUMNIDAE placed on the *Official List of Family-Group Names in Zoology*.

3. It appears clear from Dr. Holthuis's letter that the interests of stability and universality in zoological nomenclature require that the family group name XANTHIDAE should be preserved. The question for consideration is therefore the nature of the action required to secure this end. The difficulty to be resolved in this case arises from the fact that the genus *Xantho* [Leach], [1814], was not made the type genus of a family-group until 1851 (when a subfamily XANTHINAE was erected by Dana), whereas the genus *Pilumnus* Leach, 1815, a genus currently regarded as belonging to the same family as *Xantho* Leach had been taken as the type genus of a family-group many years previously by Samouelle who in 1819 erected the family PILUMNIDAE. The Copenhagen Congress, when revising the former (totally inadequate) provisions regarding family-group names, laid it down, that subject to the grant of relief in particular cases the principle of priority is to apply as between

any two rival family-group names. In the present case therefore under the foregoing provision the family name PILUMNIDAE Samouelle, 1819, would take priority over the family name XANTHIDAE (ranking as from Dana, 1851).

4. The Copenhagen Congress recognised that the extension of the priority principle to family-group names, coupled with the provision that all family-group names having a given genus as type genus are co-ordinate with one another, might lead to undesirable name-changing unless measures were taken to prevent this from happening. The Congress accordingly inserted in the *Règles* a provision (1953, *Copenhagen Decisions zool. Nomencl.* : 33, Decision 45) authorising taxonomists to set aside priority in this field in cases where, in their opinion, "priority is in conflict with current usage", provided that an author taking such action sends a notification regarding it to the *Bulletin of Zoological Nomenclature*. Action so taken by a taxonomist becomes valid provisionally upon the publication of the foregoing notification. It becomes definitive, however, only if during the ensuing two years no protest against the action so taken is lodged with the International Commission. Where a protest is so lodged, the final decision is to be taken by the Commission. The procedure described above offers conveniences in those cases where an immediate decision is not essential. In other cases, the desired end can be secured by the use by the Commission of its Plenary Powers, those Powers being applicable to every provision in the *Règles*. In the present instance the General Directives issued to the Commission by the International Congress of Zoology (1) that every *Opinion* rendered by it must deal with all parts of the subject submitted and (2) that, whenever there is placed on the *Official List of Generic Names in Zoology* a name of a genus which is the type genus of a family-group, appropriate action in relation to the *Official List of Family-Group Names in Zoology* is to be taken by the Commission, make it necessary to have resort to the Plenary Powers procedure.

5. The recommendation now submitted is that, in the interests of stability and universality in nomenclature at the family-name level, the Commission should :—

- (1) use its Plenary Powers to suppress the family-group name PILUMNIDAE Samouelle, 1819 (type genus : *Pilumnus* Leach, 1815) for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (2) place the family-group name XANTHINAE Dana, 1851 (type genus : *Xantho* [Leach], [1814]) on the *Official List of Family-Group Names in Zoology* ;
- (3) place the family-group name PILUMNIDAE Samouelle, 1819, as suppressed under the Plenary Powers under (1) above, on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*.

II. THE SUBSEQUENT HISTORY OF THE PRESENT CASE

3. Registration of the applications involved in the present case : Upon the receipt in 1951 of Dr. Holthuis's preliminary communication the question of the relative status to be assigned to the generic names *Leptodius* Milne Edwards (A.), 1863, and *Xantho* [Leach], [1814], was allotted the Registered Number Z.N.(S.) 601. The supplementary application in regard to the family-group-name aspects of the above case later received from Mr. Hemming was allotted the same Registered Number.

4. Publication of the applications involved in the present case : Dr. Holthuis's application was sent to the printer on 13th May 1954 and was published on 22nd October of the same year in Part 9 of volume 9 of the *Bulletin of Zoological Nomenclature* (Holthuis, 1954, *Bull. zool. Nomencl.* 9 : 270—271). Mr. Hemming's supplementary application was sent to the printer on 13th October 1954 and was published in Part 11 of the foregoing volume on 30th December 1954 (Hemming, *Bull. zool. Nomencl.* 9 : 329—331).

5. Issue of Public Notices : Dr. Holthuis's application did not involve the possible use of the Commission's Plenary Powers but the use of those Powers was involved in the supplementary application submitted by Mr. Hemming. Accordingly, under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 51—56) Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 30th December 1954 (a) in Part 11 of volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Mr. Hemming's supplementary application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to a number of general zoological serial publications.

6. No objection received : The publication of the foregoing applications in the *Bulletin of Zoological Nomenclature* (paragraph 4 above) and the issue of the Public Notices specified in

paragraph 5 above elicited no objection to the action proposed from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. Issue in August 1955 of Voting Paper V.P.(55)7 : On 5th August 1955, a Voting Paper (V.P.(55)7) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic name *Xantho* [Leach], [1814], and the family-group name based thereon as set out respectively in Points (1) to (4) in paragraph 4 on page 271, and in Points (1) to (3) in paragraph 5 on pages 330 to 331 in volume 9 of the *Bulletin of Zoological Nomenclature* [i.e. in the paragraphs numbered as above in the application reproduced in the first paragraph of the present *Opinion* and in the supplementary application reproduced in paragraph 2 of the present *Opinion* respectively]."

8. Submission by the Secretary in September 1955 of a revised proposal relating to the procedure to be adopted for dealing with the family-group name based upon the generic name "Pilumnus" Leach, 1815 : Shortly after the issue of Voting Paper V.P.(55)7 (paragraph 7 above), Dr. Holthuis notified the Secretary that on reflection he was of the opinion that, while it was essential that means should be found for preserving the family-group name XANTHINAE Dana, 1851, it was undesirable that this should be done by the total suppression under the Plenary Powers of the family-group name PILUMNIDAE Samouelle, 1819, for, if that course were to be adopted, no family-group name would be available for any later worker who might wish to place the genera *Xantho* [Leach] and *Pilumnus* Leach in different family-group taxa. Further consideration was accordingly given by the Secretary to the question of the procedure to be adopted in this matter, in

the light of which the following paper containing modified proposals was submitted to the Commission by Mr. Hemming on 2nd September 1955 :—

Proposed modification of one portion of the proposal submitted with Voting Paper V.P.(55)7 in relation to the family-group name XANTHINAE Dana, 1851 (Class Crustacea, Order Decapoda)

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

In Voting Paper V.P.(55)7 issued on 5th August 1955, the Commission was invited to vote on certain proposals designed to secure, under the Plenary Powers, the preservation of the well-known generic name *Xantho* [Leach], [1814], and the family-group name XANTHINAE Dana, 1851 (Class Crustacea, Order Decapoda). These proposals were submitted in a paper by Dr. L. B. Holthuis (*Bull. zool. Nomencl.* 9 : 270—271), which was concerned with the position at the generic name level and a note on the family-group name aspects prepared by myself in consultation with Dr. Holthuis (*ibid.* 9 : 329—331).

(2) In the second portion of this case it was recommended that, as the family-group names XANTHINAE Dana, 1851 (type genus : *Xantho* Leach, 1814) and PILUMNIDAE Samouelle, 1819 (type genus : *Pilumnus* [Leach], [1815]) were subjective synonyms of one another and as it was the later-published of these names which it was desired to preserve, the older family-group name PILUMNIDAE Samouelle, 1819, should be suppressed under the Plenary Powers. Dr. Holthuis now informs me that he feels that it would be a mistake to suppress this family-group name, since the time may come when specialists may wish to place the genera *Pilumnus* and *Xantho* in different family-group taxa.

(3) In these circumstances, the proposal that the family-group name PILUMNIDAE Samouelle, 1819, should be suppressed under the Plenary Powers should not, I think, be pursued. Nevertheless, some action will need to be taken by the Commission if, as is desired, the family-group name XANTHINAE Dana is to be prevented from being sunk as a junior subjective synonym of the family-group name PILUMNIDAE Samouelle. I suggest that the desired protection should be afforded to the name XANTHINAE Dana by means of a procedure already adopted by the Commission on a number of occasions at the generic name level. This procedure may be illustrated by the action by the Commission, under its Plenary Powers, to protect the well-known generic name *Argynnis* Fabricius, 1807, in the Lepidoptera, from its long neglected senior subjective synonym *Argyreus* Scopoli, 1777. In this case Lepidopterists did not want the suppression of the name *Argyreus* Scopoli in so far as it was used by specialists who considered that its type species (*Papilio niphe* Linnaeus, 1767, a junior subjective synonym of *Papilio hyperbius* Linnaeus, 1763) was generically distinct from

Papilio paphia Linnaeus, 1758, the type species of *Argynnis* Fabricius, 1807. What, however, all Lepidopterists did wish to secure was that the name *Argyreus* Scopoli, 1777, should not be used in preference to *Argynnis* Fabricius, 1807, by those workers (at that time the great majority) who regarded *P. niphe* and *P. paphia* as being congeneric with one another. This desire was recognised by the Commission which decided at Lisbon in 1935 to use its Plenary Powers to direct that the name *Argyreus* Scopoli, 1777, while remaining available for use by those zoologists who regarded its type species as being generically distinct from the type species of *Argynnis* Fabricius, 1807, should nevertheless not be available for use in preference to the name *Argynnis* Fabricius by those zoologists who considered that the species which were the respective type species of the foregoing genera were congeneric with one another. This decision was embodied in *Opinion 161* (1945, *Ops. Decls. int. Comm. zool. Nomencl.* 2 : 307—318). Later, this decision was completed in *Direction 2* (1954, *ibid.* 2 : 613—628), when the generic name *Argyreus* Scopoli, 1777, was placed on the *Official List of Generic Names in Zoology* with an endorsement that, as provided by the Ruling given in *Opinion 161*, it was available for use by specialists who regarded the type species of *Argyreus* Scopoli and *Argynnis* Fabricius as generically distinct from one another but was not to be used in preference to *Argynnis* Fabricius.

(4) The suggestion now submitted is that the family-group name XANTHINAE Dana, 1851, should, on the analogy of the procedure outlined in the preceding paragraph, be protected by means of a Ruling by the Commission that the name PILUMNIDAE Samouelle, 1819, while available for use by those zoologists who consider that its type genus (*Pilumnus* Leach) and *Xantho* [Leach] (the type genus of XANTHINAE Dana) are referable to different family-group taxa, is not to be used in preference to the name XANTHINAE by those zoologists who regard *Pilumnus* and *Xantho* as belonging to the same family-group taxon. Such a Ruling would involve the use of the Plenary Powers but this will not cause any delay in this case since the more drastic proposal (the suppression of the name PILUMNIDAE Samouelle) has already been advertised in the prescribed manner and the change now suggested is of a procedural character only.

(5) The proposal now laid before the Commission is therefore :—

- (1) that, in place of the action recommended in Point (1) in paragraph 5 on page 330 of volume 9 of the *Bulletin of Zoological Nomenclature*, the Commission should, under its Plenary Powers, direct that the availability of the family-group name PILUMNIDAE Samouelle, 1819 (type genus : *Pilumnus* Leach, 1815) be limited in the manner set out in paragraph 4 of the present note ;
- (2) that, in place of the proposal recommended in Point (3) in paragraph 5 on page 331 of the *Bulletin*, referred to above, the Commission should place the family-group name

PILUMNIDAE Samouelle on the *Official List of Family-Group Names in Zoology*, subject to two endorsements, namely (a) that this name is placed on the *List* for use by any worker who may consider that *Pilumnus* Leach and *Xantho* [Leach] belong to different family-group taxa, and (b) that the availability of this family-group name be limited in the manner specified in (1) above.

9. Issue in September 1955 of Voting Paper V.P.(55)16 : On 2nd September 1955 a supplementary Voting Paper (V.P.(55)16) was issued in which the Members of the Commission were invited to vote either for, or against, "the revised proposals relating to the family-group name PILUMNIDAE Samouelle, 1819, recommended in paragraph 5 of the memorandum by the Secretary, numbered Z.N.(S.) 601, submitted simultaneously with the present Voting Paper [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 8 of the present *Opinion*].

10. The Prescribed Voting Period : Both Voting Paper V.P.(55)7 and Voting Paper V.P.(55)16 were issued under the Three-Month Rule. As the first of these Voting Papers was issued on 5th August 1955, the Prescribed Voting Period would normally have closed on 5th November 1955. In view, however, of the fact that Voting Paper V.P.(55)16 was issued in substitution for the proposals in relation to the family-group name PILUMNIDAE Samouelle previously submitted with Voting Paper V.P.(55)7, the Prescribed Voting Period for the last-mentioned Voting Paper was extended to 2nd December 1955, the date of the close of the Prescribed Voting Period for Voting Paper V.P.(55)16.

11. Voting Procedure adopted for the concurrent voting by Commissioners on Voting Papers V.P.(55)7 and V.P.(55)16 : In view of the fact that Voting Paper V.P.(55)16 was issued during the currency of the Prescribed Voting Period for Voting Paper V.P.(55)7, some Members of the Commission had already voted on the last-mentioned Voting Paper at the time of the issue of Voting Paper V.P.(55)16, while others had not. In order to meet this situation, the following request was made to Members

of the Commission at the time of the submission of Voting Paper V.P.(55)16 :—

- (a) Members of the Commission *who have already voted* on Voting Paper V.P.(55)7 are asked to complete and return to this Office the annexed Voting Paper V.P.(55)16 ;
- (b) Members of the Commission *who have not yet voted* on Voting Paper V.P.(55)7 are asked, when doing so, to complete also the supplementary Voting Paper now issued.

12. Particulars of the Voting on Voting Paper V.P.(55)7, exclusive of the portion relating to the family group name “ PILUMNIDAE ” Samouelle, 1819 : At the close of the Prescribed Voting Period extended as specified in paragraph 10 above, the state of the voting on Voting Paper V.P.(55)7, exclusive of the portion relating to the family-group name PILUMNIDAE Samouelle, 1819, was as follows :—

- (a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Riley ; Vokes ; Stoll ; Hering ; Bradley (J.C.) ; Lemche ; Prantl ; Hankó ; Mayr ; do Amaral ; Hemming ; Esaki ; Kühnelt ; Dymond ; Key ; Mertens ; Bonnet ; Miller ; Sylvester-Bradley ; Cabrera ; Jaczewski ;

- (b) *Negative Votes :*

None ;

- (c) *Voting Papers not returned, two (2) :*

Boschma ; Tortonese¹.

13. Particulars of the Voting on Voting Paper V.P.(55)16, relating to the family-group “ PILUMNIDAE ” Samouelle, 1819 :

¹ After the close of the Prescribed Voting Period late affirmative votes were received from Commissioner Boschma and from Commissioner Tortonese.

At the close of the Prescribed Voting Period, the state of the Voting on Voting Paper V.P.(55)16, relating to the family-group name *PILUMNIDAE* Samouelle, 1819 (the subject which had been with drawn from the scope of Voting Paper V.P.(55)7) was as follows :—

(a) *Affirmative Votes had been given by the following twenty four (24) Commissioners (arranged in the order in which Votes were received) :*

Lemche ; Bodenheimer ; Holthuis ; Hering ; Vokes ; Riley ; Mayr ; Esaki ; Bradley (J.C.) ; Stoll ; do Amaral ; Boschma ; Kühnelt ; Hemming ; Dymond ; Sylvester-Bradley ; Key ; Prantl ; Mertens ; Bonnet ; Hankó ; Cabrera ; Jaczewski ; Miller²;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned, one (1) :*

Tortonese³.

14. Declaration of Result of Votes on Voting Papers V.P.(55)7 and V.P.(55)16 : On 17th December 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Votes taken on Voting Papers V.P.(55)7 and V.P.(55)16, signed a Certificate that the Votes cast on the foregoing Voting Papers were as set out respectively in paragraphs 12 and 13 above and declaring (a) that the proposals submitted with Voting Paper V.P.(55)7, other than the proposal relating to the family

² Commissioner Miller exercised in this case the right conferred by the Thirteenth International Congress of Zoology in Paris, 1948, under which a Commissioner may, if he so desires, signify his willingness to support the view or the majority view, of other members of the Commission (1950, *Bull. zool. Nomencl.* 4 : 50—51)

³ After the close of the Prescribed Voting Period a late affirmative vote was received from Commissioner Tortonese.

name PILUMNIDAE Samouelle, 1819, which was withdrawn by the Secretary in his paper dated 2nd September 1955 (paragraph 8 above), had been duly adopted, (b) that the revised proposals relating to the foregoing family-group name submitted with Voting Paper V.P.(55)16 had likewise been duly adopted and (c) that the decisions so taken were the decisions of the International Commission in the matters aforesaid.

15. Preparation of the Ruling given in the present "Opinion" :
On 7th January 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposals approved by the International Commission in its Vote on Voting Paper V.P.(55)7, as supplemented by its Vote on Voting Paper V.P.(55)16.

16. Original References : The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

- incisus*, *Cancer*, [Leach], [1814], in Brewster's *Edinb. Ency.* 7(2) : 391
Xantho [Leach], [1814], in Brewster's *Edinb. Ency.* 7(2) : 430
Xantho Dutrochet, 1819, *Bull. Soc. sci. philomat. Paris* 1819 : 155
Xanthus Agassiz (J.L.R.), 1843, *Nomencl. zool., Crust.* : 28

17. The following are the original references for the family-group names placed on the *Official List of Family-Group Names in Zoology* by the Ruling given in the present *Opinion* :—

- PILUMNIDAE Samouelle, 1819, *Entomologist's useful Compendium* : 86
 XANTHINAE Dana, 1851, *Amer. J. Sci.* (2)12 : 123, 124

18. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the

International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

19. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-Three (423) of the International Commission on Zoological Nomenclature.

DONE in London, this Seventh day of January, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

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OPINION 424

Validation under the Plenary Powers of the specific name *rufa* Linnaeus, 1761, as published in the combination *Formica rufa* and designation under the same Powers of the species so named to be the type species of the genus *Formica* Linnaeus, 1758 (Class Insecta, Order Hymenoptera)

LONDON :

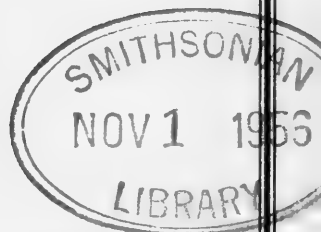
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 424

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(*Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology*)

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Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, Berkeley, California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale, "G. Doria," Genova, Italy*) (16th December 1954)

OPINION 424

VALIDATION UNDER THE PLENARY POWERS OF THE
SPECIFIC NAME "RUFA" LINNAEUS, 1761, AS
PUBLISHED IN THE COMBINATION "FORMICA
RUFA" AND DESIGNATION UNDER THE
SAME POWERS OF THE SPECIES SO
NAMED TO BE THE TYPE SPECIES
OF THE GENUS "FORMICA"
LINNAEUS, 1758 (CLASS
INSECTA, ORDER
HYMENOPTERA)

RULING :—(1) The following action is hereby taken
under the Plenary Powers :—

- (a) The specific name *rufa* Linnaeus, 1758, as published in the combination *Formica rufa*, is hereby suppressed for the purposes of the Law of Priority and also for those of the Law of Homonymy.
- (b) The specific name *rufa* Linnaeus, 1761, as published in the foregoing combination in the Second Edition of the *Fauna svecica* is hereby validated ;
- (c) The nominal species *Formica rufa* Linnaeus, 1761, is, it is hereby directed, to be interpreted by reference to the winged female specimen in the Linnean collection at Burlington House, London, selected to be the lectotype by Yarrow (I.H.H.) in paragraph 17 of the paper reproduced in paragraph 13 of the present *Opinion*.
- (d) The nominal species *Formica rufa* Linnaeus, 1761, as interpreted under the Plenary Powers in (c) above is hereby designated to be the type species

of the nominal genus *Formica* Linnaeus, 1758 (Class Insecta, Order Hymenoptera).

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers 1017 and 1018 respectively :—

- (a) *Formica* Linnaeus, 1758 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(d) above : *Formica rufa* Linnaeus, 1761, as validated under the Plenary Powers under (1)(b) above and as interpreted under the same Powers under (1)(c) above) ;
- (b) *Camponotus* Mayr, 1861 (gender : masculine) (type species, by selection by Bingham (1903) : *Formica ligniperda* Latreille, 1802).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers 947 and 948 respectively :—

- (a) *rufa* Linnaeus, 1761, as published in the combination *Formica rufa*, as validated under the Plenary Powers under (1)(b) and as interpreted under the same Powers under (1)(c) above (specific name of type species of *Formica* Linnaeus, 1758) ;
- (b) *ligniperda* Latreille, 1802, as published in the combination *Formica ligniperda* (specific name of type species of *Camponotus* Mayr, 1861).

(4) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Number 342 :—*rufa* Linnaeus, 1758, as published in the combination *Formica rufa*, as suppressed under the Plenary Powers under (1)(a) above).

(5) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Number 75 :—FORMICIDAE (correction of FORMICARIAE) Latreille, [1802—1803] (first

published in correct form as FORMICIDAE by Stephens (J.F.), 1829) (type genus : *Formica* Linnaeus, 1758).

(6) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Numbers 58 to 61 respectively :—

- (a) FORMICARIAE Latreille, [1802—1803] (type genus : *Formica* Linnaeus, 1758) (an Invalid Original Spelling for FORMICIDAE) ;
- (b) FORMICARIDES [Leach], [1815] (type genus : *Formica* Linnaeus, 1758) (an Erroneous Subsequent Spelling for FORMICIDAE (correction of FORMICARIAE) Latreille, [1802—1803]) ;
- (c) FORMICADAE Leach, 1819 (type genus : *Formica* Linnaeus, 1758) (an Erroneous Subsequent Spelling for FORMICIDAE (correction of FORMICARIAE) Latreille, [1802—1803]) ;
- (d) FORMICAEDES Billberg, 1820 (type genus : *Formica* Linnaeus, 1758) (an Erroneous Subsequent Spelling for FORMICIDAE (correction of FORMICARIAE) Latreille, [1802—1803]).

I. THE STATEMENT OF THE CASE

On 16th August 1937, the late Professor A. D. Imms (*President*) and Professor O. W. Richards (*Secretary*), Royal Entomological Society of London, formally communicated to the International Commission on Zoological Nomenclature Part 5 of the work entitled *The Generic Names of British Insects*, published two days earlier, intimating that the Council of the Society concurred in the recommendations set forth in the foregoing Part and commended those recommendations to the favourable consideration of the International Commission. The above Part contained

a Report by the Hymenoptera Sub-Committee¹ of the Society's Committee on Generic Nomenclature² setting out the names of the genera of Hymenoptera Aculeata represented in the British fauna. Attached to the Sub-Committee's Report was a detailed survey of the problems involved which had been prepared for the Sub-Committee by Dr. O. W. Richards, one of its members. The Report contained recommendations regarding seventeen generic names and two specific names. Among the former was included the case of the name *Formica* Linnaeus, 1758, with which the present *Opinion* is concerned. The application so submitted was as follows :—

Proposed suspension of the "Règles" for the names "Formica" Linnaeus, 1758, and "Camponotus" Mayr, 1861 (Class Insecta, Order Hymenoptera)

By R. B. BENSON, M.A.

(Assistant Keeper in the Department of Entomology,
British Museum (Natural History)),

CH. FERRIERE

(Imperial Institute of Entomology, London)

and

O. W. RICHARDS, D.Sc.

(Imperial College of Science and Technology, London).

Linnaeus (1758, *Syst. Nat.* (ed. 10a) 1 : 579) founded the genus *Formica* for a number of species of ants, including *Formica rufa* Linnaeus, 1758, and *Formica herculeana* Linnaeus, 1758. Latreille (1810, *Consid. génér.* : 437) cited the latter species as the type of the genus. This citation is valid although the name *Formica herculeana* is followed by the words "ejusdem rufa", indicating that *Formica*

At the time of the submission of the foregoing Report the composition of the Hymenoptera Sub-Committee was as follows :—R. B. Benson, M.A. ; Ch. Ferrière ; O. W. Richards, D.Sc.

² The Composition of the Committee on Generic Nomenclature was the same at this time as at the date of the submission of Part 4 of the *Generic Names of British Insects*, and has been given in footnote 2 to *Opinion* 211 (volume 4 in the *Opinions and Declarations Series*), which deals with a recommendation submitted in that Part.

rufa was also a member of the genus. Curtis (1839, *Brit. Ent.* **16** : plate 752) designated *Formica rufa* as the type and his designation has been universally followed by hymenopterists. Meanwhile, *Formica herculeana* is now placed in the genus *Camponotus* Mayr (1861, *Europ. Formicid.* : 35) (type *Formica ligniperda* Latreille, 1802, by designation of Bingham, 1903, *Faun. Brit. India*, Hym. **2** : 347).

Camponotus and *Formica* in the generally accepted sense are both very large genera of world-wide distribution and any change in their generic nomenclature would cause great confusion.

We are of the opinion that it is highly desirable that in the exercise of the Plenary Powers conferred on them by the International Zoological Congress, the International Commission on Zoological Nomenclature should as soon as possible take the steps laid down by the Congress for the promulgation of an *Opinion* to the following effect :—

The names *Formica* Linnaeus, 1758 (type *Formica rufa* Linnaeus, 1758) and *Camponotus* Mayr, 1861 (type *Formica ligniperda* Latreille, 1802) be added to the *Official List of Generic Names*. The designation by Latreille (1810) of *Formica herculeana* Linnaeus, 1758, as the type of *Formica* is therefore to be set aside and the designation by Curtis (1839) of *Formica rufa* Linnaeus, 1758, is to be upheld.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : The Report by the Hymenoptera Sub-Committee included in Part 5 of the work *The Generic Names of British Insects* was, on its receipt by the International Commission, given the Registered Number Z.N.(S.) 133. Later, however, when the proposals therein were split up for individual treatment, the application regarding the name *Formica* was allotted the Registered Number Z.N.(S.) 776.

3. Effect on the present application of the interpretation of Latreille's " Considérations générales " of 1810 given in " Opinion " 136 : It had not been found possible to advance the consideration

of the present case by the time that the outbreak of war in Europe in September 1939 led to the evacuation of the records of the International Commission from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. When in 1944 the present case was being prepared for the printer, Mr. Hemming came to the conclusion that the end desired by the applicants could be attained without the use by the International Commission of its Plenary Powers, for in *Opinion* 136 (1939, *Ops. Decls. int. Comm. zool. Nomencl.* 2 : 13—20) the Commission had amplified and in part emended the interpretation of Latreille's *Considérations générales sur l'Ordre naturel des Animaux composant les Classes des Crustacés, des Arachnides et des Insectes avec un tableau méthodique de leurs Genres disposés en Familles* of 1810 given by the Ruling in *Opinion* 11. Upon the adoption of that *Opinion*, it became immediately apparent that an entirely new situation had arisen, so far as concerned the generic name *Formica* Linnaeus. After communicating with the applicants, Mr. Hemming annexed the following explanatory note to the application in this case before sending it to the printer :—

In view of the clarification of the Commission's *Opinion* 11 given in *Opinion* 136 (which was not published at the time when the present application was drawn up), the difficulties in regard to *Formica* Linnaeus, 1758, discussed in that application have disappeared, for under *Opinion* 136 Latreille did not in 1810 make a valid designation of the type species of *Formica* Linnaeus. In consequence the designation by Curtis (1839) of *Formica rufa* Linnaeus, 1758, as the type species of that genus is valid. Thus, the names *Formica* Linnaeus, 1758, and *Camponotus* Mayr, 1861, can now be placed on the *Official List of Generic Names in Zoology*, without the prior use by the Commission of their Plenary Powers to suspend the *Règles Internationales*. (int'd.) F.H. 11th August 1944.

4. Publication of the present application: The present application, with Mr. Hemming's annexed note, was sent to the printer in September 1944, but, owing to difficulties arising from paper

rationing, shortage of labour at the printing works and similar causes, publication did not actually take place until 28th February 1947 (*Bull. zool. Nomencl.* **1** : 207).

5. Support received from Dr. Th. Mortensen (Universitetets Zoologiske Museum, Copenhagen, Denmark : On 8th April 1947, Dr. Th. Mortensen (*Universitetets Zoologiske Museum, Copenhagen*) addressed a letter to the Office of the Commission, in which he commented upon a number of applications then recently published in the *Bulletin of Zoological Nomenclature*, in which, as regards the present application he indicated his support as follows :—"All of the proposals by Benson, Ferrière and Richards (pp. 204—220) should be accepted".

6. Submission of the present application to the International Commission on Zoological Nomenclature at its Session held in Paris in July 1948 : The present application was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 1730 hours. In presenting this case, the Acting President (Mr. Francis Hemming) said that for the reasons explained in the brief note which he had published in the previous year (the text of which has been reproduced in paragraph 3 of the present *Opinion*) it no longer appeared that the use of the Commission's Plenary Powers would be required in order to attain the objects sought by the applicants. The ground had therefore been cleared for the addition of the generic names *Formica* Linnaeus, 1758, and *Camponotus* Mayr, 1861, to the *Official List of Generic Names in Zoology* under the normal procedure prescribed for the recording in this way of nomenclatorially available names.

7. Decision taken by the International Commission on Zoological Nomenclature at its Session held in Paris in July 1948 : The following is an extract from the Official Record of the Proceedings of the Commission of the Thirteenth Meeting of its Paris Session, setting out the decision then reached by it in the

present case (Paris Session, 13th Meeting, Conclusion 43) (1950, *Bull. zool. Nomencl.* **4** : 408—410) :—

THE COMMISSION agreed :—

- (1) that no type selection within the meaning of Rule (g) in Article 30 was made for the genus *Formica* Linnaeus, 1758, by Latreille in 1810 (*Consid. gén. Crust. Arach. Ins.*), that under the *Règles* the type species of this genus was *Formica rufa* Linnaeus, 1758, that species having been the first of the originally included species to have been duly so selected under Rule (g) in Article 30 (by Curtis, 1839), and therefore that no question arose of the Commission having to use their Plenary Powers to designate that species as the type species of the foregoing genus ;
- (2) to place the under-mentioned generic names with the type species severally specified below on the *Official List of Generic Names in Zoology* :—
 - (a) *Formica* Linnaeus, 1758 (type species, by selection by Curtis, 1839 : *Formica rufa* Linnaeus, 1758) ;
 - (b) *Camponotus* Mayr, 1861 (type species, by selection by Bingham, 1903 : *Formica ligniperda* Latreille, 1802) ;
- (3) to place the under-mentioned trivial names on the *Official List of Specific Trivial Names in Zoology* :—
 - (a) *rufa* Linnaeus, 1758, as published in the combination *Formica rufa* ;
 - (b) *ligniperda* Latreille, 1802, as published in the combination *Formica ligniperda* ;
- (4) to render an *Opinion* recording the decisions specified in (1) to (3) above.

8. Commissioners attending the Session held in Paris in July 1948 : The decision quoted in the immediately preceding paragraph was concurred in by each of the sixteen (16) Commissioners and Alternate Commissioners present at the Session of the International Commission held in Paris in July 1948, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

9. Submission of a Report on the present application to the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948 : The decision taken by the International

Commission on Zoological Nomenclature in relation to the present case, as set out in the extract from the *Official Record* of its Proceedings at its Paris Session reproduced in paragraph 7 of the present *Opinion*, was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 108).

10. Discovery in 1953 by Dr. I. H. H. Yarrow (British Museum (Natural History), London) that the nominal species "Formica rufa" Linnaeus, 1758, the type species of the genus "Formica" Linnaeus, 1758, did not represent to the taxon currently identified therewith : On 18th July 1953, Dr. I. H. H. Yarrow (*British Museum (Natural History), London*) communicated to the Office of the Commission a paper in which, while in agreement with the general purpose of the application relating to the generic name *Formica* Linnaeus, 1758, dealt with by the International Commission in Paris in 1948 (paragraph 7 above), he drew attention to a serious flaw in the application then considered by the Commission which called for the use of the Commission's Plenary Powers if the object of the decision taken in Paris was to be secured. The difficulty uncovered by Dr. Yarrow arose from the fact that, as it now appeared, the nominal species *Formica rufa* Linnaeus, 1758, the type species of the genus *Formica* Linnaeus, 1758, did not represent the taxon commonly identified with it and that, if the foregoing nominal species, interpreted by the taxon which it was now known to represent, continued to be accepted as the type species of *Formica*, the very confusion which in Paris in 1948 the Commission had sought to avert would arise again in a different form.

11. Action taken upon the receipt of Dr. Yarrow's communication in July 1953 : Dr. Yarrow's communication in regard to the present case was received on the eve of the temporary transfer of the Office of the Commission to Copenhagen in preparation for the meetings of the Colloquium on Zoological Nomenclature which, jointly with the International Commission, had been summoned to meet in that city on 29th July 1953 in anticipation of the opening a week later of the Fourteenth International Congress of Zoology. In these circumstances it was impossible at that time to take any action on the communication received

from Dr. Yarrow. However, before leaving London for Copenhagen, Mr. Hemming executed the following Minute (on 23rd July 1953) placing on record that it would be necessary for the present case to be re-submitted to the Commission before an *Opinion* embodying the decision taken in Paris was prepared :—

Discovery by Dr. I. H. H. Yarrow that “*Formica rufa*” Linnaeus, 1758, is a species of “*Camponotus*” Mayr, 1861, and not of “*Formica*” Linnaeus, 1758

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

A new situation has been created by the Report dated 18th July 1953 now received from Dr. I. H. H. Yarrow (*British Museum (Natural History)*) that it has been established that the nominal species *Formica rufa* Linnaeus, 1758, represents a species of the genus *Camponotus* Mayr, 1861, and not, as previously thought, of the genus *Formica* Linnaeus, 1758 ; for, when in 1948 the International Commission accepted the foregoing nominal species as the type species of the genus *Formica* Linnaeus, its object was to secure that the name *Formica* should continue to be used in its accustomed sense and should not become a senior synonym of *Camponotus* Mayr, a situation which the applicants had anticipated arising through the acceptance, as they believed was necessary without help from the Commission, of *Formica herculeana* Linnaeus, 1758, as the type species of *Formica* Linnaeus.

2. In these circumstances it is clearly necessary that this case should be re-submitted to the International Commission before any further action is taken thereon. As Secretary, I accordingly hereby direct that no action be taken on the decision reached by the International Commission in this case in 1948 (1950, *Bull. zool. Nomencl.* 4 : 408—410), pending the submission to the Commission of the Report now received from Dr. Yarrow.

12. Procedure agreed upon in 1954 for dealing with the situation created by Dr. Yarrow’s communication of July 1953 : The piloting through the press of the work *Copenhagen Decisions on Zoological Nomenclature*, the Official Record of the decisions in this field taken by the Fourteenth International Congress of Zoology, occupied almost the whole of the resources of the Office of the Commission for the remainder of the year 1953. By the early part of 1954 good progress had, however, been made in the preparation of *Opinions* embodying decisions on individual problems taken by the International Commission at its Session held in Paris

in 1948. At this point it was judged that the stage had been reached at which the situation disclosed in the communication received by Dr. Yarrow in July 1953 should be placed before the Commission. Correspondence thereupon ensued between the Secretary and Dr. Yarrow, as the result of which it was agreed that this matter should be laid before the Commission in two documents, namely :—(1) Dr. Yarrow's communication (at that time slightly extended) which was concerned mainly with an exposition of the taxonomic issues involved ; (2) a supplementary paper to be prepared by the Secretary on the purely nomenclatorial problems raised in the present case.

13. Supplementary Application submitted by Dr. I. H. H. Yarrow (British Museum (Natural History), London) : On 6th October 1954 the following application, embodying certain minor revisions of the application submitted in July 1953, was communicated to the Office of the Commission for the consideration of the International Commission :—

Application for the re-examination and re-phrasing of the Decision taken by the International Commission regarding the name of the type species of "Formica" Linnaeus, 1758 (Class Insecta, Order Hymenoptera)

By I. H. H. YARROW, M.A., Ph.D.
(British Museum (Natural History), London)

SYNOPSIS

Benson, Ferrière and Richards in 1937 and 1947 submitted a case to the International Commission on Zoological Nomenclature asking for the preservation of the existing usage of the generic names *Formica* Linnaeus, 1758 and *Camponotus* Mayr, 1861, by cancelling the selection by Latreille (1810) of *Formica herculeana* Linnaeus, 1758, as the type species of the genus *Formica* Linnaeus, 1758, and in its place accepting the selection by Curtis (1839) of *Formica rufa* Linnaeus, 1758, as type of the genus *Formica* Linnaeus, 1758. At their Meeting in Paris in July 1948 the Commission considered the above application and agreed that Latreille in 1810 made no type selection of *Formica herculeana* as type species of *Formica* within the meaning of Rule (g) in Article 30 of the *Règles* and ruled that under the *Règles* the type species of this genus was *Formica rufa* Linnaeus, 1758, that species having been the first of the originally included species to have been

duly selected by Curtis (1839) and that therefore there was no necessity for the Commission to use their Plenary Powers to designate that species as type of the genus *Formica*. Furthermore, the Commission agreed to place *Formica rufa* Linnaeus, 1758 (type species *Formica rufa* Linnaeus, 1758) on the *Official List of Generic Names in Zoology*, and *rufa* Linnaeus, 1758, as published in the binominal form *Formica rufa*, on the *Official List of Specific Trivial Names in Zoology*. Recent investigation has shown *Formica rufa* Linnaeus, 1758 and *Formica herculeana* to be conspecific, the former a worker, the latter a wingless female of *Camponotus herculeanus* Linnaeus, 1758.

2. If *Formica rufa* Linnaeus, 1758 is to be accepted as the type species of the genus *Formica*, then *Camponotus* Mayr, 1861 is a direct synonym and the very same confusion of world-wide compass, which Benson, Ferrière and Richards set out to avoid must obtain.

3. This confusion can be avoided if the Commission will agree to use their Plenary Powers to place *Formica rufa* Linnaeus, 1758 on the list of permanently rejected names, and on the *Official List of Specific Names in Zoology* to replace *Formica rufa* Linnaeus, 1758 with *Formica rufa* Linnaeus, 1761, the occasion on which Linnaeus first described an individual of the species traditionally known as *Formica rufa*.

STATEMENT OF THE CASE

4. Linnaeus in 1758 (: 580, no. 2) proposed the name *Formica rufa*. The description he gives here agrees with the worker caste of *Camponotus herculeanus* (Linnaeus, 1758) but in no way with *Formica rufa* auctt. The description of the nest, on the other hand, cannot apply to *Camponotus*.

5. Linnaeus in 1761 (: 426, no. 1721) redescribed *Formica rufa* giving a description of the worker in the same words as in 1758 together with descriptions of a male and female and a supplementary description of the same worker.

6. Linnaeus in 1767 (: 962, no. 3) quoted the illustration given by Schaeffer in 1766 (pl. 5, fig. 3) under his *Formica rufa*, thus selecting the worker but not the female illustrated in that plate (fig. 4). There can be no doubt that these illustrations apply to *Camponotus ligniperda* (Latreille, 1802), a species not distinguished from *C. herculeanus* (Linnaeus, 1758) at that time. This shows that Linnaeus still confused *Camponotus* workers with those found in thatched nests, a form of nest never made by *Camponotus*.

7. Latreille in 1802 (: 143) was uncertain as to the identity of *Formica rufa* Linnaeus and deliberately excluded Linnaeus's own description and quotation of Schaeffer's illustration in order to retain

the name for what we now know as "*F. rufa*"; at the same time he felt obliged to point out that he only supposed his "*rufa*" to be the same as the Linnean species though in his opinion it might well be Linnaeus's *herculeana*.

8. Zetterstedt in 1840 (: 488, no. 3 *nec* 450, no. 8 which is a *Myrmica* species) interpreted *F. rufa* Linnaeus as a species now placed in *Camponotus* Mayr, 1861, and an examination of his specimens has shown that both his "*F. rufa* and *F. rufa* var.b." are in fact *Camponotus*.

9. Nylander in 1846 (: 894) placed the worker *F. rufa* Linnaeus, 1761 and *F. rufa* Linnaeus Zetterstedt, 1840, as synonyms of *Formica herculeana* Linnaeus. *F. rufa* Linnaeus Nylander, 1846 (: 902) is based on the male and female of Linnaeus, 1761. This was followed by Forster, 1850 (: 9), Roger, 1863 (: 1, no. 7, note :—misprint ♀ for ♂ cf under *F. rufa* : 12, no. 357). Forel, 1874 (: 96) synonymizes *F. rufa* Linnaeus with *Camponotus herculeanus* and under *Formica* (: 98) quotes "*F. rufa* i. sp. Linné (Faun. Svec.) Latreille. Mayr. Nylander".

10. Nylander in 1846 (: 894) pointed out that *Formica herculeana* Linnaeus, 1761 is a female; in actual fact the description given by Linnaeus in 1758 also must refer to the (dealated) female. In the Linnean Collection at Burlington House, London, there is a specimen which, though unlabelled, could be the type of *herculeana*. Also in the Linnean Collection is a single unlabelled worker of *Camponotus herculeanus* agreeing with the description of *F. rufa*. A third specimen of *Camponotus* is a winged female bearing the label "*herculeanea* [sic] ex desc.". *Formica* (modern sense) in the Linnean Collection is represented by a single worker bearing the label "*rufa* ex descr.", two unlabelled winged females and three unlabelled males. These last five could include the male and female specimens described by Linnaeus in the 2nd. edition of the *Fauna Svecica* (1761) and agree with the somewhat cursory description. The labelled worker on the other hand, does not agree at all with the description of *rufa*, which states "Thorace compresso toto ferrugineo, capite abdomenque nigris" (the thorax is not compressed, the head is not black but red—in fact this specimen is copiously red-marked) and even less with the supplementary description of 1761 which states "... squama intergerina ferruginea, acuminata.", which is typical of the worker of *Camponotus herculeanus* (Linnaeus, 1758), but effectively excludes any known *Formica*. No type of *Formica rufa* has previously been selected.

11. Dalla Torre in 1893 and later authors have disregarded this synonymy of *Formica* and *Camponotus*, indeed Donisthorpe (1927) goes even further and quotes the Linnean description of 1758 under "*Formica rufa*" despite the fact that this description cannot possibly

apply to any known *Formica* (nor in fact to any ant known in the British fauna).

12. It should be noted that Linnaeus intended to refer to the woodland thatch-building ants by his *Formica rufa* since he states in 1758 “*habitat in Europae acervis-acerosis sylvaticis ; in America septentrionali. Kalm,*” but unfortunately selected a superficially similar but in fact abundantly distinct specimen for description. His description of the *rufa* female in 1761 (: 426) removes any doubt on this matter.

13. The International Commission on Zoological Nomenclature at the Paris Meeting, July 1948, having had under consideration an application (file Z.N. (S.) 133) submitted by Mr. R. B. Benson (British Museum (Natural History) London), M. Ch. Ferrière (then of the Commonwealth (at that time Imperial) Institute of Entomology, London), and Dr. O. W. Richards (Imperial College of Science and Technology, London) “that the Commission should use their Plenary Powers to preserve the existing usage of the generic names *Formica* Linnaeus, 1758, and *Camponotus* Mayr, 1861 (Class Insecta, Order Hymenoptera) by cancelling the selection by Latreille (1810) of *Formica herculeana* Linnaeus, 1758, as the type species of the genus *Formica* Linnaeus, 1758 (Benson, Ferrière and Richards, 1947, *Bull. zool. Nomencl.* 1 : 207);” and agreed “to place the undermentioned generic names with the type species severally specified below on the *Official List of Generic Names in Zoology*” :—

Formica Linnaeus, 1758 (type species, by selection by Curtis, 1839 :
Formica rufa Linnaeus, 1758) ;

Camponotus Mayr, 1861 (type species, by selection by Bingham,
1903 ; *Formica ligniperda* Latreille, 1802) ;”

and “to place the undermentioned trivial names on the *Official List of Specific Trivial Names in Zoology*” :—

rufa Linnaeus, 1758, as published in the combination *Formica rufa* ;

ligniperda Latreille, 1802, as published in the combination *Formica ligniperda*”. (1950, *Bull. zool. Nomencl.* 4 : 409—410.)

14. This decision was taken in order to prevent the synonymising of a *Camponotus* with *Formica* and to retain the use of *Formica* in the traditional sense.

15. From the above statement it will be seen that if *Formica rufa* Linnaeus, 1758 is retained for the type of *Formica* Linnaeus, 1758,

then *Camponotus* May, 1861, must be treated as a synonym, the very contingency that the Commission have sought to avoid.

16. As was stated in the original application (Benson, Ferrière and Richards, 1837, *The Generic Names of British Insects*, 5, Hymenoptera Aculeata, *R. ent. Soc. Lond.* : 86 and 1947, *Bull. zool. Nomencl.* 1 : 207) “*Camponotus* and *Formica* in the generally accepted sense are both very large genera of world-wide distribution and any change in their generic nomenclature would cause great confusion.”

RECOMMENDATION

17. It is considered that the best solution of the difficulties discussed above will be for the Commission to direct that the name *Formica rufa* Linnaeus be identified as from the description published in 1761 which undoubtedly refers to the species commonly so known and of which two winged female specimens are preserved in the Linnean Collection at Burlington House, and that this identification should be made by reference to one of those specimens. In order to facilitate the adoption of this proposal, I have selected one of the foregoing specimens to be the lectotype and I hereby publish that selection as follows :—“Of the two unlabelled winged female specimens in the Linnean Collection, one is in better condition than the other, having the full complement of antennae, wings and legs, and this is the specimen which I now select as the lectotype of the foregoing species. I have attached to this specimen the following label for this purpose : “Lectotype of *Formica rufa* Linnaeus, 1761, by selection by I. H. H. Yarrow, 1954”. The specimen stands in Box 192 in Drawer 54. An adequate diagnosis of the female of this species will be found under the synonym *F. piniphila* Schenck in Bondroit, 1918 (: 57)”.

18. The proposals now submitted are :—

- (a) that the name *rufa* Linnaeus, 1758, as published in the combination *Formica rufa*, be permanently suppressed under the Plenary Powers and that under the same powers *Formica rufa* Linnaeus, 1761 (which under the action proposed would become an available name) should be designated the type species of the genus *Formica* Linnaeus, 1758, the nominal species so designated to be interpreted by reference to the winged female specimen in the Linnean Collection at Burlington House which I have selected to be the lectotype ;
- (b) that the name *rufa* Linnaeus, 1761, as published in the combination *Formica rufa*, as validated above and as there interpreted be placed on the *Official List of Specific Names in Zoology* at the same time that the generic name *Formica* Linnaeus, 1758, is placed on the *Official List of Generic Names in Zoology*.

Bibliography

- Benson, Robert B., Ferrière, Charles and Richards, Owen W., 1937. *The Generic Names of British Insects*, 5, Hymenoptera Aculeata, R. ent. Soc. London.
- 1947. *Bull. zool. Nomencl.* 1 : 207
- Bondroit, Jean, 1918. Les Fourmis de France et de Belgique. *Ann. Soc. ent. Fr.* 87 : 1—174
- Dalla Torre, Karl Wilhelm von, 1893. *Catalogus Hymenopterorum* 7 (Formicidae) Leipzig
- Donisthorpe, Horace St. J. K., 1927. *British Ants, Their Life-History and Classification*, 2nd ed. London
- Foerster, Arnold, 1850. Hymenopterologische Studien. *Jahresber. höh Burgerschule Aachen* 1, Formicariae Aachen
- Forel, Auguste, 1874. Les Fourmis de la Suisse. *N. Denschr. allg. Schweiz. Ges. ges. Naturw.* Zürich
- Latreille, Pierre A., 1802. *Histoire Naturelle des Fourmis, et recueil de Mémoires et d'Observations sur les Abeilles, les Araignées, les Faucheurs et autres insectes.* De l'Imprimerie de Crapalet, Paris [XVI] + 455 pp. ; 12 pls.
- Linnaeus, Carolus [Carl von Linné], 1758. *Systema Naturae.* Editio decima, reformata. Stockholm, Laurentii Salvii, vol. 1 (4), 824 pp.
- 1761. *Fauna Svecica.* Editio altera, auctior. Stockholm, Laurentii Salvii (45) + 578 pp. Fp. + 2 pls.
- 1767. *Systema Naturae*, Tom. 1. Pars. II. Editio duodecima reformata. Stockholm, Lavro Salvii. [1] + 794 + [36]
- Mayr, Gustav L., 1861. *Die europäischen Formiciden.* Vienna
- Nylander, William, 1846. De Formicis Borealibus. *Acta Soc. Sci. fenn.* 2 : 875—944, 1 pl.
- Roger, Julius, 1863. Verzeichnis der Formiciden-gattungen und-Arten. *Berl. ent. Z.* 6 (Supplement) : 1—65
- Schaeffer, Jacob Christian, 1766. *Icones Insectorum circa Ratisbonam Indigenorum.* Volume 1, Pars. 1. Regensburg. Frontispiece [10] + 100 pls. + [12] pp.
- Staercke, August, 1947. De boreale vorm van de roode boschmier (*Formica rufa rufa* Nyl.) op de Hooge Veluwe. *Ent. Ber.*, Amst. no. 275 : 144—146
- Zetterstedt, Johanne Wilhelmo, 1840. *Insecta Lapponica.* Leipzig

14. Report supplementary to Dr. Yarrow's application submitted by Mr. Francis Hemming, Secretary to the International Commission : Simultaneously with the submission to the Office of the Commission of Dr. Yarrow's application, Mr. Hemming, Secretary to the International Commission, submitted the Report supplementary thereto which it had been agreed (paragraph 12) should be submitted to the Commission at the same time as Dr. Yarrow's Report :—

“Formica” Linnaeus, 1758 : Report on proposed action under the Plenary Powers to give valid force to the Decision taken by the Commission in Paris : action needed because of circumstances not then known to the Commission

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

The purpose of the present Report is to draw attention to an unexpected difficulty which has arisen in the case of the name *Formica* Linnaeus, 1758 (Class Insecta, Order Hymenoptera), on which a decision was taken in 1948, and to seek a supplementary decision from the Commission, in order to make it possible to prepare the required *Opinion* in this case.

2. This case was submitted to the Commission in August 1937 by the Royal Entomological Society of London on behalf of its Committee on Generic Nomenclature and the Hymenoptera Sub-Committee of that body. The application regarding *Formica* Linnaeus, 1758, had then just been published (1937, *Gen. Names brit. Ins.*, Part 5 : 86). The specialists by whom the application had been drafted were : R. B. Benson ; Ch. Ferrière ; O. W. Richards. In 1947 this application was re-published by the Commission (*Bull. zool. Nomencl.* 1 : 207).

3. In the application submitted, the foregoing specialists asked the Commission to use its Plenary Powers for the purpose of providing a valid foundation for the established usage of the names *Camponotus* Mayr, 1861, and *Formica* Linnaeus, 1758. As the applicants observed, “In the generally accepted sense [these] are both very large genera of world-wide distribution and any change in their generic nomenclature would cause great confusion”. According to the view held by the applicants, the foregoing nominal genera were, under a strict application of the ordinary rules, subjectively identical with one another, since, as it was considered, the type species of *Formica* Linnaeus (by selection by Latreille, 1810) was *Formica herculeana* Linnaeus, 1758, a species currently referred by specialists to the genus *Camponotus* Mayr. The applicants asked that this difficulty should be overcome

by the Commission using its Plenary Powers to designate *Formica rufa*, Linnaeus, 1758, as the type species of the genus *Formica* Linnaeus.

4. The proposed use of the Plenary Powers for the purpose of validating the current usage of the foregoing generic names was advertised in the prescribed manner on 29th September 1947. As was only to be expected, the publication of this notice elicited no objections to the action proposed, no specialist feeling disposed to support the transfer of the name *Formica* Linnaeus to the genus now known as *Camponotus* Mayr.

5. At Paris the Commission did not use its Plenary Powers in this case, for it took the view that the end desired could be obtained without resort to those Powers, for it transpired that the selection by Latreille (1810) of *F. herculeana* Linnaeus, 1758, as the type species of *Formica* Linnaeus was defective and that the first valid type selection for this genus was that by Curtis (1839) who selected *Formica rufa* Linnaeus, 1758, a selection in complete harmony with current usage. Accordingly, the Commission then disposed of this case by placing the name *Formica* Linnaeus, 1758 (with the above species as type species) and *Camponotus* Mayr, 1861 (type species, by selection by Bingham (1903) : *Formica ligniperda* Latreille, 1802) on the *Official List of Generic Names in Zoology* (1950, *Bull. zool. Nomencl.* **4** : 408—410).

6. The complication which has now been brought to notice by Dr. I. H. H. Yarrow (*British Museum (Natural History), London*) in a paper which is being published simultaneously with this Report (1954, *Bull. zool. Nomencl.* **9** : 313—317) is that the accepted interpretation of the nominal species *Formica rufa* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 580) is incorrect. This is due to the fact that since 1893 all authors have followed the incorrect determination of the foregoing nominal species by Dalla Torre, who, in making that interpretation, disregarded the synonymy of *Formica* and *Camponotus* established by previous authors. Dr. Yarrow points out :—

- (1) that the description given by Linnaeus in 1758 for *F. rufa* agrees with the worker caste of what is now known as *Camponotus herculeana* (Linnaeus, 1758) but in no way with the “*Formica rufa*” of authors.
- (2) that Linnaeus in 1761 (*Faun. svec.* (ed. 2) : 426) repeated his 1758 description of the worker but added descriptions of a male and a female and gave a supplementary description of the same worker.
- (3) that Linnaeus in 1767 (*Syst. Nat.* (ed. 12) **1**(2) : 962) added to the reference for *F. rufa* a citation to a figure (Schaeffer, 1766, *Ik. Ins.* **1** : pl. 5, fig. 3) which there can be no doubt represents *Camponotus ligniperda* (Latreille, 1802) ;

- (4) that Latreille in 1802 (*Hist. nat. Fourmis* : 143) expressed doubt as to the identity of *F. rufa* Linnaeus, 1758, and, "in order to retain that name for what we now know as '*F. rufa*,'" deliberately excluded both Linnaeus' own description and the citation by Linnaeus (in 1767) of Schaeffer's plate ;
- (5) that Zetterstedt in 1840 (*Ins. lapp.* : 488, no. 3 *nec* 450, no. 8 (which latter is a *Myrmica*)) interpreted *F. rufa* Linnaeus as a species now placed in the genus *Camponotus* ;
- (6) that Nylander in 1846 (*Act. Soc. Sci. fenn.* 2 : 894) treated *F. rufa* Linnaeus, 1758, as interpreted by Linnaeus in 1761, and also *F. rufa* Linnaeus, as interpreted by Zetterstedt (1840) as synonyms of *Formica herculeana* Linnaeus (i.e. as a *Camponotus*) and in this he was followed by Forster (1850), Roger (1863) and Forel (1874) ;
- (7) that the series of *F. rufa* in the Linnean Collection at Burlington House contains the following representatives of the species currently (but incorrectly) known as "*F. rufa*" ; (i) a single worker labelled "*rufa ex desc.*" ; (ii) two unlabelled winged females ; (iii) three unlabelled males ; that the unlabelled males and females could include the male and female described by Linnaeus in 1761 (these specimens agreeing with the somewhat cursory description then given for *F. rufa*) ; but that the labelled worker does not agree with the 1761 description.

7. Dr. Yarrow points out that the need for preventing the confusion which would follow from the transfer of the name *Formica* Linnaeus to the genus now known as *Camponotus* Mayr is as great as it was when the Benson/Ferrière/Richards proposal was published in 1937. He proposes that the end desired—namely, the provision of a valid basis for the decision taken by the Commission in 1948—should be secured by the use by the Commission of its Plenary Powers (a) to suppress the specific name *rufa* Linnaeus, 1758, as published in the combination *Formica rufa*, and (b) to designate *Formica rufa* Linnaeus, 1761 (which, on the suppression of *Formica rufa* Linnaeus, 1758, would become an available name) to be the type species of the genus *Formica* Linnaeus, 1758, the nominal species so designated to be interpreted by reference to the unlabelled winged female preserved in the Linnean Collection in the series of *Formica rufa* which he has selected to be the lectotype in the event of the Commission approving his present proposals. Dr. Yarrow gives particulars of the distinguishing label which he has attached to the female lectotype—it will be recalled from paragraph 6 (7) above that there are two winged females in the Linnean Collection—and he has furnished also a reference to a description of the lectotype so chosen which sets out the characters shown by that specimen which indisputably show that it is referable to the species currently—but incorrectly—known as *Formica rufa* Linnaeus, 1758.

8. While it is unfortunate that the information now received from Dr. Yarrow was not available at the time when the Commission decided to take such steps as might be necessary to prevent the transfer of the name *Formica* Linnaeus, 1758, to the genus currently known as *Camponotus* Mayr, 1861, the receipt of his communication at the present moment is very timely, for it has made it possible to postpone the preparation of the *Opinion* embodying the decision taken by the Commission on this case until it has been able to consider the additional material now submitted.

9. It is clearly desirable that all outstanding matters connected with the name *Formica* Linnaeus, should now be disposed of and I accordingly asked Dr. Yarrow to furnish particulars of the occasions on which this name has been taken as the basis of a family-group name. In a letter dated 21st October 1954, Dr. Yarrow has kindly furnished the following particulars :—

- 1802. FORMICARIAE (Formicaires) Latreille, 1802, *Histoire naturelle générale et particulière des Crustacés et des Insectes* 3 : 352
- 1805. FORMICARIAE (Formicaires) Latreille, 1805, *ibid.* 13 : 241
- 1809. FORMICARIAE (Formicaires) Latreille, 1809, *Genera Crustaceorum et Insectorum* 4 : 124
- 1810. FORMICARIAE (Formicaires) Latreille, 1810, *Considérations générales sur l'ordre naturel des Animeaux composant les Classes des Crustacés, des Arachnides, et des Insectes* : 311
- 1813. FORMICARIAE, Fallén, 1813, *Specimen Novan Hymenoptera disponendi methodum exhibens* : 7, 40
- 1815. FORMICARIDES, [Leach], [1815] in Brewster's *Edinburgh Encyclopedia* 9 (pt. 11) : 147
- 1819. FORMICADAE Leach, 1819, in Samouelle, *The Entomologist's useful Compendium* : 272
- 1820. FORMICAEDES Billberg, 1820, *Enumeratio insectorum in Museo Gust. Joh. Billberg* : 104.

Dr. Yarrow adds that the first use of the name FORMICIDAE that he has been able to trace is Stephens (J.F.), 1829. *A Systematic Catalogue of British Insects* : 357.

10. On the question of procedure, it appears to me that the most convenient course would be for me to submit for consideration the draft of a Ruling—intended later to be embodied in an *Opinion*—which would include not only (a) the draft of a Ruling giving effect to the request now received from Dr. Yarrow, but also (b) the Rulings agreed upon by Commission at Paris in regard to the remaining aspects of this case. The draft Ruling so prepared is given in an Annexe to the present note. It will be appreciated that it is in Point (1) of the draft Ruling that the action proposed for dealing with Dr. Yarrow's

point is set out and that the remaining Points (Points (2) to (4)) are concerned either with decisions on other aspects of the case decided upon in Paris (Points (2) and (3)) or (Point (4)) deal with matters that are purely consequential upon the acceptance of the recommendation set out in Point (1), if that recommendation is approved.

A N N E X E

Draft of Revised Ruling now submitted for consideration

(1) Under the Plenary Powers, (a) the specific name *rufa* Linnaeus, 1758, as published in the combination *Formica rufa*, is hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy ; (b) the specific name *rufa* Linnaeus, 1761, as published in the same combination, is hereby validated and this name is to be interpreted by reference to the winged female specimen in the Linnean Collection selected to be the lectotype by Yarrow (1954).

(2) The under-mentioned names are hereby placed on the *Official List of Generic Names in Zoology* : (a) *Formica* Linnaeus, 1758 (gender : feminine) (type species, by designation under the Plenary Powers : *Formica rufa* Linnaeus, 1761, as validated and determined in (1) above ; (b) *Camponotus* Mayr, 1861 (gender : masculine) (type species, by selection by Bingham (1903) : *Formica ligniperda* Latreille, 1802).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* : (a) *rufa* Linnaeus, 1761, as published in the combination *Formica rufa* and as validated and determined in (1) above ; (b) *ligniperda* Latreille, 1802, as published in the combination *Formica ligniperda*.

(4) The specific name *rufa* Linnaeus, 1758, as published in the combination *Formica rufa* and as suppressed in (1) above is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology*.

(5) The under-mentioned name is hereby placed on the *Official List of Family-Group Names in Zoology* :—FORMICIDAE (correction of FORMICARIAE) Latreille, [1802—1803*] (first published in the correct form as FORMICIDAE by Stephens (J.F.), 1829) (type genus : *Formica* Linnaeus, 1758).

(6) The under-mentioned names of family-group taxa, of each of which the type genus is *Formica* Linnaeus, 1758, are hereby placed on

* The work in which this name, though dated "An X" in the French Revolutionary Calendar, was not actually published until "An XI". It was therefore published in the period September 1802—September 1803.

the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—(a) FORMICARIDES [Leach], [1815]; (b) FORMICADAE Leach, 1819; (c) FORMICAEDES Billberg, 1820.

15. Publication of Dr. Yarrow's Application and of Mr. Hemming's Report supplementary thereto : Dr. Yarrow's Application and Mr. Hemming's Report supplementary thereto were sent to the printer on 13th October 1954 and were published on 30th December of that year in Part 10 of Volume 9 of the *Bulletin of Zoological Nomenclature* (Yarrow, 1954, *Bull. zool. Nomencl.* 9 : 313—317; Hemming, 1954, *ibid.* 9 : 309—312).

16. Issue of Public Notices in 1954 : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 51—56) Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 30th December 1954 (a) in Part 10 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Yarrow's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to six general zoological serial publications and to seven entomological serials in Europe and America.

17. Comments received : A note of support for Dr. Yarrow's application was received before the publication of his paper from four British entomologists. After publication two further communications were received, one from a British zoologist, the other from a German zoologist. Both these zoologists supported the action proposed by Dr. Yarrow. The foregoing communications are reproduced in the immediately following paragraphs. No objection to the action proposed by Dr. Yarrow was received from any source.

18. Support received from Dr. R. B. Benson (British Museum (Natural History)) and three other British entomologists : On 18th July 1953 Dr. Yarrow (the applicant in the present case) communicated to the Office of the Commission the following note of support for his proposals prepared by the under-mentioned specialists :—(1) R. B. Benson (*British Museum (Natural History), London*) ; (2) G. E. J. Nixon (*Commonwealth Institute of Entomology, London*) ; (3) J. F. Perkins (*British Museum (Natural*

History), London); (4) O. W. Richards (*Imperial College of Science and Technology, London*) (Benson *et al.*, 1954, *Bull. zool. Nomencl.* **9** : 318):—

We strongly support Dr. I. H. H. Yarrow's application for the suppression of *Formica rufa* Linnaeus, 1758 : the retention of *Formica rufa* Linnaeus, 1761 with the type, a female ; and the retention of *Formica* Linnaeus, 1758, with the type species *Formica rufa* Linnaeus, 1761.

19. Support received from Dr. Julian Huxley (London) : On 28th January 1955, Dr. Julian Huxley (*London*) addressed a letter to the Office of the Commission commenting upon a number of then recently published applications, in which he intimated his support for Dr. Yarrow's application as follows (Huxley, 1955, *Bull. zool. Nomencl.* **11** : 232):—

With reference to your notice in *Nature* last week, I write to say that I hope very much that the names . . . *Formica rufa* and *Upogebia* will be validated as suggested, as any change would result in grave inconvenience to working biologists.

20. Support received from Dr. H. Bischoff (Kustos am Zoologischen Museum der Humboldt-Universität, Berlin) : The following note of support by Dr. H. Bischoff (*Kustos am Zoologischen Museum der Humboldt-Universität, Berlin*) for Dr. Yarrow's application was received in the Office of the Commission on 17th February 1955 (Bischoff, 1955, *Bull. zool. Nomencl.* **11** : 255):—

I strongly support Dr. I. H. H. Yarrow's application for the suppression of *Formica rufa* Linnaeus, 1758 ; the retention of *Formica rufa* Linnaeus, 1761 with the type, a female ; and the retention of *Formica* Linnaeus, 1758, with the type species *Formica rufa* Linnaeus, 1761.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

21. Issue of Voting Paper V.P.(55)9 : On 5th August 1955, a Voting Paper (V.P.(55)9) was issued in which the Members

of the Commission were invited to vote either for, or against, "the proposal relating to the name for the type species of the genus *Formica* Linnaeus, 1758, and matters associated therewith as set out in the Draft Ruling given on page 312 of volume 9 of the *Bulletin of Zoological Nomenclature*" [i.e. in the Draft Ruling annexed to the paper reproduced in paragraph 14 of the present *Opinion*].

22. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 5th November 1955.

23. Particulars of the Voting on Voting Paper V.P.(55)9 : At the close of the Prescribed Voting Period, the state of the voting Paper V.P.(55)9 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Riley ; Vokes ; Stoll ; Hering ; Bradley (J.C.) ; Lemche ; Prantl ; Hankó ; Mayr ; do Amaral ; Esaki ; Kühnelt ; Dymond ; Key ; Mertens ; Bonnet ; Hemming ; Jaczewski ; Miller ; Sylvester-Bradley ; Cabrera ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned, two (2) :*

Boschma ; Tortonese³.

24. Declaration of Result of Vote : On 5th November 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55)9, signed a Certificate that the Votes cast were as set out

³ After the close of the Prescribed Voting Period late affirmative votes were received from Commissioner Boschma and from Commissioner Tortonese.

in paragraph 23 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

25. Preparation of the Ruling given in the present "Opinion" : On 7th March 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)9.

26. Original References : The following are the original references for the generic and specific names placed on the *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Camponotus Mayr (G.L.), 1861, *Die europ. Formiciden* : 10, 25, 35

Formica Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 579

ligniperda, *Formica*, Latreille, 1802, *Hist. nat. Fourmis* : 88

rufa, *Formica*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 580

rufa, *Formica*, Linnaeus, 1761, *Fauna svec.* (ed. 2) : 426

27. The following is the reference for the selection of a type species for the genus *Camponotus* Mayr, 1861, specified in the Ruling given in the present *Opinion* :—Bingham, 1903, *Fauna brit. India*, Hymen. **2** : 347.

28. The following are the original references for the family-group names placed on the *Official List* and *Official Index* of names of that category by the Ruling given in the present *Opinion* :

FORMICADAE Leach, 1819, in Samouelle, *The Entomologist's useful Compendium* : 272

FORMICAEIDES Billberg, 1820, *Enumeratio Ins. Mus. Billberg.* : 104

FORMICARIAE Latreille, [1802—1803], *Hist. nat. gén. partic. Crust. Ins.* **3** : 352

FORMICARIDES [Leach], [1815], in Brewster's *Edinburgh Ency.* 9(1) : 147

FORMICIDAE Stephens (J.F.), 1829, *Syst. Cat. brit. Ins.* : 357 (correction of FORMICARIAE Latreille, [1802—1803]).

29. At the time of the submission of the present application the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

30. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

31. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-Four (424) of the International Commission on Zoological Nomenclature.

DONE in London, this Seventh day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

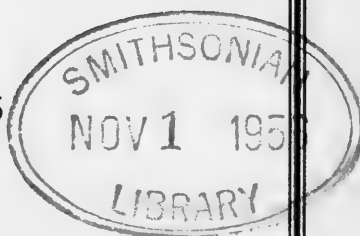
**OPINIONS AND DECLARATIONS
RENDERED BY THE INTER-
NATIONAL COMMISSION ON
ZOOLOGICAL NOMENCLATURE**

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 9. Pp. 243—256



OPINION 425

*Addition to the Official Index of Rejected and Invalid
Generic Names in Zoology of the name Palmatotriton
Smith (H.M.), 1945 (Class Amphibia)*

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 425

A. The Officers of the Commission

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Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*
(12th August 1953))

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(*arranged in order of precedence by reference to date of election or of most recent re-election
as prescribed by the International Congress of Zoology*)

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(1st January 1947)

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Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th
July 1948)

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Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw,
Poland*) (15th June 1950)

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a.M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu
Berlin, Germany*) (5th July 1950)

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Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation,
Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*)
(29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th
October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*)
(6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November
1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge,
Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*)
(16th December 1954)

OPINION 425

ADDITION TO THE "OFFICIAL INDEX OF REJECTED AND INVALID GENERIC NAMES IN ZOOLOGY" OF THE NAME "PALMATOTRITON" SMITH (H.M.), 1945 (CLASS AMPHIBIA)

RULING :—(1) It is hereby ruled that under Proviso (c) to Article 25, as amended by Decision 109 by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the generic name *Palmatotriton* Smith (H.M.), 1945, is to be treated as having been published without the minimum indication required by the foregoing Proviso, so amended, and therefore that this name, as so published, did not acquire the status of availability.

(2) The under-mentioned generic name is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name No. 526 : *Palmatotriton* Smith (H.M.), 1945 (Class Amphibia) (a name rejected under (1) as having been published without an "indication").

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 949 : *rufescens* Cope, 1869, as published in the combination *Oedipus rufescens*.

I. THE STATEMENT OF THE CASE

On 25th July 1951 Dr. Hobart M. Smith (*University of Illinois, Urbana, Illinois, U.S.A.*) addressed a communication to the

Office of the International Commission on Zoological Nomenclature regarding the generic name *Palmatotriton* which had been used by himself in a popular article published in 1945 at a time when he believed that this name had recently been published by a fellow-worker. Dr. Smith expressed the view that means should be found for rejecting this name which it had never been his intention to publish as a new name. Ultimately after correspondence with the Secretary, Dr. Smith on 6th February 1952 submitted the following application to the Commission asking it to use its Plenary Powers to suppress the foregoing generic name :—

**Proposed use of the Plenary Powers to suppress “*Palmatotriton*”
Smith, 1945 (Class Amphibia, Order Caudata)**

By HOBART M. SMITH

(Department of Zoology, University of Illinois, Urbana, Illinois, U.S.A.)

In a popular article (“Herpetological Collecting in Banana Fields of Mexico”) published in Volume 19, number 1, 1945, page 4 of Ward’s *Natural Science Bulletin* (a widely distributed and regularly published journal of Ward’s Natural Science Establishment, Rochester, New York) there appeared for the first time the generic name *Palmatotriton*. This name occurs in the following verbatim context: “Commonest in central Veracruz are the salamanders especially *Palmatotriton rufescens*, a small, broad-footed species about two inches long. This species is incredibly common, generally several occurring under each stalk. Yet, before this habitat and method of hunting was discovered, the species was considered to be rather rare, for only seven specimens were known from Mexico and thirteen from all other countries within range!”

2. As author of that article and of the passage quoted, I know the species referred to is the one now recognised (by Smith and Taylor, 1948, *Bull. U.S. nat. Mus.* **194** : 23 ; *et al.*) as *Bolitoglossa rufescens* (Cope), originally described as *Oedipus rufescens* Cope, 1869 (*Proc. Acad. nat. Sci. Philad.* **21** : 104). The specific name has been cited under no other combination, so far as we are aware.

3. To other authors it may be equally as apparent as to me that the species referred to is the one cited above, but this is true only because of their knowledge of esoteric information: they know the fauna of central Veracruz, or the habitat of the species, or which species in that area would be two inches long and broad-footed (no other is), or

which species having these characteristics was known at the time of the last monograph prior to 1945 (Dunn, *Salamanders of the Family Plethodontidae*, 1926, p. 418) from only seven Mexican and thirteen non-Mexican specimens.

4. The name *Palmatotriton* was used under the erroneous impression that it was to be published prior to the date this article appeared by another author who at one time intended that it should be used for the group of species to which *rufescens* Cope belongs, as distinct from other species now included with *rufescens* in *Bolitoglossa*. That author later, unknown to me, determined not to segregate generically *rufescens* and its relatives from *Bolitoglossa*.

5. That it was my intent in 1945 to utilise a name already available, and definitely not to anticipate the other author's use, is not itself of significance although if decision on the status of the name were not clearly indicated, intent might justifiably be considered. The status of the name is, on the contrary, clearly indicated.

6. Mr. Francis Hemming has pointed out, in reply to my query on this matter, that "under the amendment of Article 25 adopted by the Tenth International Congress of Zoology at Budapest in 1927 (which came into operation as from 1st January 1931) a name published in the way in which the name *Palmatotriton* was published would have possessed no availability, for no type species was designated for this genus. This portion of Article 25 was, however, considered further by the Thirteenth International Congress of Zoology at Paris in 1948 in the light of representations which had been received by the International Commission on Zoological Nomenclature that to refuse availability on the foregoing ground to a generic name published for a genus for which one species only was cited was unduly legalistic. The Paris Congress decided to modify the decision of the Budapest Congress in such a way as to confer availability upon a generic name published after 31st December 1931 for a monotypic genus even if no type species was explicitly designated by the original author of the generic name in question (see 1950, *Bull. zool. Nomencl.* 4 : 72). The Paris Congress decided further to include in the *Règles* a provision making it clear that a nominal genus established with only one cited species is to be treated as a monotypical genus (1950, *ibid* 4 : 153). We see therefore that under the *Règles*, the generic name *Palmatotriton* must be regarded as having been validly published—though inadvertently and in an irregular manner—as from Smith, 1945, for it was provided with an "indication" for the purposes of Article 25 by having been published with an "indicated" type species (by monotypy). It is true that no author's name was cited for the species indicated as type species under the name *Palmatotriton rufescens* and that a certain amount of specialised knowledge is necessary in order to identify that species with the nominal species *Oedipus rufescens* Cope, 1869, but this

cannot be held out as an argument against the availability of the generic name *Palmatotriton*, for zoological literature abounds with instances of generic names—some of them extremely well-known names in very common use—which were published with cited species for which no author's names were given by the original author of the name. Moreover, it is impossible to point to any provision in the *Règles* which would give any colour to the contention that a generic name so published does not possess availability”.

7. In the foregoing circumstances the name *Palmatotriton* Smith, 1945, cannot legitimately be regarded either as a *nomen nudum* or as a *nomen dubium*. On the other hand, the name was published inadvertently and it could not fail to give rise to confusion if it were permitted to retain availability for nomenclatorial purposes. It is accordingly recommended that, in order to avoid this undesirable situation from arising, the International Commission on Zoological Nomenclature should use its Plenary Powers to suppress this name altogether. This name would then become available for use by any later author either as the name for a genus containing *Oedipus rufescens* Cope or in any other sense. It is suggested also that it would be convenient to take the present opportunity to place on the *Official List of Specific Names in Zoology* the specific name *rufescens* Cope, 1869, as published in the combination *Oedipus rufescens*, that name being the oldest available specific name of an extremely common and well-known species of salamander.

8. The proposal now submitted is that the International Commission on Zoological Nomenclature should :—

- (1) use its Plenary Powers to suppress the generic name *Palmatotriton* Smith, 1945, for the purposes both of the Law of Priority and of the Law of Homonymy ;
- (2) place the name *Palmatotriton* Smith, 1945, as proposed under (1) above, to be suppressed under the Plenary Powers, on the *Official Index of Rejected and Invalid Generic Names in Zoology* ;
- (3) place the specific name *rufescens* Cope, 1869, as published in the combination *Oedipus rufescens*, on the *Official List of Specific Names in Zoology*.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of Dr. Hobart M. Smith's preliminary communication in 1951

the question of the status to be assigned to the generic name *Palmatotriton* Smith was allotted the Registered Number Z.N.(S.) 594.

3. Publication of the present application : The present application was sent to the printer before the meeting in Copenhagen in July 1953 of the Fourteenth International Congress of Zoology but owing to the preoccupation of the Office of the Commission first with the preparations for that Congress and later with the publication of the work *Copenhagen Decisions on Zoological Nomenclature* that it was not until 11th May 1954 that this paper was published in Part 8 of volume 9 of the *Bulletin of Zoological Nomenclature* (Smith, 1954, *Bull. zool. Nomencl.* **9** : 247—249).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56) Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 11th May 1954 (a) in Part 8 of volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which the present application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to one specialist serial.

5. Comments received : Two comments were received in the present case. The first of these comments came from an entomologist who was interested in this case only from the point of view of the question of principle involved and who took the view that the name *Palmatotriton* Smith, 1949, was an invalid name and had always been so and therefore that the use of the Commission's Plenary Powers was not necessary to secure the rejection of this name. The second comment was from a specialist in the group concerned who supported the action recommended in the present application. The communications so received are reproduced in the immediately following paragraphs.

6. Comment received from Dr. Curtis W. Sabrosky (United States Department of Agriculture, Agricultural Research Service, Entomology Research Branch, Washington, D.C., U.S.A.) : On 9th July 1954 Dr. Curtis W. Sabrosky (*United States Department*

of Agriculture, Agricultural Research Service, Entomology Research Branch, Washington, D.C., U.S.A.) communicated the following comment on the present case to the Office of the Commission (Sabrosky, 1954, *Bull. zool. Nomencl.* 9 : 286) :—

Although I am not a herpetologist, I am prompted by the general principle involved to comment on Hobart M. Smith's "Proposed Use of the Plenary Powers to Suppress *Palmatotriton* Smith 1945" (*Bull. zool. Nomencl.* 9 : 247—249).

It was specifically to prevent the validation of names in such an inadvertent manner (cf. Minutes of Nomenclature Section of the Budapest Congress) that Article 25 was amended at Budapest in 1927, not only by requiring, for generic names, the designation of a genotype (Article 25, c. 3) but also by requiring (Article 25, c.1) a summary of characters for the taxon concerned.

It appears to me that the latter proviso is the critical one in the case of *Palmatotriton*. The article in question contains no summary of the characters of the genus *Palmatotriton*, nor is the latter published "with a statement in words indicating the characters of the genus . . . concerned" (*Bull. zool. Nomencl.* 4 : 71, revised wording for proviso 1). The species *rufescens* is briefly described as a "small, broadfooted species about two inches long" but there is no generic characterization.

Accordingly, I do not believe that *Palmatotriton* has any status as of Smith (1945). To give it any recognition, by using the Plenary Powers to suppress it, would in my opinion be a retrogressive step in our long struggle to raise the level of taxonomic work.

7. Comment received from Professor Robert Mertens (Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a. Main, Germany) : On 22nd July 1954 Professor Robert Mertens (*Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a. M.*) communicated to the Commission the following statement in support of the present application (Mertens, 1954, *Bull. zool. Nomencl.* 9 : 286) :—

Mit den von Dr. H. M. Smith auf p. 249 des 1954, *Bull. zool. Nomencl.* 9, 8 veröffentlichten drei Vorschlägen über die Gattung *Palmatotriton* Smith, 1945, und den Species-Namen *rufescens* Cope, 1869, bin ich durchaus einverstanden.

8. Supplementary Report submitted by the Secretary in December 1955 : In November 1954 there was issued to the Members of the Commission a Voting Paper (V.P.(54)96) in

which particulars were given of the comments received in the present case and a decision invited on the action recommended in the application submitted in 1952. From comments received from certain of the Members of the Commission during the Prescribed Voting Period on the foregoing Voting Paper Mr. Hemming as Secretary reached the conclusion that in view of the fact that the premises on which the application in this case was based, though correct at the time when this application was prepared, had been rendered out of date by a decision subsequently taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, it was desirable that the Commission should have an opportunity of re-examining this case in the light of the decision taken by the foregoing Congress, notwithstanding the fact that that Congress had protected work then in progress and therefore that it would have been within the power of the Commission to deal with this case on the basis of the proposals submitted with the Voting Paper referred to above. The point at issue was solely one of procedure, namely whether, in order to secure the object sought by the applicant, the Commission would need to use its Plenary Powers as would have been necessary before the Copenhagen Congress or whether the use of the above Powers would no longer be required. Accordingly, on 21st February 1955 Mr. Hemming placed on the Commission's File Z.N.(S.) 594 a Minute (1) withdrawing the proposals submitted with Voting Paper V.P.(54)96, and (2) directing that this case be re-submitted to the Commission with an explanatory note drawing attention to the change which had occurred in the situation as regards this case as the result of the action of the Copenhagen Congress. In accordance with the foregoing direction Mr. Hemming on 13th December 1955 submitted to the Commission the following paper containing revised proposals for dealing with this case :—

Proposal for the adoption of a revised procedure for dealing with application Z.N.(S.) 594 in regard to the generic name "Palmatotriton" Smith (H.M.), 1945 (Class Amphibia)

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

I am sorry to have to trouble the Commission again with the intrinsically unimportant case of the generic name *Palmatotriton* Smith

(H.M.), 1945 (Class Amphibia), but I consider this to be desirable for the reasons explained briefly below.

2. This case was submitted by Professor Hobart M. Smith whose application was published on 11th May 1954 in Part 8 of volume 9 of the *Bulletin of Zoological Nomenclature* (Smith, 1954, *Bull. zool. Nomencl.* 9 : 247—249). It is sufficient here to recall as follows the salient facts in this case :—

- (1) Professor Hobart M. Smith's application had as its object the suppression under the Plenary Powers of a generic name (*Palmatotriton*) which had been used by him in combination with the specific name *rufescens* in a paper of his published in 1945 in a semi-popular serial publication issued from Rochester, New York State.
- (2) In using the name *Palmatotriton*, in the foregoing paper Professor Smith did so in the belief that that name, which he knew had been proposed by a colleague as the name of a new genus for *Oedipus rufescens* Cope, 1869, had actually been published in this sense. This belief was ill-founded and in fact Professor Smith's paper was the first occasion on which this name appeared in print.
- (3) When Professor Smith realised that he had inadvertently published the name *Palmatotriton* which his colleague by whom this name had been proposed in manuscript had later—as he then learnt—decided not to publish, he decided to ask the Commission to restore the *status quo ante* by suppressing the above generic name under its Plenary Powers. Accordingly, in February 1952 Professor Smith submitted to the Commission the application Z.N.(S.) 594, with which the present paper is concerned.
- (4) Under the *Règles* as existing at the time when this application was submitted by Professor Smith, that is to say, under the provisions of Proviso (c) to Article 25, inserted in the *Règles* by the Budapest Congress of 1927, as liberalised by the Paris Congress of 1948, the name *Palmatotriton* Smith was an available name, since it had a type species (*Palmatotriton rufescens*) "indicated" by monotypy. (The question whether the nominal species *Palmatotriton rufescens* was recognisable or whether the name so published was a *nomen dubium* was naturally a matter of taxonomic judgment only and a matter which did not in any way affect the nomenclatorial availability either of the specific name *rufescens* or of the generic name *Palmatotriton*). Thus, at the date of the submission of Professor Smith's application the only way of depriving the name *Palmatotriton* of the status of availability as from 1945 which it had acquired through having been published by Professor

Smith was by the use by the Commission of its Plenary Powers to suppress it for nomenclatorial purposes.

3. Although (as explained in the preceding paragraph) the premises upon which Professor Smith's application was based were perfectly valid at the time when that application was submitted, the position was changed later by a decision taken in 1953 by the Fourteenth International Congress of Zoology, Copenhagen. The decision in question is Decision 109 (1953, *Copenhagen Decisions zool. Nomencl.* : 61) which provides that, in order to acquire the status of availability, a new generic or specific name published after 31st December 1930 must be accompanied "with a statement in which the author of the name attempts to indicate differentiating characters for the genus, species or subspecies concerned".

4. When in the beginning of 1954 it was possible to arrange for the publication of Professor Smith's application in the *Bulletin of Zoological Nomenclature*, I considered the question whether it was necessary first to suggest to Professor Smith that he should revise his application in the light of the Copenhagen Congress' decision quoted in the preceding paragraph. The decisions on nomenclature taken by that Congress were not then (and are not now) technically in force (1953), *Copenhagen Decisions zool. Nomencl.* 103, Decision 196) but the Congress had instructed the Commission to conduct its day-to-day work upon the basis of those decisions (*ibid.* : 103, Decision 199). Accordingly, if at the time when the question of sending this case to the printer came to be considered, that had been a new application, I should certainly have thought it necessary to ask him to revise the form of his application. I took the view, however, that, as this was a case in progress at the time of the Copenhagen Congress, it was covered by the general principle that decisions by that Congress were not to be allowed to upset work already done by the Commission in individual cases. I therefore decided that it was not necessary to ask Professor Smith to revise his application and I thereupon arranged for its publication in the form in which it had been submitted. Since publication I have, however, received communications from two specialists who have taken the view that, having regard to the decision of the Copenhagen Congress discussed above, the use of the Plenary Powers to suppress the name *Palmatotriton* Smith, 1945, if not actually unnecessary, would be liable to be confusing to zoologists, since under the foregoing decision, the use of the Plenary Powers would not be required.

5. In these circumstances I have decided to withdraw Voting Paper V.P.(54)96 and with it the proposals in regard to the name *Palmatotriton* Smith, 1945, as set out in Points (1) to (3) on page 249 of volume 9 of the *Bulletin of Zoological Nomenclature*. In place of the proposals so withdrawn I now submit revised proposals for the consideration of

the Commission. The general effect of the revised proposals is exactly the same as that of the proposals originally submitted, the only difference being that under those proposals it was recommended (as was then necessary) that the Plenary Powers should be used, whereas now (under the Copenhagen decision quoted in paragraph 3 above) the desired object can be attained without the use of those Powers. The revised proposals now submitted are that the Commission should :—

- (1) give a Ruling that under the provisions of Proviso (c) in Article 25, as amended (by Decision 109) by the Fourteenth International Congress of Zoology, Copenhagen, 1953, subsequent to the submission of Application Z.N.(S.) 594 the generic name *Palmatotriton* Smith, 1945, which formed the subject of that application, is to be treated as having been published without the minimum "indication" required by that Proviso, amended as specified above ;
- (2) place the under-mentioned generic name on the *Official Index of Rejected and Invalid Generic Names in Zoology* : *Palmatotriton* Smith (H.M.), 1945 (a name rejected under (1) above as not having been published with an "indication") ;
- (3) place the under-mentioned specific name on the *Official List of Specific Names in Zoology* : *rufescens* Cope, 1869, as published in the combination *Oedipus rufescens*.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

9. Issue of Voting Paper V.P.(O.M.)(55)39 : On 13th December 1955 a Voting Paper (V.P.(O.M.)(55)39) was issued in which the Members of the Commission were invited to vote either for, or against, "the adoption of the proposal relating to the generic name *Palmatotriton* Smith, 1945, set out in paragraph 5 of the note by the Secretary bearing the Number Z.N.(S) 594 submitted simultaneously with the present Voting Paper" [i.e. in the paragraph numbered as above in the Supplementary Report reproduced in paragraph 8 of the present *Opinion*].

10. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period would normally have closed on 13th January 1956.

In view, however, of the possibility of delays in overseas mails consequent upon the abnormally heavy traffic at Christmas time, the Secretary on 13th December 1955 executed a Minute extending the Prescribed Voting Period on the above Voting Period from one calendar month to six weeks. Under this direction the Prescribed Voting Period on Voting Paper V.P. (O.M.)(55)39 closed on 24th January 1956.

11. Particulars of the Voting on Voting Paper V.P.(O.M.)(55)39 :

At the close of the Prescribed Voting Period, extended to the date specified in paragraph 10 above, the state of the voting on Voting Paper V.P.(O.M.)(55)39 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-five (25) Commissioners (arranged in the order in which Votes were received) :*

Mertens ; Lemche ; Hering ; Prantl ; Bodenheimer ;
Holthuis ; Vokes ; do Amaral ; Mayr ; Hankó ; Key ;
Riley ; Esaki ; Jaczewski ; Boschma ; Dymond ;
Bradley (J.C.) ; Sylvester-Bradley ; Stoll ; Cabrera ;
Kühnelt ; Bonnet ; Miller ; Tortonese ; Hemming ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned :*

None.

12. Declaration of Result of Vote : On 24th January 1956, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(55)39, signed a Certificate that the Votes cast were as set out in paragraph 11 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

13. Preparation of the Ruling given in the present “ Opinion ” : On 8th March 1956 Mr. Hemming prepared the Ruling given in

the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(O.M.)(55)39.

14. Original References : The following are the original references for the names placed on the *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :

Palmatotriton Smith (H.M.), 1945, Ward's *Nat. Sci. Bull.* 19(1) : 4

rufescens, *Oedipus*, Cope, 1869, *Proc. Acad. nat. Sci. Philad.* 21 : 104

15. Family-Group-Name Aspect : No family-group-name problem arises in the present case.

16. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

17. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-Five (425) of the International Commission on Zoological Nomenclature.

DONE in London, this Eighth day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 10. Pp. 257—280

OPINION 426

Designation under the Plenary Powers of type species in harmony with accustomed usage for the genera *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913 (Class Cephalopoda, Order Ammonoidea) (Jurassic)

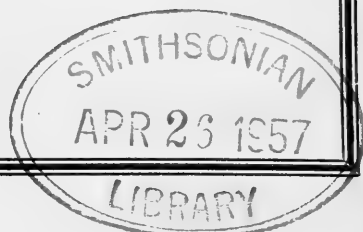
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 426

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Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

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Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology)

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Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria," Genova, Italy*)
(16th December 1954)

OPINION 426

DESIGNATION UNDER THE PLENARY POWERS OF TYPE SPECIES IN HARMONY WITH ACCUSTOMED USAGE FOR THE GENERA "PICTONIA" BAYLE, 1878, AND "RASENIA" SALFELD, 1913 (CLASS CEPHALOPODA, ORDER AMMONOIDEA) (JURASSIC)

RULING :—(1) Under the Plenary Powers all designations, indications or selections of type species for the under-mentioned genera are hereby set aside and the species specified below are hereby designated to be the type species of the genera in question :—

- (a) To be the type species of *Pictonia* Bayle, 1878 :
Pictonia baylei Salfeld, 1913, a nominal species based upon the specimen figured under the incorrect name *Pictonia cymodoce* d'Orbigny by Bayle on plate lxvi in 1878 when establishing the nominal genus *Pictonia* ;
- (b) To be the type species of *Rasenia* Salfeld, 1913 :
Rasenia involuta (Salfeld MS.) Spath, 1935, as represented by figs. 5a and 5b on Spath's plate 10.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers 1019 and 1020 respectively :—

- (a) *Pictonia* Bayle, 1878 (gender : feminine) (type species by designation under the Plenary Powers, under (1)(a) above and as there interpreted : *Pictonia baylei* Salfeld, 1913) ;

- (b) *Rasenia* Salfeld, 1913 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b) above and as there interpreted : *Rasenia involuta* Spath, 1935).

(3) It is hereby directed that the nominal species *Ammonites cymodoce* d'Orbigny, 1850, is to be interpreted by the lectotype selected therefor by Tornquist in 1896, that is, by the specimen illustrated by d'Orbigny as figures 3 and 4 on his plate 202.

(4) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below :—

- (a) *baylei* Salfeld, 1913, as published in the combination *Pictonia baylei* and as interpreted in (1)(a) above (specific name of type species of *Pictonia* Bayle, 1878) (Name No. 1036) ;
- (b) *involuta* Spath, 1935, as published in the combination *Rasenia involuta* and as interpreted in (1)(b) above (specific name of type species of *Rasenia* Salfeld, 1913) (Name No. 1037) ;
- (c) *cymodoce* d'Orbigny, 1850, as published in the combination *Ammonites cymodoce* and as interpreted in (3) above (Name No. 1038).

I. THE STATEMENT OF THE CASE

Application submitted by Dr. W. J. Arkell : On 13th June 1949, Dr. W. J. Arkell (*Sedgwick Museum, Cambridge University, Cambridge*) submitted to the International Commission on

Zoological Nomenclature an application in which he asked for the use of the Plenary Powers for the purpose of designating type species in harmony with current practice for the genera *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913 (Class Cephalopoda, Order Ammonoidea). The problems involved were of considerable complexity and necessitated correspondence between the Secretary and the applicant. This led to an agreement under which Dr. Arkell would revise his application in certain respects, while Mr. Hemming as Secretary to the Commission would add a supplementary note on certain of the purely nomenclatorial problems involved. The terms of these documents were settled on 10th September 1950, on which date the following paper was submitted by Dr. Arkell :—

**Proposed designation under the Plenary Powers, of the type species,
of “*Pictonia*” Bayle, 1878, and “*Rasenia*” Salfeld, 1913
(Class Cephalopoda, Order Ammonoidea) (Jurassic)**

By W. J. ARKELL, M.A., D.Sc., F.R.S.
(*Sedgwick Museum, Cambridge University*)

1. The generic name *Pictonia* Bayle, 1878 (: pl. lxvi) was published in explanation of a plate only, with the legend “*Pictonia cymodoce* d’Orbigny”. The figure so referred to showed accurately a species differing from *Ammonites cymodoce* d’Orbigny, 1850 (: pl. 202). The Text of Bayle’s work was never published. The species so figured by Bayle was named *Pictonia baylei* by Salfeld in 1913 (: 423).

2. Salfeld (1917 : 73) selected *Pictonia baylei* Salfeld, 1913, as the type species of the genus *Pictonia* Bayle, and this selection has been generally followed by subsequent workers. Under the decision taken by the Thirteenth International Congress of Zoology in 1948, when incorporating in the *Règles* the substance of *Opinion* 168, the type species of *Pictonia* is the nominal species *Ammonites cymodoce* d’Orbigny, 1850, whatever that species may be, unless the Commission uses its Plenary Powers to designate some other species as the type species (1950, *Bull. zool. Nomencl.* 4 : 158—159). The nominal species *Ammonites cymodoce* d’Orbigny was based by its author on two syntypes, of which one, the larger, he figured as figs. 1 and 2 on his plate 202, while the other (i.e. the smaller syntype) he figured as figs. 3 and 4 on the same plate. Tornquist (1896 : 8) recognised that these two syntypes were not conspecific. He thereupon selected the smaller one (i.e. d’Orbigny’s figs. 3 and 4) as the lectotype of *Ammonites*

cymodoce d'Orbigny, at the same time making d'Orbigny's larger syntype (figured by d'Orbigny as figs. 1 and 2 on plate 202) the holotype of a new nominal species to which he gave the name *Pictonia orbignyi*. Thus, under the *Règles*, the type species of the genus *Pictonia* Bayle is the species figured by d'Orbigny in his figs. 3 and 4 on plate 202.

3. Lemoine (1904 : no. 55) re-figured what he claimed to be d'Orbigny's syntypes of *Ammonites cymodoce*. The larger specimen is clearly the one represented in d'Orbigny's larger figures, figs. 1 and 2 (the type specimen of *Pictonia orbignyi* Tornquist), but the smaller specimen figured by Lemoine differs in many respects from d'Orbigny's smaller figures, figs. 3 and 4 (lectotype of *cymodoce*) and it seems very doubtful whether the specimen has been correctly identified (see Arkell, 1935 : 250). The species *A. cymodoce* d'Orbigny therefore rests on insecure foundations and is unsuitable as the type species of a genus.

4. In 1913 Salfeld (1913 : 249) founded the genus *Rasenia*, with type species by original designation *A. cymodoce* d'Orbigny, as represented by the larger figures only (figs. 1 and 2). But under the decision taken by the Thirteenth International Congress of Zoology in 1948, referred to in paragraph 2, the type species of *Rasenia* is the nominal species *A. cymodoce* d'Orbigny, which by Tornquist's selection of 1896 (see paragraph 2 above) was fixed on d'Orbigny's figs. 3 and 4. Moreover, the specimen represented in d'Orbigny's figs. 1 and 2 was already the holotype of *Pictonia orbignyi* Tornquist, 1896 (see para. 2 above).

5. From Salfeld's writings it seems certain that his designation of d'Orbigny's figs. 1 and 2 as representing the type species of *Rasenia* was a slip, for his use of the genus *Rasenia* shows clearly that what he had in mind was d'Orbigny's figs. 3—4 (i.e., the lectotype specimen of *A. cymodoce*), not figs. 1 and 2, which he would have called *Pictonia orbignyi* Tornquist ; and he says of *Rasenia* " Another characteristic species is *Ammonites uralensis* d'Orbigny " (1845), which closely resembles d'Orbigny's (1850) figs. 3 and 4 but not figs. 1 and 2.

6. So apparent is Salfeld's intention in all his writings that the latest monographer (Schneid, 1940 : 79) has asserted that Salfeld did select d'Orbigny's figs. 3—4 as representing the type species of *Rasenia*. Unfortunately it requires more than this assertion to correct Salfeld's error.

7. As the Rules stand, therefore, *A. cymodoce* d'Orbigny (1850, figs. 3—4) is type species of both *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913. Since the type specimen is doubtful, this species is unsuitable to be type species of any genus (see paragraph 3 above), and the Commission is now asked to designate new type species for both genera.

8. The obvious type species for *Pictonia* is the one already widely accepted as such, namely, *Pictonia baylei* Salfeld. A suitable type species for *Rasenia* is less obvious. *A. uralensis* d'Orbigny (1845 : 429, pl. xxxii) would be suitable, but that the smaller, young, individual in d'Orbigny's figs. 8 and 9 has been selected as lectotype of this species by R. Douvillé (1911, n. 210) and it is so small that it leaves the nature of the species in doubt. In view of this the best choice is another species assigned by Salfeld himself to *Rasenia*, though not published until much later : namely, *Rasenia involuta* (Salfeld MS.) in Spath (1935 : 48, pl. 10, figs. 5a, 5b). This is close to the larger figured example of *A. uralensis* d'Orb. (1845, figs. 6—7) and has the advantage of having come from the brickpits in the Lower Kimeridge Clay of Market Rasen, Lincolnshire, after which the genus was named *Rasenia*.

9. I therefore recommend that, in order to avoid the confusion which otherwise is inevitable, the International Commission on Zoological Nomenclature should use their Plenary Powers to set aside all existing type designations or type selections for the under-mentioned genera and to designate as their respective type species the species specified below :—

Pictonia Bayle, 1878 : type species to be *Pictonia baylei* Salfeld, 1913 (based on Bayle, 1878 : pl. lxvi, from the lower Kimeridgian of Normandy) (gender of generic name : feminine).

Rasenia Salfeld, 1913 : type species to be *Rasenia involuta* (Salfeld MS.) Spath (1935 : 48, pl. 10, figs. 5a, 5b, from the Lower Kimeridge Clay of Market Rasen, Lincolnshire) (gender of generic name : feminine).

10. Consequential upon the adoption of the foregoing recommendation, the Commission are asked to place on the *Official List of Generic Names in Zoology* the generic names *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913, and on the *Official List of Specific Trivial Names in Zoology* the trivial names *baylei* Salfeld, 1913, as published in the combination *Pictonia baylei*, and *involuta* (Salfeld MS.) Spath, 1935, as published in the combination *Rasenia involuta*.

References :

- Arkell, W. J., 1935. "On the Lower Kimeridgian ammonite genera *Pictonia*, *Rasenia*, *Aulacostephanus*, and *Ataxioceras*". *Geol. Mag.*, **72** : 246
- Bayle, E., 1878. Explic. Carte géol. France, **4** : Atlas
- Douvillé, R., 1911: *Palaeontologia Universalis*
- Lemoine, E., 1904. *ibid.*
- Orbigny, A. d', 1845. *Géologie de la Russie d'Europe*

- Orbigny, A. d', 1850. *Paléontologie Française, Terrains Jurassiques, Céphalopodes*
- Salfeld, H., 1913. "Certain Upper Jurassic Strata of England". *Quart. J. geol. Soc., Lond.* **69** : 423
- Salfeld, H., 1917. "Monographie der Gattung *Ringsteadia*." *Palaeontographica* **lxii**, **62** : 69
- Schneid, T., 1940. "Über Raseniiden, Ringsteadiiden und Pictoniiden des nördlichen Frankenjura." *Palaeontographica* **91** : 79
- Spath, L. F., 1935. "The Upper Jurassic invertebrate faunas of Cape Leslie, Milne Land, 1 Oxfordian and Lower Kimmeridgian". *Meddelelser om Grønland*, **99**, n. 2
- Tornquist, A., 1896. "Die degenerierten Perisphinctiden des Kimmeridge von Le Havre." *Mém. Soc. pal. Suisse*, **33** : 1

2. Supplementary note on nomenclatorial issues submitted by the Secretary : The following is the supplementary note on nomenclatorial issues submitted by the Secretary in agreement with the applicant in the present case :—

On the proposals relating to the determination of the type species of the nominal genera "Pictonia" Bayle, 1878, and "Rasenia" Salfeld, 1913 (Class Cephalopoda, Order Ammonoidea) submitted to the International Commission on Zoological Nomenclature by Dr. W. J. Arkell

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

1. The case of the generic names *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913, submitted to the Commission by Dr. W. J. Arkell, is one of peculiar complexity, owing to the facts that, as specialists are agreed, (1) the nominal genus *Pictonia* Bayle was based upon a misidentified type species, (2) the type species of *Rasenia* Salfeld was cited by the author of that name in a misleading manner, and (3) the nominal species which (as shown below) is, under the *Règles* the type species of both genera is a species which, when its name was first published, was a composite species, the division of which, under Article 31, has proved a matter of difficulty. Passing from the nomenclatorial aspects of this case to the taxonomic aspects, as laid before the Commission, we shall find that the strict application of the *Règles* to these generic names

would have the effect (i) of transferring to the genus *Pictonia* the species at present referred to the genus *Rasenia*, (ii) of making *Rasenia* an objective synonym of *Pictonia*, and (iii) of making it necessary to find some new generic name for the species at present placed in the genus *Pictonia*. It is Dr. Arkell's object to prevent the serious confusion to which the foregoing changes would give rise, by enlisting the help of the Commission through the use of its Plenary Powers. In order to grasp the nomenclatorial implications of this difficult case, I have found it necessary for my own purposes to prepare the present analysis of the data submitted as a preliminary to considering exactly what action by the Commission would be necessary to secure the ends sought by Dr. Arkell.

The type species, under the "Règles", of the nominal genera "Pictonia" Bayle, 1878, and "Rasenia" Salfeld, 1913

2. *Type species of Pictonia Bayle, 1878* : The generic name *Pictonia* was first published in 1878 by Bayle in volume 4 of the *Atlas to the Carte géologique de France* ; it there appeared in the explanation to plate lxxvi in the form of the following legend : "*Pictonia cymodoce* d'Orbigny". No explanatory text was ever published by Bayle. From the standpoint of nomenclature the nominal genus *Pictonia* Bayle, 1878, has, as its type species by monotypy, the species *Ammonites cymodoce* d'Orbigny, 1850, whatever that species may be. (It may here be noted that, until the meeting of the Thirteenth International Congress of Zoology in Paris in 1948 it had never been made clear authoritatively whether a generic name published in this way on the legend of a plate could properly be regarded as having been published with an indication for the purposes of Article 25 or whether a name so published ought, under the *Règles*, to be regarded as a *nomen nudum*. At the foregoing Congress consideration of this question was given in connection with an application submitted, as a test case, by Dr. Harald A. Rehder (United States National Museum, Washington, D.C.) regarding the status of the generic name *Erycina* Lamarck, 1801 ; it was then decided that words should be inserted in the *Règles* " to make it clear that a generic name published prior to 1st January 1931, on a legend to a plate or plates but without explanatory matter is to be treated as having been published with an ' indication ' for the purposes of Article 25 " (see 1950, *Bull. zool. Nomencl.* 4 : 255). Accordingly, any doubts which may formerly have existed regarding the availability of the generic name *Pictonia* as from the time when it was first published by Bayle in 1878 have now been set at rest.)

3. *Type species of Rasenia Salfeld, 1913* : The generic name *Rasenia* was first published by Salfeld in 1913 (*Quart. J. geol. Soc.* 69 : 423). He designated as the type species of this genus, *Ammonites cymodoce* d'Orbigny, 1850. That species, whatever it may be, is therefore the type species of this genus. In making this type designation, Salfeld noted that he regarded figs. 1 and 2 on plate 202 of d'Orbigny's work

as representing the true *Ammonites cymodoce* d'Orbigny; he presumably added this note, because he was aware that (as pointed out by Tornquist (1896)) (paragraph 6 below) d'Orbigny's nominal species *Ammonites cymodoce*, when first established, was a composite nominal species and he wished therefore to indicate that, in referring to that species, he (Salfeld) had in mind the species represented by d'Orbigny's figs. 1 and 2 and not that represented by that author's figs. 3 and 4. In this connection we have to pay special heed to the action taken by the Thirteenth International Congress of Zoology in Paris in 1948, when it incorporated into the *Règles* in a clarified and expanded form the rulings on the subject of the type species of genera established with misidentified type species previously given by the Commission in their *Opinions* 65 and 168. It will be noted that in their amended form the *Règles* provide that an author who published a name for a genus is to be assumed "to have identified correctly the nominal species referred by him to the genus so named and therefore that, where . . . the original author himself designates or indicates . . . one of the originally included nominal species to be the type species of the genus, the designation . . . so made, is not to be rejected on the ground that the original author of the generic name misidentified some other nominal species with that nominal species" (1950, *Bull. zool. Nomencl.* 4 : 158). It is perfectly clear therefore that, under the *Règles*, the type species of *Rasenia* Salfeld, 1913, is *Ammonites cymodoce* d'Orbigny, 1850, by original designation. The present case is, however, complicated by the fact that Salfeld, when citing the name *Ammonites cymodoce* d'Orbigny, added that he identified that species with figs. 1 and 2 given by d'Orbigny on his plate 202, whereas it is clear, as Dr. Arkell points out, from other observations made by Salfeld that he intended to refer not to the foregoing figures but to d'Orbigny's figs. 3 and 4 (which had been made the lectotype of *Ammonites cymodoce* d'Orbigny by Tornquist in 1896 (see table in paragraph 6 below)). This note by Salfeld has led to the conclusion by some workers that the species represented by d'Orbigny's figs. 1 and 2 must (contrary to Salfeld's intention) be accepted as the type species of *Rasenia*, but, as will be seen from the decision by the Congress quoted above, this is not so, for the type species of a genus must be the species represented by the nominal species designated as the type species, in the present case, *Ammonites cymodoce* d'Orbigny, 1850, the lectotype of which (as already stated) is the species represented not by d'Orbigny's figs. 1 and 2 but that represented by his figs. 3 and 4. Thus, in fact, Salfeld's action constitutes, under the *Règles*, a valid designation, as the type species of *Rasenia*, of the species which he intended to designate (i.e. the species represented by d'Orbigny's figs. 3 and 4), notwithstanding the fact that the note which he added, by some slip of the pen, implied that he intended to designate, as the type species of this genus, the species represented by d'Orbigny's figs. 1 and 2.

4. *Nomenclatorial relationship of the nominal genera Pictonia Bayle, 1878, and Rasenia Salfeld, 1913, with one another* : In the preceding

paragraphs, we have seen that the type species of *Pictonia* Bayle, 1878, is, under the *Règles*, the nominal species *Ammonites cymodoce* d'Orbigny, 1850 (paragraph 2) and that the same nominal species is the type species of *Rasenia* Salfeld, 1913. Thus, under the *Règles*, the generic name *Rasenia* Salfeld, 1913, is a synonym of *Pictonia* Bayle, 1878 (the nominal genera, so named, having the same nominal species as their respective type species). Under a strict application of the *Règles*, the generic name *Rasenia* Salfeld, 1913, is an invalid name and disappears from the literature, unless the Commission confers availability upon it by varying its type species under the Plenary Powers.

The identity of the nominal species “ *Ammonites cymodoce* ” d'Orbigny, 1850

5. Having ascertained that, under the *Règles*, the nominal species *Ammonites cymodoce* d'Orbigny, 1850, is the type species both of *Pictonia* Bayle, 1878, and of *Rasenia* Salfeld, 1913, we have now to consider the question, partly nomenclatorial and partly taxonomic, of the identity of the species to which under the *Règles* the specific name *Ammonites cymodoce* d'Orbigny, 1850, properly applies. The nomenclatorial procedure for determining the type specimen of a nominal species or the figure or description which exclusively represents the type specimen of a nominal species, both where such a species is regarded by specialists as having originally been a composite species and where it is not so regarded, is laid down in Article 31 of the *Règles*, as amplified and clarified by the Thirteenth International Congress of Zoology in 1948 (see, 1950, *Bull. zool. Nomencl.* 4 : 73—76). Taxonomic considerations are involved in such a case only where specialists in the group concerned are of the opinion, as in the present case, that the nominal species under consideration was originally a composite species. In discussing in the following paragraphs this aspect of the present case, I naturally rely entirely upon the views expressed by Dr. Arkell and by the authorities whom he cites, having myself no personal knowledge in this matter.

6. The nominal species *Ammonites cymodoce* d'Orbigny, 1850, was based by its author upon four figures (figs. 1—4) given by him on plate 202 of his work. Figures 1 and 2 represent one specimen, figures 3 and 4 another. These two specimens are therefore the sole syntypes of this nominal species, the first syntype being represented by figs. 1 and 2, the second, by figs. 3 and 4. These two syntypes have since the time of Tornquist (1896 : 8) been regarded as being specifically distinct from one another. In the ensuing discussion, I refer to the species represented by the syntype represented by figs. 1 and 2 as Species “ A ”, and to the species represented by the syntype represented by figs. 3 and 4 as Species “ B ”. In the following table I have assembled certain

particulars in regard to species "A" and species "B" given by Dr. Arkell, which throw important light both on the nature of the problem and on the character of the action required to avoid the confusion apprehended by Dr. Arkell.

Particulars relating to the two taxonomic species considered by specialists to have been included by d'Orbigny in his composite nominal species "Ammonites cymodoce" d'Orbigny, 1850

	<i>Species "A"</i>	<i>Species "B"</i>
Figure given by d'Orbigny.	Figs. 1 and 2 on pl. 202.	Figs 3 and 4 on pl. 202.
Relationship of d'Orbigny's figures to the specimens claimed by Lemoine to have been identified as the syntypes on which those figures were based.	"The larger specimen is clearly the one represented in d'Orbigny's larger figures, figs. 1 and 2" (Arkell).	"The smaller specimen figured by Lemoine differs in many respects from d'Orbigny's smaller figures, figs. 3 and 4, and it seems very doubtful whether the specimen has been correctly identified" (Arkell).
Species to which the name <i>Ammonites cymodoce</i> d'Orbigny applies through the selection of a lectotype from the original syntypes.	—	Tornquist (1896) selected figures 3 and 4 on pl. 202 to represent the lectotype of <i>Ammonites cymodoce</i> d'Orbigny, which thus became the name of Species "B".
Name given to the syntype not selected as the lectotype of <i>Ammonites cymodoce</i> d'Orbigny.	Tornquist (1896) established a new nominal species, <i>Pictonia orbigni</i> , expressly based on d'Orbigny's figs. 1 and 2.	—
Relative size of d'Orbigny's syntypes.	Larger than that represented by d'Orbigny's figs. 3 and 4.	Smaller than the syntype represented by d'Orbigny's figs. 1 and 2.
Distinguishing characters of d'Orbigny's syntypes.	"A smooth ammonite with flared ribs on the inner whorls" (Arkell).	"A strongly ribbed ammonite showing ribs swung well forward but none of them flared" (Arkell).
Genera to which species corresponding with d'Orbigny's syntypes commonly referred.	<i>Pictonia</i> Bayle, 1878.	<i>Rasenia</i> Salfeld, 1913.

7. The data assembled in the foregoing table show :—

- (a) that *Ammonites cymodoce* d'Orbigny, 1850, the type species' under the *Règles* (paragraph 2) of *Pictonia* Bayle, 1878, is in fact a species belonging to the group referred to the genus *Rasenia* Salfeld, 1913 ;
- (b) that the acceptance of the above species as the type species of *Pictonia* Bayle, 1878, by involving the transfer to that genus of the species at present referred to *Rasenia* Salfeld, 1913, and the transfer to some other genus of the species currently referred to *Pictonia* Bayle, would create confusion in the nomenclature of the genera and species concerned.

Species intended by Bayle to be referred to the genus " Pictonia " Bayle, 1878, as contrasted with the species referable thereto under the " Règles " in consequence of " Ammonites cymodoce " d'Orbigny, 1850, being the type species of that genus.

8. We have seen (paragraph 2) that the type species of *Pictonia* Bayle, 1878, under the *Règles* is *Ammonites cymodoce* d'Orbigny, 1850, and (paragraph 7) that this species is not a species of the genus *Pictonia* Bayle, as currently understood. This is because a further error of determination was committed by Bayle himself who, when citing the above species in explanation of his plate lxvi, applied its name to the figure of a specimen of a different species. This error was detected by Salfeld in 1913 who gave to the species figured by Bayle the name *Pictonia baylei*. In 1917 Salfeld followed this up by selecting *Pictonia baylei* Salfeld, 1913, as the type species of the genus *Pictonia* Bayle. In this action Salfeld has been generally followed by later writers and it is this practice that has given rise to the current conception of the genus *Pictonia*. Salfeld's action in 1917 was invalid, because, as already explained (paragraph 2), the type species of *Pictonia* Bayle had been *Ammonites cymodoce* d'Orbigny, by monotypy, from the moment that the name *Pictonia* was first published in 1878.

Action suggested to prevent confusion which would follow the strict application of the " Règles " in the present case

9. The Thirteenth International Congress of Zoology, when revising the *Règles* in Paris in 1948, provided (as indicated in paragraph 3 above) a remedy in cases where the acceptance, as the type species, of the nominal species designated, indicated or selected as such under Article 30 of the *Règles* would clearly lead to confusion, owing to the nominal genus in question having been based upon a misidentified type species. The remedy so provided (see 1950, *Bull. zool. Nomencl.* 4 : 158—159) was that the Commission, if satisfied that such a misidentification had occurred, is " under its Plenary Powers, to designate as the type species of the genus concerned, either (a) the species intended by the original author when citing the name of the erroneously determined

species, or (b) if the identity of that species is doubtful, a species in harmony with current nomenclatorial usage". It is this provision which Dr. Arkell seeks to invoke in the present case.

10. The purpose of the action recommended being to secure that the nominal genera *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913, shall have, as their respective species, species which are in harmony with the current usage of these generic names, the first action required is that the Commission should use its Plenary Powers to set aside all type designations, indications or selections made for either of the foregoing nominal genera prior to the date of the action proposed. When we turn to the question of the species which should be designated under the Plenary Powers to be the type species of these genera, it is immediately evident that in the case of the genus *Pictonia* Bayle, 1878, the species which should be designated as the type species is *Pictonia baylei*, 1878, that being (a) the species figured by Bayle (under the erroneous name *Pictonia cymodoce* d'Orbigny) at the time when he first published the generic name *Pictonia*, and (b) the species which is commonly (though incorrectly) regarded as the type species of that genus and which in consequence has given rise to the commonly accepted concept of the scientific content of this genus. When we turn to the question of the type species of the genus *Rasenia* Salfeld, 1913, the position is found to be somewhat different. In this case, the type species (*Ammonites cymodoce* d'Orbigny, 1850) is, as specialists agree, a species belonging to the genus *Rasenia* as currently understood. Dr. Arkell has expressed the opinion, however, that the grave discrepancies between d'Orbigny's figs. 3 and 4 (representing the lectotype of *Ammonites cymodoce* d'Orbigny) and the specimen claimed by Lemoine (1904) to be the actual specimen from which those figures were prepared throw the specific identity, he thinks, even the generic affinities, of that nominal species into doubt and make it unsuitable to be the type species of this important genus. I agree with the view expressed by Dr. Arkell in this matter and concur in his suggestion that some species of undoubted identity, and one clearly belonging to the genus *Rasenia* Salfeld, as currently understood, should be designated as the type species of that genus. The species suggested for this purpose by Dr. Arkell is *Rasenia involuta* (Salfeld MS.) Spath, 1935 (*Meddelelser Grønland* 99 (No. 2) : 48 pl. 10, figs. 5a, 5b). I should add that, if the nominal species *Ammonites cymodoce* d'Orbigny is to be displaced for the foregoing reasons, from its position as the type species of *Rasenia* Salfeld, the logical course would be to recognise that the specific name *Ammonites cymodoce* d'Orbigny, 1850, is an unwanted *nomen dubium* and therefore to suppress that name, thereby eliminating any further waste of time in discussion as to the possible identity of the taxonomic species which it was intended to represent. If these general conclusions were to be accepted by the Commission, a number of routine decisions, in regard to the addition of the various names concerned to the appropriate *Official List* or *Official Index*, would follow in the wake of the main decision. The detailed decisions which (as Dr. Arkell agrees *in Litt.*,

10, ix. 1950) would be called for on the basis discussed above, are as follows :—

- (1) that the Plenary Powers of the Commission should be used :
 - (a) to set aside all type designations, indications or selections made for the under-mentioned genera prior to the date of the proposed decision :—
 - (i) *Pictonia* Bayle, 1878 ;
 - (ii) *Rasenia* Salfeld, 1913 ;
 - (b) to designate *Pictonia baylei* Salfeld, 1913 (based upon Bayle's (1878) plate lxvi to be the type species of *Pictonia* Bayle, 1878 ;
 - (c) to designate *Rasenia involuta* (Salfeld MS.) Spath, 1935 (as represented by figs. 5a and 5b on Spath's plate 10) to be the type species of *Rasenia* Salfeld, 1913 ;
 - (d) to suppress the trivial name *cymodoce* d'Orbigny, 1850, as published in the combination *Ammonites cymodoce* ;
- (2) that the generic names *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913 (gender of both generic names, feminine), with the type species respectively designated therefor in (1) above, should be placed on the *Official List of Generic Names in Zoology* ;
- (3) that the under-mentioned trivial names should be placed on the *Official List of Specific Trivial Names in Zoology* :—
 - (a) the name *baylei* Salfeld, 1913, as published in the combination *Pictonia baylei*, as defined in (1)(b) above ;
 - (b) the name *involuta* (Salfeld MS.) Spath, 1935, as published in the combination *Rasenia involuta*, as defined in (1)(c) above ;
- (4) that the trivial name *cymodoce* d'Orbigny, 1850, as published in the combination *Ammonites cymodoce*, should be placed on the *Official Index of Rejected and Invalid Specific Names in Zoology*.

II. THE SUBSEQUENT HISTORY OF THE CASE

3. Registration of the present application : Upon the receipt of the first communication from Dr. Arkell on the subject of the

type species to be accepted for the genera *Pictonia* Bayle and *Rasenia* Salfeld, the problem so involved was allotted the Registered Number Z.N.(S.) 421.

4. Publication of the present application : The present application, together with Mr. Hemming's supplementary note on nomenclatorial issues, was sent to the printer on 27th December 1950. Both documents were published on 4th May 1951 in Triple Part 6/8 of Volume 2 of the *Bulletin of Zoological Nomenclature* (Arkell, 1951, *Bull. zool. Nomencl.* **2** : 178—180 ; Hemming, 1951, *ibid*, **2** : 181—187).

5. Issue of Public Notices : Under the revised arrangements prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 4th May 1951 (a) in Triple-Part 6/8 of Volume 2 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Arkell's application was published) and (b) to the other prescribed serials. In addition, such Notice was given also to certain general zoological serial publications and to a number of palaeontological serials in Europe and America.

6. Comments received : Only one comment on the present application was received during the Prescribed Six-Month Period. This was from Dr. R. Ph. Dollfus (*Paris*) who supported the action recommended in the present case. After the close of the foregoing period one further communication was received. This was a letter giving particulars of the views of the members of the Joint Committee on Zoological Nomenclature for Paleontology in America. The communications so received are reproduced in the immediately following paragraphs.

7. Support received from Dr. R. Ph. Dollfuss (Muséum National d'Histoire Naturelle, Paris) : On 25th June 1951 Dr. R. Ph Dollfus (*Muséum National d'Histoire Naturelle, Paris*) furnished to the Office of the Commission a statement setting out his

views in regard to a number of applications recently published in the *Bulletin of Zoological Nomenclature*. The following is the passage in the foregoing statement in which Dr. Dollfus indicated his support for the proposals submitted in the present case : “ Je suis pour la conservation de *Pictonia* (type : *cymodoce* Orbigny, 1850, pl. CCII, figs. 1—2) ”.

8. Statement of the view of the members of the Joint Committee on Zoological Nomenclature for Paleontology in America : On 9th April 1952 there was received a large number of letters commenting on various applications previously published in the *Bulletin of Zoological Nomenclature* from Professor G. Winston Sinclair (then of the *University of Michigan, Ann Arbor, Michigan, U.S.A.*), Chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America. Included among these was a letter reporting that seven members of the Joint Committee were opposed to the present proposal as against four who were in favour of it. The foregoing letter was dated 6th February 1952, and its late receipt was apparently due to a decision to defer the despatch to the Commission of the letters containing comments by members of the Joint Committee until all the letters in question had been prepared. By the date on which this letter was received, the Prescribed Period of Public Notice had expired and the Voting Paper (V.P.(52)19) relating to this case had been prepared. It was therefore impossible to include in that Voting Paper a reference to Professor Sinclair's letter, but, when the Voting Paper was despatched (15th April) a supplementary sheet containing the particulars furnished by Professor Sinclair was issued to the Members of the Commission, who were thus placed in possession of the views of the members of the Joint Committee at the same time that they received the Voting Paper relating to the present case. The following is the text of Professor Sinclair's letter :—

The Joint Committee on Zoological Nomenclature for Paleontology in America has considered this subject, and I wish to inform you that being polled, they voted : To support the petition (four) :—(1) Bobb Schaeffer ; (2) Bryan Patterson ; (3) John B. Reeside, Jnr. ; (4) R. C. Moore. To oppose the petition (seven) :—(1) Don L. Frizzell ; (2) Katherine V. W. Palmer ; (3) Siemon W. Muller ; (4) A. Myra Keen ; (5) J. Marvin Weller ; (6) G. Winston Sinclair ; (7) John W. Wells.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

9. Issue of Voting Paper V.P.(52)19 : On 15th April 1952, a Voting Paper (V.P.(52)19) was issued in which the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the names *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913, as specified in Points (1) to (4) on pages 186 and 187 of Volume 2 of the *Bulletin of Zoological Nomenclature* [i.e. in the Points numbered as above in paragraph 10 of the Supplementary Note by the Secretary reproduced in paragraph 2 of the present *Opinion*].

10. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 15th July 1952.

11. Particulars of the Voting on Voting Paper V.P.(52)19 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(52)19 was as follows :—

(a) *Affirmative Votes had been given by the following fifteen (15) Commissioners (arranged in the order in which Votes were received) :*

Hering ; Calman ; Dymond ; Esaki ; Pearson ;
do Amaral ; Hankó ; Bonnet ; Mertens ; Lemche ;
Cabrera ; Boschma ; Bradley (J.C.)* ; Hemming ;
Riley ;

(b) *Negative Votes, two (2) :*

Vokes ; Stoll ;

(c) *Voting Papers not returned, one (1) :*

Jaczewski.

* Except as regards Points (1)(a) and (4).

12. Declaration of Result of Vote : On 16th July 1952, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(52)19, signed a Certificate that the Votes cast were as set out in paragraph 11 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

13. Revised proposals relating to the specific name “ cymodoce ” d’Orbigny, 1850, as published in the combination “ Ammonites cymodoce ” : In March 1954 consultations were opened by the Secretary with Dr. W. J. Arkell on the question of the substitution of revised proposals relating to the specific name *cymodoce* d’Orbigny, 1850, as published in the combination *Ammonites cymodoce*, for those submitted in the paper published in the *Bulletin of Zoological Nomenclature* (2 : 187), which, though approved by the majority of the Commission in its vote on Voting Paper V.P.(52)19 had not been approved by all the members of the Commission and which had been specifically opposed by Commissioner Chester Bradley (paragraph 11). These discussions led to the submission to the Commission by the Secretary on 29th April 1955 of the following paper containing revised proposals for dealing with the above matter :—

**Revised proposals relating to the specific name “ cymodoce ” d’Orbigny, 1850, as published in the combination “ Ammonites cymodoce ”
(Class Cephalopoda, Order Ammonoidea)**

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

The object of the present paper is to report to the Commission that, since it voted on the proposals submitted to it in regard to the generic names *Pictonia* Bayle, 1878, and *Rasenia* Salfeld, 1913 (Class Cephalopoda, Order Ammonoidea), a development has occurred in regard to the specific name *cymodoce* d’Orbigny, 1850, as published in the combination *Ammonites cymodoce*, which in my view, calls for the further consideration of this question before an *Opinion* is prepared giving the Commission’s decision on the *Pictonia/Rasenia* problem. Particulars of the problem now to be considered are given in the following paragraphs.

2. The *Pictonia/Rasenia* problem was raised in a brief application submitted to the Commission by Dr. W. J. Arkell (*Sedgwick Museum, Cambridge University, Cambridge*). This application was published in May 1951 (*Bull. zool. Nomencl.* 2 : 178—180), but did not contain all the particulars required to enable the Commission to comply with the General Directives issued to it by the International Congress of Zoology in the matter of the content of decisions to be given in *Opinions*. In order to make good this deficiency, I judged it necessary, as Secretary, to prepare a supplementary note for the consideration of the Commission. This note, which was prepared in conjunction with Dr. Arkell, was published at the same time as his application (*ibid.* 2 : 181—187).

3. The first of the principal objects of Dr. Arkell's application was to secure for the genus *Pictonia* Bayle, 1878, a type species clearly belonging to the genus *Pictonia* as generally understood in the literature. The genus *Pictonia* Bayle was a monotypical genus, the sole originally included nominal species being *Ammonites cymodoce* d'Orbigny. Bayle gave at the same time a figure of what he regarded as being d'Orbigny's species and it is by this figure that the genus *Pictonia* Bayle has since been interpreted. Later, it transpired that Bayle had made an error of identification and that the species which he figured was not referable to *Ammonites cymodoce* d'Orbigny. The species figured by Bayle was without a valid name until in 1917 Salfeld named it *Pictonia baylei*. The nominal genus *Pictonia* Bayle was thus a genus considered by specialists in the group to have been based upon a misidentified type species, and Dr. Arkell's application was designed to secure from the Commission a decision under the procedure laid down by the Thirteenth International Congress of Zoology, Paris, 1948, by which *Pictonia baylei* Salfeld would be ruled to be the type species of the genus *Pictonia* Bayle.

4. The second of the principal objects of Dr. Arkell's application was to secure a satisfactory type species for the genus *Rasenia* Salfeld, 1913, the type species of which, under the *Règles*, was, by original designation, *Ammonites cymodoce* d'Orbigny, 1850. Dr. Arkell considered that this nominal species was unsuitable to be the type species of an important genus such as *Rasenia* Salfeld, owing to the fact that, when d'Orbigny established the nominal species *Ammonites cymodoce*, he based it upon figures considered by later workers to represent two distinct taxonomic species. Moreover, there had been later some disagreement as to the specimens in the d'Orbigny collection which should be regarded as syntypes of *cymodoce* d'Orbigny, as the result of the action of Lemoine (1904) in figuring a specimen which he claimed to be the syntype figured by d'Orbigny as figs. 3 and 4, which was the lectotype of *cymodoce* d'Orbigny by selection by Tornquist (1896), for the specimen so figured by Lemoine differed in a number of important respects from d'Orbigny's figures

of the lectotype. To overcome this difficulty, Dr. Arkell asked the Commission to use its Plenary Powers to designate as the type species of *Rasenia* Salfeld a species which without question belonged to the genus *Rasenia* as currently understood in the literature. The species which Dr. Arkell proposed should be so designated was *Rasenia involuta* Spath, 1935.

5. When I was preparing the supplementary note referred to in paragraph 2 above, it seemed to me that, in view of the fact that under Dr. Arkell's proposals the nominal species *Ammonites cymodoce* d'Orbigny was to be displaced from its position as the type species both of *Pictonia* Bayle and of *Rasenia* Salfeld and as moreover there had (as shown above) been argument as to the identity of the species so named, the name *cymodoce* d'Orbigny had become so compromised that the best course would be to suppress it altogether. Dr. Arkell did not then dissent from this proposal which was accordingly included in my supplementary note. Dr. Arkell has since informed me, however, that it would, in his view, be a mistake to suppress this name, since *cymodoce* d'Orbigny, as defined by its lectotype (i.e. by d'Orbigny's figs. 3 and 4) has given its name to an important stratigraphical zone. In the light of this information, I agree with Dr. Arkell that the name *cymodoce* d'Orbigny ought not to be suppressed and I therefore now withdraw the suggestion which I had previously made on this subject. On the other hand, this name, which formed the centre of Dr. Arkell's original application, cannot be left in the air in the decision to be taken by the Commission in this case, for this would conflict with the General Directive given to the Commission by the Congress that in every case the Ruling given in an *Opinion* must cover the whole of the problem submitted. I have accordingly discussed with Dr. Arkell the nature of the revised proposal now to be submitted to the Commission, and we are agreed that the best course would be to ask the Commission, in lieu of the proposal previously recommended, to place on record that the nominal species *Ammonites cymodoce* d'Orbigny, 1850, is to be interpreted by the lectotype selected by Tornquist (1896) (i.e. by figs. 3 and 4 on d'Orbigny's pl. 202) and, having done so, to place the specific name *cymodoce* d'Orbigny, 1850, so defined, on the *Official List of Specific Names in Zoology*, thus preserving that name for the stratigraphical zone to which it has long been applied. Dr. Arkell has informed me that he is confident that a decision on these lines will be warmly welcomed by stratigraphers.

14. Issue of Voting Paper V.P.(O.M.)(55)17 : On 29th April 1955, a Voting Paper (V.P.(O.M.)(55)17) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the specific name *cymodoce* d'Orbigny, 1850, as published in the combination *Ammonites cymodoce*, set out at the end of paragraph 5 of the

paper bearing the Number Z.N.(S.) 421 submitted by the Secretary simultaneously with the present Voting Paper” [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 13 of the present *Opinion*].

15. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 29th May 1955.

16. Particulars of the Voting on Voting Paper V.P.(O.M.)(55)17 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(55)17 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

Stoll ; Hering ; Vokes ; Boschma ; Mertens ; Lemche ;
Bonnet ; Tortonese ; Hemming ; Key ; Esaki ;
Kühnelt ; do Amaral ; Mayr ; Hankó ; Prantl ; Riley ;
Bodenheimer ; Bradley (J.C.) ; Dymond ; Miller ;
Jaczewski ; Cabrera ;

(b) *Negative Votes, two (2) :*

Holthuis ; Sylvester-Bradley ;

(c) *Voting Papers not returned :*

None.

17. Declaration of Result of Vote : On 30th May 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.) (55)17, signed a Certificate that the Votes cast were as set out in paragraph 16 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

18. Preparation of the Ruling given in the present "Opinion" :

On 22nd March 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(52)19, as modified in one respect by the Vote taken on Voting Paper V.P.(O.M.)(55)17.

19. Original References : The following are the original references for the names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

baylei, *Pictonia*, Salfeld, 1913, *Quart. J. geol. Soc. Lond.* **69** : 429

cymodoce, *Ammonites*, d'Orbigny, 1850, *Paléont. franc.*, Terr. Jurassiques, 1 (Cephalop.) : 534 pl. 202, figs. 3—4 *nec* figs. 1—2

involuta, *Rasenia*, Spath, 1935, *Meddelelser Grønland* 99 (No. 2) : 48, pl. 10, figs. 5a, 5b

Pictonia Bayle, 1878, *Explic. Carte géol. France* 4 (Atlas) : explic. pl. 66

Rasenia Salfeld, 1913, *Quart. J. geol. Soc. Lond.* **69** : 429

20. Family-Group-Name Problems : Both the generic name *Pictonia* Bayle and the generic name *Rasenia* Salfeld have been taken as the base for family-group names. The names concerned have already been placed on the *Official List of Family-Group Names in Zoology* by the International Commission in *Direction* 14 (1955, *Ops. Decls. int. Comm. zool. Nomencl.* **10**(18) : 463—480).

21. At the time of the submission of the present application the name applicable to the second portion of a binomen was "trivial name". This was altered to "specific name" by the Fourteenth International Congress of Zoology, Copenhagen, 1953, which at the same time made corresponding changes in the titles of the *Official List* and *Official Index* of names of this category. These changes in terminology have been incorporated in the Ruling given in the present *Opinion*.

22. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

23. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-Six (426) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Second day of March, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 11. Pp. 281—310

OPINION 427

Rejection for nomenclatorial purposes of the work by Renier (S.A.) known as *Tavole per servire alle classificazione e conoscenza degli animali* and commonly attributed to the year 1807 and addition to the *Official Indexes of Rejected and Invalid Names in Zoology* of certain names first used in the foregoing work or in two earlier works by the same author commonly known as the *Tavola alfabetica* and the *Prospetto* respectively and both commonly attributed to the year 1804

LONDON :

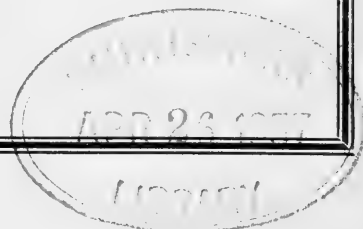
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 427

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(Arranged in order of precedence by reference to date of election or of most recent re-election as prescribed by the International Congress of Zoology)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(1st January 1947)

Senor Dr. Angel CABRERA (*La Plata, Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a. M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (12th August 1953) (*Vice-President*)

Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*) (12th August 1953) (*President*)

Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*)
(12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N. Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*)
(29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*)
(6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale, "G. Doria," Genova, Italy*)
(16th December 1954)

OPINION 427

REJECTION FOR NOMENCLATORIAL PURPOSES OF THE WORK BY RENIER (S.A.) KNOWN AS "TAVOLE PER SERVIRE ALLE CLASSIFICAZIONE E CONNECENZA DEGLI ANIMALI" AND COMMONLY ATTRIBUTED TO THE YEAR 1807 AND ADDITION TO THE "OFFICIAL INDEXES OF REJECTED AND INVALID NAMES IN ZOOLOGY" OF CERTAIN NAMES FIRST USED IN THE FOREGOING WORK OR IN TWO EARLIER WORKS BY THE SAME AUTHOR COMMONLY KNOWN AS THE "TAVOLA ALFABETICA" AND THE "PROSPETTO" RESPECTIVELY AND BOTH COMMONLY ATTRIBUTED TO THE YEAR 1804

RULING :—(1) It is hereby ruled that the work by Renier (S.A.) known as the *Tavole per servire alle classificazione e connescenza degli Animali* and commonly attributed to the year 1807 was not duly published within the meaning of Article 25 of the *Règles* and therefore that no name acquired the status of availability by reason of appearing in the foregoing work.

(2) The title of the work specified in (1) above is hereby placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* with the Title Number 49.

(3) The under-mentioned generic names included in S. A. Renier's *Prospetto della Classe dei Vermi*, commonly attributed to the year 1804, a work rejected for nomenclatorial purposes by the Ruling given in *Opinion* 316, are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Aglaia* [sic] Renier, [1804] (Name No. 578) ;¹
- (b) *Rodens* Renier, [1804] (Name No. 579) ;
- (c) *Tricoelia* [sic] Renier, [1804] (Name No. 580) ;
- (d) *Tubulanus* Renier, [1804] (Name No. 581).²

(4) The under-mentioned generic names included in the work by S. A. Renier rejected for nomenclatorial purposes under (1) above are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Arenaria* Renier, [1807] (Name No. 582) ;
- (b) *Imisia* Renier, [1807] (Name No. 583) ;
- (c) *Marginella* Renier, [1807] (Name No. 584).

(5) The under-mentioned generic names formed with the termination “-genus” included by Renier in the work rejected for nomenclatorial purposes under (1)

¹ For the provisional decision taken by the International Commission in regard to the name *Aglaia* Renier, [1807], see Ruling 8(b)(i) of the present *Opinion*.

² For the provisional decision taken by the International Commission in regard to the generic name *Tubulans* Renier, [1807], see Ruling 8(b)(vii) of the present *Opinion*.

are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

- (i) *Teredigenus* Renier, [1807] (Name No. 585) ;
- (ii) *Pholadigenus* Renier, [1807] (Name No. 586) ;
- (iii) *Fistulanigenus* Renier, [1807] (Name No. 587) ;
- (iv) *Saxicavigenus* Renier, [1807] (Name No. 588) ;
- (v) *Rupellarigenus* Renier, [1807] (Name No. 589) ;
- (vi) *Petricoligenus* Renier, [1807] (Name No. 590) ;
- (vii) *Solenigenus* Renier, [1807] (Name No. 591) ;
- (viii) *Sanguinolarigenus* Renier, [1807] (Name No. 592) ;
- (ix) *Glycimerigenus* Renier, [1807] (Name No. 593) ;
- (x) *Myigenus* Renier, [1807] (Name No. 594) ;
- (xi) *Panopeigenus* Renier, [1807] (Name No. 595) ;
- (xii) *Anatinigenus* Renier, [1807] (Name No. 596) ;
- (xiii) *Mactrigenus* Renier, [1807] (Name No. 597) ;
- (xiv) *Lutrarigenus* Renier, [1807] (Name No. 598) ;
- (xv) *Crassatelligenus* Renier, [1807] (Name No. 599) ;
- (xvi) *Ungulinigenus* Renier, [1807] (Name No. 600) ;
- (xvii) *Tellinigenus* Renier, [1807] (Name No. 601) ;
- (xviii) *Donacigenus* Renier, [1807] (Name No. 602) ;

- (xix) *Cytherigenus* Renier, [1807] (Name No. 603) ;
- (xx) *Venerigenus* Renier, [1807] (Name No. 604) ;
- (xxi) *Erycinigenus* Renier, [1807] (Name No. 605) ;
- (xxii) *Capsigenus* Renier, [1807] (Name No. 606) ;
- (xxiii) *Galateigenus* Renier, [1807] (Name No. 607) ;
- (xxiv) *Cycladigenus* Renier, [1807] (Name No. 608) ;
- (xxv) *Lucinigenus* Renier, [1807] (Name No. 609) ;
- (xxvi) *Venericardigenus* Renier, [1807] (Name No. 610) ;
- (xxvii) *Cardigenus* Renier, [1807] (Name No. 611) ;
- (xxviii) *Isocardigenus* Renier, [1807] (Name No. 612) ;
- (xxix) *Carditigenus* Renier, [1807] (Name No. 613) ;
- (xxx) *Hippopigenus* Renier, [1807] (Name No. 614) ;
- (xxxi) *Tridacnigenus* Renier, [1807] (Name No. 615) ;
- (xxxii) *Trigonigenus* Renier, [1807] (Name No. 616) ;
- (xxxiii) *Cucullaeigenus* Renier, [1807] (Name No. 617) ;
- (xxxiv) *Archigenus* Renier, [1807] (Name No. 618) ;
- (xxxv) *Pectunculigenus* Renier, [1807] (Name No. 619) ;
- (xxxvi) *Nuculigenus* Renier, [1807] (Name No. 620) ;
- (xxxvii) *Anodontigenus* Renier, [1807] (Name No. 621) ;
- (xxxviii) *Uniigenus* Renier, [1807] (Name No. 622) ;
- (xxxix) *Pandorigenus* Renier, [1807] (Name No. 623) ;

- (xl) *Corbuligenus* Renier, [1807] (Name No. 624) ;
- (xli) *Diceratigenus* Renier, [1807] (Name No. 625);
- (xlii) *Chamigenus* Renier, [1807] (Name No. 626) ;
- (xliii) *Etheriigenus* Renier, [1807] (Name No. 627) ;
- (xliv) *Hirundigenus* Renier, [1807] (Name No. 628) ;
- (xlv) *Malleigenus* Renier, [1807] (Name No. 629) ;
- (xlvi) *Pernigenus* Renier, [1807] (Name No. 630) ;
- (xlvii) *Crenatuligenus* Renier, [1807] (Name No. 631) ;
- (xlviii) *Mytiligenus* Renier, [1807] (Name No. 632) ;
- (xlix) *Modioligenus* Renier, [1807] (Name No. 633) ;
- (l) *Pinnigenus* Renier, [1807] (Name No. 634) ;
- (li) *Plancunigenus* [sic] Renier, [1807] (Name No. 635) ;
- (lii) *Marginelligenus*³ Renier, [1807] (Name No. 636) ;
- (liii) *Limigenus* Renier, [1807] (Name No. 637) ;
- (liv) *Pedigenus* Renier, [1807] (Name No. 638) ;
- (lv) *Cystigenus* Renier, [1807] (Name No. 639) ;
- (lvi) *Imisigenus* Renier, [1807] (Name No. 640) ;
- (lvii) *Pectinigenus* Renier, [1807] (Name No. 641) ;

³ The name *Marginelligenus* Renier specified as Item (lii) (Name No. 636) in the Ruling given in the present *Opinion* is a name for a genus in the Class Pelecypoda which Renier also called by the name *Marginella* Renier. This genus was illustrated on Renier's Tav. VII. The homonymous generic name *Marginelligenus* Renier specified as Item (cxxxiv) (Name No. 718) in the Ruling given in the present *Opinion* is a name for a genus in the Class Gastropoda. This name was based by Renier on the name *Marginella* Lamarck, 1799. This genus was illustrated on Renier's Tav. VIII.

- (lviii) *Spondyligenus* Renier, [1807] (Name No. 642) ;
- (lix) *Plicatuligenus* Renier, [1807] (Name No. 643) ;
- (lx) *Gryphaeigenus* Renier, [1807] (Name No. 644) ;
- (lxi) *Ostreigenus* Renier, [1807] (Name No. 645) ;
- (lxii) *Vulselligenus* Renier, [1807] (Name No. 646) ;
- (lxiii) *Anomigenus* Renier, [1807] (Name No. 647) ;
- (lxiv) *Creniigenus* Renier, [1807] (Name No. 648) ;
- (lxv) *Calceoligenus* Renier, [1807] (Name No. 649) ;
- (lxvi) *Radiolithigenus* Renier, [1807] (Name No. 650) ;
- (lxvii) *Orbiculigenus* Renier, [1807] (Name No. 651) ;
- (lxviii) *Terebratuligenus* Renier, [1807] (Name No. 652) ;
- (lxix) *Liguligenus* Renier, [1807] (Name No. 653) ;
- (lxx) *Anatifigenus* Renier, [1807] (Name No. 654) ;
- (lxxi) *Balanigenus* Renier, [1807] (Name No. 655) ;
- (lxxii) *Tubicinelligenus* Renier, [1807] (Name No. 656) ;
- (lxxiii) *Coronuligenus* Renier, [1807] (Name No. 657) ;
- (lxxiv) *Aspergilligenus* Renier, [1807] (Name No. 658) ;
- (lxxv) *Siliquarigenus* Renier, [1807] (Name No. 659) ;

- (lxxvi) *Vermicularigenus* Renier, [1807] (Name No. 660) ;
- (lxxvii) *Arenarigenus* Renier, [1807] (Name No. 661) ;
- (lxxviii) *Patelligenus* Renier, [1807] (Name No. 662) ;
- (lxxix) *Fissurelligenus* Renier, [1807] (Name No. 663) ;
- (lxxx) *Emarginuligenus* Renier, [1807] (Name No. 664) ;
- (lxxxii) *Crepiduligenus* Renier, [1807] (Name No. 665) ;
- (lxxxiii) *Calyptraeigenus* Renier, [1807] (Name No. 666) ;
- (lxxxiiii) *Stomatiigenus* Renier, [1807] (Name No. 667) ;
- (lxxxv) *Haliotidigenus* Renier, [1807] (Name No. 668) ;
- (lxxxvi) *Concolepadigenus* Renier, [1807] (Name No. 669) ;
- (lxxxvii) *Planospirigenus* Renier, [1807] (Name No. 670) ;
- (lxxxviii) *Chitonigenus* Renier, [1807] (Name No. 671) ;
- (lxxxviiii) *Testacelligenus* Renier, [1807] (Name No. 672) ;
- (lxxxix) *Natichigenus* Renier, [1807] (Name No. 673) ;
- (xc) *Neritinigenus* Renier, [1807] (Name No. 674) ;
- (xci) *Helicinigenus* Renier, [1807] (Name No. 675) ;
- (xcii) *Helicigenus* Renier, [1807] (Name No. 676) ;
- (xciii) *Planorbigenus* Renier, [1807] (Name No. 677) ;

- (xciv) *Ampullarigenus* Renier, [1807] (Name No. 678) ;
- (xcv) *Auriculigenus* Renier, [1807] (Name No. 679) ;
- (xcvi) *Pyramidelligenus* Renier, [1807] (Name No. 680) ;
- (xcvii) *Melanigenus* Renier, [1807] (Name No. 681) ;
- (xcviii) *Lymneigenus* Renier, [1807] (Name No. 682) ;
- (xcix) *Achatinigenus* Renier, [1807] (Name No. 683) ;
- (c) *Phasianelligenus* Renier, [1807] (Name No. 684) ;
- (ci) *Volvarigenus* Renier, [1807] (Name No. 685) ;
- (cii) *Bulimigenus* Renier, [1807] (Name No. 686) ;
- (ciii) *Amphibulimigenus* Renier, [1807] (Name No. 687) ;
- (civ) *Ianthinigenus* Renier, [1807] (Name No. 688) ;
- (cv) *Turritelligenus* Renier, [1807] (Name No. 689) ;
- (cvi) *Pupigenus* Renier, [1807] (Name No. 690) ;
- (cvii) *Scalarigenus* Renier, [1807] (Name No. 691) ;
- (cviii) *Cyclostomigenus* Renier, [1807] (Name No. 692) ;
- (cix) *Monodontigenus* Renier, [1807] (Name No. 693) ;
- (cx) *Delphinuligenus* Renier, [1807] (Name No. 694) ;
- (cxi) *Turbinigenus* Renier, [1807] (Name No. 695) ;
- (cxii) *Solarigenus* Renier, [1807] (Name No. 696) ;

- (cxiii) *Trochigenus* Renier, [1807] (Name No. 697) ;
- (cxiv) *Cerithiigenus* Renier, [1807] (Name No. 698) ;
- (cxv) *Clavatuligenus* Renier, [1807] (Name No. 699) ;
- (cxvi) *Pleurotomigenus* Renier, [1807] (Name No. 700) ;
- (cxvii) *Turbinelligenus* Renier, [1807] (Name No. 701) ;
- (cxviii) *Fasciolarigenus* Renier, [1807] (Name No. 702) ;
- (cxix) *Pyruligenus* Renier, [1807] (Name No. 703) ;
- (cxx) *Fusigenus* Renier, [1807] (Name No. 704) ;
- (cxxi) *Muricigenus* Renier, [1807] (Name No. 705) ;
- (cxxii) *Rostellariigenus* Renier, [1807] (Name No. 706) ;
- (cxxiii) *Pterocerigenus* Renier, [1807] (Name No. 707) ;
- (cxxiv) *Strombigenus* Renier, [1807] (Name No. 708) ;
- (cxxv) *Cassigenus* Renier, [1807] (Name No. 709) ;
- (cxxvi) *Harpigenus* Renier, [1807] (Name No. 710) ;
- (cxxvii) *Doliigenus* Renier, [1807] (Name No. 711) ;
- (cxxviii) *Terebrigenus* Renier, [1807] (Name No. 712) ;
- (cxxix) *Eburnigenus* Renier, [1807] (Name No. 713) ;
- (cxxx) *Buccinigenus* Renier, [1807] (Name No. 714) ;
- (cxxxii) *Purpurigenus* Renier, [1807] (Name No. 715) ;
- (cxxxii) *Nassigenus* Renier, [1807] (Name No. 716) ;

- (cxxxiii) *Cancellarigenus* Renier, [1807] (Name No. 717) ;
- (cxxxiv) *Marginelligenus*⁴ Renier, [1807] (Name No. 718) ;
- (cxxxv) *Columbelligenus* Renier, [1807] (Name No. 719) ;
- (cxxxvi) *Mitrigenus* Renier, [1807] (Name No. 720) ;
- (cxxxvii) *Volutigenus* Renier, [1807] (Name No. 721) ;
- (cxxxviii) *Ancilligenus* Renier, [1807] (Name No. 722) ;
- (cxxxix) *Olivigenus* Renier, [1807] (Name No. 723) ;
- (cxl) *Terebelligenus* Renier, [1807] (Name No. 724) ;
- (cxli) *Ovuligenus* Renier, [1807] (Name No. 725) ;
- (cxlii) *Cypraeigenus* Renier, [1807] (Name No. 726) ;
- (cxliii) *Conigenus* Renier, [1807] (Name No. 727) ;
- (cxliv) *Sigaretigenus* Renier, [1807] (Name No. 728) ;
- (cxlv) *Bulligenus* Renier, [1807] (Name No. 729).

(6) The under-mentioned specific names included in Renier's work known as *Tavole alfabetica delle Conchiglie adriatiche* and commonly attributed to the year 1804 are hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Numbers severally specified below :—

- (a) *candidus* Renier, [1804], as used in the combination *Solen candidus* (Name No. 352) ;
- (b) *incurva* Renier, [1804], as used in the combination *Helix incurva* (Name No. 353) ;
- (c) *serrata* Renier, [1804], as used in the combination *Tellina serrata* (Name No. 354).

⁴ The name *Marginelligenus* Renier here specified, which applies to a genus in the Class Gastropoda is a homonym of an identical name applied by Renier on the preceding plate (Tav. VII) to a genus in the Class Pelecypoda. See Footnote 3.

(7) The under-mentioned specific name included in the work by Renier rejected for nomenclatorial purposes under (1) above is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Number 355 : *macula* Renier, [1807], as used in the combination *Acicula macula*.

(8) The future status to be accorded to the under-mentioned names introduced by Renier in the *Prospetto della Classe dei Vermi* and in the *Tavole per servire alle classificazione e conoscenza degli Animali* respectively is hereby reserved for further consideration :—

(a) Names used in the “*Prospetto della Classe dei Vermi*” :—

- (i) *Discoides* Renier, [1804] ; (ii) *Cerebratulus* Renier, [1804] ; (iii) *Polycitor* Renier, [1804] ; (iv) *Scolixedion* Renier, [1804] ;

(b) Names used in the “*Tavole serv. Class. Conn. Anim.*” :—

- (i) *Aglaja* Renier, [1807] ; (ii) *Alcyonaria* Renier, [1807] ; (iii) *Cystia* Renier, [1807] ; (iv) *Rodens* Renier, [1807] ; (v) *Tricelia* Renier, [1807] ; (vi) *Tuba* Renier, [1807] ; (vii) *Tubulanus* Renier, [1807].

I. THE STATEMENT OF THE CASE

On 28th July 1952 Dr. Myra Keen (*Stanford University, Stanford, California, U.S.A.*) submitted to the International

Commission on Zoological Nomenclature an application for a Ruling that the work by Renier (S.A.) known as the *Tavole per servire alle classificazione e conoscenza degli Animali* and commonly attributed to the year 1807 was not duly published within the meaning of Article 25 of the *Règles* and therefore that no name introduced in that work acquired thereby the status of availability. In the same application Dr. Keen suggested that in the case of seven generic names introduced in the above work, as also four generic names introduced in the *Prospetto della Classe dei Vermi* of the same author, an opportunity should be given to interested specialists to state whether, in their view, validation under the Plenary Powers was desirable. In 1954 this application was revised by the applicant on certain points of detail and was re-submitted in the following form on 12th May of that year :—

Application for a Ruling that works credited to S. A. Renier as of the dates 1804 and 1807 were not published within the meaning of Article 25 of the “ Règles ”

By A. MYRA KEEN

(Stanford University, Stanford, California, U.S.A.)

In a recent petition Dr. L. R. Cox (Commission's reference Z.N.(S.) 432⁵) asks that “the *Prodromo* of S. A. Renier and the *Prospetto della Classe dei Vermi* (dated 1804) prepared by that author for inclusion in the *Prodromo*” be rejected as not having been duly published.

2. The present petition requests that the Commission consider the larger problem of all of Renier's uncompleted works dated 1804 and 1807. As Dr. Cox's petition did not take into account the generic and specific names involved, it seems well to review these in some detail.

3. The term “*Prodromo*” apparently was used only informally if at all by Renier, for the word does not appear in the photostatic copy of Renier's works now in Stanford University library, a copy

⁵ A decision has since been taken on Dr. Cox's application (1951, *Bull. zool. Nomencl.* 2 : 299—300) and has been embodied in *Opinion* 316 (*Ops. Decls. int. Comm. zool. Nomencl.* 9 : 91—106).

formerly owned by C. D. Sherborn. In his *Index Animalium* (sect. 2, vol. 1, 1922) Sherborn cites the titles of these works thus :

Prodr. osserv. Venezia 1804—7 (not published except as the three following) :

Tavola alfab. Conch. Adriat. 1804.

Prosp. classe dei Vermi. 1804.

Compendium di Zoologia (does not exist except as the following) :

Tavole per serve. conosc. classif. Anim. 1807 ; (Ed. 2, 1820, quoted by Meneghini in Oss. post. 1847, 114).

The *Nomenclator Animalium Generum et Subgenerum* of Schulze, Kükenthal, and Heider (vol. 1, 1926) cites these titles somewhat differently :

Tavola Alfabetica delle Conchiglie Adriatiche nominate dietro il sistema di Linneo, Edizione di Gmelin. Padua, 1788.

Prodromo di Osservazioni sopra alcuni Esseri viventi della Classe dei Vermi abitanti nell' Adriatico, nelle Lagune e Litorali Veneti—Prospetto della Classe dei Vermi. Padua, 1804.

Tavole per servire alla classificazione e conoscenza degle animali. Padua, 1807.

4. The only contemporary mention of Renier's work I have found is by G. B. Brocchi (1814, *Conchiologia fossile Subappennina* 1 : 55 [free translation]) :

. . . Signor Renieri, professor of natural history at the University of Padua, having been engaged for several years in the study of the organisms of the Adriatic, has provided me the opportunity of consulting the very rich series of shells which he collected in this sea and on which he published the Catalogue in 1804 . . .

Brocchi's book, published in Milan (not far from Padua), had wide circulation in Europe, and hence it carried some of Renier's zoological names with it. Save for citations from Brocchi, I find no further mention of Renier's early papers until 1847 when in another nearby Italian city, Venice, two authors, Meneghini and Nardo, published works based on Renier's manuscripts. As I have not been able to consult these, I quote the titles from Engelmann (*Bibliotheca zool.*, Bd. 1, 1861 : 273—274) :

Renier, St. A., Osservazioni postumi di zoologia Adriatica, pubblicati per cura dell' I. R. Istituto Veneto di scienze, lettere ed arti a studio del Prof. Meneghini. Con 16 tavole color, e 16 tavole nere. Venezia . . . 1847. Fol. In 100 Exemplaren gedrückt.

Nardo, Giov. Domin., Fauna marina volgare del Veneto estuario. Venezia, 1847. 8.

—Prospetto della Fauna marina del Veneto Estuario. Venezia, 1847. 8.

Hence, the date of validation of most of Renier's zoological names would seem to be 1847. One may question whether even Brocchi considered the names to have been published, for he cited no page references for the names of the species that he attributed to Renier, in marked contrast to the careful documentation given the names of species described by previous authors.

5. Renier's first work, the "*Tavola alfabetica . . .*" is assigned the date 1788 by Engelmann (*op. cit.* : 831) and by Schulze, Kükenthal, and Heider. This is manifestly incorrect, for the sections of Gmelin's edition of *Systema Naturae* to which it refers did not appear until 1790. In this *Tavola*, which consists of plates numbered 1 to 13, no new generic names were proposed, but Renier credited to himself many new trivial names, with footnote discussions. Although most of his descriptions are inadequate, references to previously published figures document a number of names. Fortunately, most of the figures had already been acceptably named by other authors. At least three of Renier's specific names, however, still crop up occasionally in lists—*Tellina serrata*, *Solecortus candidus*, and *Eulima incurva*. The first two are absolute *nomina nuda* in the *Tavola*. *Tellina serrata* was validated by Brocchi, 1814, and should be attributed to him. For *Solecortus candidus* (*Solen candidus* Renier) the synonym *S. scopula* Turton, 1822 has been adopted by Winckworth (1932, *J. Conch.* 19 : 246). Winckworth credited *Eulima incurva* (*Helix incurva* Renier, based on two published figures) to Bucquoy, Dautzenberg, and Dollfus, 1893, though one would wonder whether it may not have been validated earlier by Meneghini or Nardo. Some 40 other of Renier's specific names are listed by Bucquoy, Dautzenberg and Dollfus (1882—1898, *Mollusques Marins du Roussillon*) as synonyms. Hence, none of the names in the *Tavola alfab.* seems in need of conservation.

6. The pages of the *Prospetto della Classe dei Vermi . . .* are numbered as plates XV to XXVI. Several new generic and trivial names are proposed :

Discoïdes (sole species, *D. nutans* Renier, briefly described).

Polycitor (based on four species, of which two are previously described, *Alcyonium schlosseri* Pallas, 1766, and *A. conicum* Olivi, 1792, renamed by Renier).

Scolixedion (sole species *S. penulatum* Renier = *Serpula arenaria* Linnaeus, 1758).

Cerebratulus (based on two species, *C. bilineatus* Renier and *C. marginatus* Renier, both briefly described).

Aglaia [sic], *Rodens*, *Tricoelia* [sic], *Tubulanus* (*nomina nuda*).

7. As I have shown elsewhere (1951, *Nautilus* 65 (No. 1) : 8—15), the third work of Renier, the “Tavole”, consists of eighty synoptic tables covering five of the eleven classes into which he divided the animal kingdom. Names credited by Renier to himself appear in four of the tables :

Alcyonaria (based on *Alcyonium palmatum* Pallas, 1766, and *A. digitatum* Linnaeus, 1758).

Acicula (sole species, *A. macula* Renier, briefly described).

Rodens (sole species, *R. armillatus* Renier, briefly described).

Tricelia (sole species, *T. variopedata* Renier, briefly described).

Tuba (sole species, *T. divisa* Renier, briefly described).

Tubulanus (sole species, *T. polymorphus* Renier, briefly described).

Cystia (based on two species, *C. nivea* Renier, undescribed, and *Ostrea bullata* Born, 1778).

Arenaria (homonym of *Arenaria* Brisson, 1760).

Aglaja (based on two species, *A. depicta* Renier and *A. tricolorata* Renier, both described).

Discoides (sole species, *D. nutans* Renier, briefly described).

Cerebratulus, *Marginella*, *Imisia*, *Scolixedion* (*nomina nuda*).

8. Had these unfinished works of Renier been validly published in the years 1804 and 1807, the following generic names would be available for use : *Acicula* (1807), *Aglaja* (1807), *Alcyonaria* (1804), *Cerebratulus* (1804), *Cystia* (1807), *Discoides* (1807), *Polycitor* (1804), *Rodens* (1807), *Scolixedion* (1804), *Tricelia* (1807), *Tuba* (1807), and *Tubulanus* (1807). The question arises, how many have found their way into the literature? Of the names that fall within Mollusca—*Aglaja*, *Cystia*, *Discoides*, and *Scolixedion*—only *Aglaja* is in use, type genus of the family AGLAJIDAE (Gastropoda, Opisthobranchiata). It was adopted by Pilsbry in 1895 on the assumption, from the testimony of Meneghini, 1847, that it had priority over the long used *Doridium* Meckel, 1809. One may note that more specific names have been proposed under *Doridium* than under *Aglaja*, but readoption of *Doridium* might cause some confusion, as the family name DORIDIIDAE Bergh, 1893, is regrettably similar to DORIDIDAE, name of another family of Opisthobranchiata (type genus, *Doris*). Rejection of *Aglaja* Renier might also have repercussions in other fields of zoology, for there is an *Aglaja* Eschscholtz, 1825 in Coelenterata and *Aglaja* Swainson, 1827, in Aves (*vide* Sherborn). The question of conserving the name *Aglaja* is here left open for the expression of opinion by interested persons. *Discoides* is a *nomen dubium*, usually regarded as a synonym of *Pleurobranchus* Cuvier, 1804. *Cystia*, if validated, would displace *Limatula* Wood, 1839, and *Scolixedion* would displace *Serpulorbis* Sassi, 1827. In Mollusca, then, only *Aglaja* might justifiably be made a *nomen conservandum*. Regarding other Phyla, I

have thus far consulted only Dr. Olga Hartman, specialist in Annelida. She informs me that *Tricelia* is considered a synonym of *Chaetopterus* [Cuvier, 1830] and that *Cerebratulus* is in use in Nemertea. According to Bronn's *Klassen und Ordnungen des Thier-Reichs*, *Tubulanus* is also a genus of Nemertea, type of the family TUBULANIDAE. I have no information on the present status of *Acicula*, *Alcyonaria*, *Polycitor*, *Rodens*, and *Tuba*. If they are in use, specialists may wish to petition for their preservation. The generic name *Alcyonaria* Renier seems to have been overlooked by most nomenclators. It is not the *Alcyonaria* of Milne-Edwards, a subclass of Coelenterata.

9. There is in the "Tavole", 1807, a further problem of dual nomenclature for molluscan genera. A sample entry is here quoted :

Nome generico dei Molluschi	Nome generico delle conchiglie	Nome specifico di alcuni conchiglie
3. <i>Fistulanigenus</i>	<i>Fistulana</i> Lam.	<i>Ter. clava</i> Gmel.

Thus, the names in Renier's first column are compounded from the names in the second (the standard list of his day) by addition of the suffix *-genus* to denote the soft parts or the animal that resides in the shell. Perhaps these terms could be dismissed under *Opinion 72* as formulae, not true zoological names. Although they have been cited as available names by modern nomenclators, none has yet been adopted, so far as I can discover, and none would seem to serve a useful purpose. (It may be remarked that several of these refer to groups that would not now be placed in Mollusca.) The following note explains the nature of Renier's plates VII and VIII and the method used by him for numbering the terms which he employed :—

Renier's Tavole VII and VIII are really analytical charts, with descriptive text at the top and left side to group the organisms in morphologic categories. At the right were the series of columns described in my petition, listing common name, latin name, name of shell, name of animal, etc. The numerical arrangement began with an overall column followed immediately by a second which tallied all the genera in one of his selected morphologic categories. Major breaks in continuity in the second column here were caused by insertion, from time to time, of a group of "naked" mollusks among these that were "shelled". Thus, in Tav. VII, the numbers run concurrently to 5, these being soft-bodied groups, then the shelled ones begin at 1 in the second column, opposite 6 in the first. I would not need to mention this complication except that if the Commission wishes to list the names by numbers and uses only the second column, there would appear to be two number 8's, one opposite 13 of Tav. VII, the other opposite 95 of Tav. VIII. In making this transcript I have included several names to show you the system that should be omitted in the final version. These I have signalled by asterisks. It may be you will choose to use

the numbers in the first column. In this case the numeration would begin at 6 and would omit 83, 94, and 96 as well as 152—160. But if you choose to use both or to use the set that is nearest to the generic names in question, some explanation will have to be given for the breaks in sequence between 87—88 and after 142.

10. The following is a complete list of the names ending in *genus*, in the order given by Renier :—

Tav. VII—MOLLUSCHI

*1.	1.	Mammaria	40.	35.	Pectunculigenus
*2.	2.	Pyrosoma Peron	41.	36.	Nuculigenus
*3.	3.	Salpa	42.	37.	Anodontigenus
*4.	4.	Polycitor	43.	38.	Uniigenus
*5.	5.	Ascidia	44.	39.	Pandorigenus
6.	1.	Teredigenus	45.	40.	Corbuligenus
7.	2.	Pholadigenus	46.	41.	Diceratigenus
8.	3.	Fistulanigenus	47.	42.	Chamigenus
9.	4.	Saxicavigenus	48.	43.	Etheriigenus
10.	5.	Rupellarigenus	49.	44.	Hirundigenus
11.	6.	Petricoligenus	50.	45.	Malleigenus
12.	7.	Solenigenus	51.	46.	Pernigenus
13.	8.	Sanguinolarigenus	52.	47.	Crenatuligenus
14.	9.	Glycimerigenus	53.	48.	Mytiligenus
15.	10.	Myigenus	54.	49.	Modioligenus
16.	11.	Panopeigenus	55.	50.	Pinnigenus
17.	12.	Anatinigenus	56.	51.	Plancunigenus [sic]
18.	13.	Mactrigenus	57.	52.	Marginelligenus
19.	14.	Lutrarigenus	58.	53.	Limigenus
20.	15.	Crassatelligenus	59.	54.	Pedigenus
21.	16.	Ungulinigenus	60.	55.	Cystigenus
22.	17.	Tellinigenus	61.	56.	Imisigenus
23.	18.	Donacigenus	62.	57.	Pectinigenus
24.	19.	Cytherigenus	63.	58.	Spondyligenus
25.	20.	Venerigenus	64.	59.	Plicatuligenus
26.	21.	Erycinigenus	65.	60.	Gryphaeigenus
27.	22.	Capsigenus	66.	61.	Ostreigenus
28.	23.	Galateigenus	67.	62.	Vulselligenus
29.	24.	Cycladigenus	68.	63.	Anomigenus
30.	25.	Lucinigenus	69.	64.	Creniigenus
31.	26.	Venericardigenus	70.	65.	Calceoligenus
32.	27.	Cardigenus	71.	66.	Radiolithigenus
33.	28.	Isocardigenus	72.	67.	Orbiculigenus
34.	29.	Carditigenus	73.	68.	Terebratuligenus
35.	30.	Hippopigenus	74.	69.	Liguligenus
36.	31.	Tridacnigenus	75.	70.	Anatifigenus
37.	32.	Trigonigenus	76.	71.	Balanigenus
38.	33.	Cucullaeigenus	77.	72.	Tubicinelligenus
39.	34.	Archigenus	78.	73.	Coronuligenus

Tav. VIII.—MOLLUSCHI

79.	74.	Aspergilligenus	116.	107.	Cyclostomigenus
80.	75.	Siliquarigenus	117.	108.	Monodontigenus
81.	76.	Vermicularigenus	118.	109.	Delphinuligenus
82.	77.	{ Arenarigenus Scolixedion	119.	110.	Turbinigenus
*83.	6.		120.	111.	Solarigenus
		Phyllidia	121.	112.	Trochigenus
84.	78.	Patelligenus	122.	113.	Cerithiigenus
85.	79.	Fissurelligenus	123.	114.	Clavatuligenus
86.	80.	Emarginuligenus	124.	115.	Pleurotomigenus
87.	81.	Crepiduligenus	125.	116.	Turbinelligenus
88.	82.	Calyptraeigenus	126.	117.	Fasciolarigenus
89.	83.	Stomatiigenus	127.	118.	Pyruligenus
90.	84.	Haliotidigenus	128.	119.	Fusigenus
91.	85.	Concolepadigenus	129.	120.	Muricigenus
92.	86.	Planospirigenus	130.	121.	Rostellariigenus
93.	87.	Chitonigenus	131.	122.	Pterocerigenus
*94.	7.	Parmacella	132.	123.	Strombigenus
95.	8.	Testacelligenus	133.	124.	Cassigenus
*96.	9.	Limax	134.	124.	Harpigenus
97.	88.	Natichigenus	135.	126.	Doliigenus
98.	89.	Neritigenus	136.	127.	Terebrigenus
99.	90.	Helicinigenus	137.	128.	Eburnigenus
100.	91.	Helicigenus	138.	129.	Buccinigenus.
101.	92.	Planorbigenus	139.	130.	Purpurigenus
102.	93.	Ampullarigenus	140.	131.	Nassigenus
103.	94.	Auriculigenus	141.	132.	Cancellarigenus
104.	95.	Pyramidelligenus	142.	133.	Marginelligenus
105.	96.	Melanigenus	143.	134.	Columbelligenus
106.	97.	Lymneigenus	144.	135.	Mitrigenus
107.	98.	Achatinigenus	145.	136.	Volutigenus
108.	99.	Phasianelligenus	146.	137.	Ancilligenus
109.	100.	Volvarigenus	147.	148.	Olivigenus
110.	101.	Bulimigenus	148.	139.	Terebelligenus
111.	102.	Amphibulimigenus	149.	140.	Ovuligenus
112.	103.	Ianthinigenus	150.	141.	Cypraeigenus
113.	104.	Turritelligenus	151.	142.	Conigenus
114.	105.	Pupigenus	161.	18.	Sigaretigenus
115.	106.	Scalarigenus	162.	19.	Bulligenus

11. I concur with Dr. Cox in the belief that these papers of Renier's are "fragments of a work contemplated but never published". The lack of an over-all title page, the preservation of only a single known copy of the works, at the library of the University of Padua, the lack of agreement among bibliographers as to exact titles and dates, and the omission of Renier's generic names from nomenclators such as Agassiz (1842—46) and Herrmannsen (1846—49) [the name *Aglaia*

is listed in the supplement to the latter (1852) as, “ Renier (?1804) ”], all suggest that prior to 1847 Renier’s works above discussed existed only as proof-sheets or as charts set up in type for class-room use.

12. The International Commission on Zoological Nomenclature is now asked to take the following action supplementary to the action in regard to the *Tavola alfabetica delle Conchiglie Adriatiche* and the *Prospetto della Classe dei Vermi* prepared by Renier (S.A.) and commonly attributed to the year “1804” recommended in the application already submitted by Dr. L. R. Cox, namely that it should :—

- (1) rule that the work by Renier (S.A.) entitled *Tavole per servire alla classificazione e conoscenza degli Animali* and commonly attributed to the year “1807” was not published within the meaning of Article 25 of the *Règles* and therefore that no name acquired the status of availability by reason of appearing in the foregoing work ;
- (2) place the work specified in (1) above on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* ;
- (3) provide an opportunity to specialists to submit applications for the validation, under the Plenary Powers, of any of the under-mentioned generic names which may be shown to be in current use⁶ ;
 - (a) Names which first appeared in the *Prospetto* of 1804 :
 - (i) *Discoides* Renier
 - (ii) *Cerebratulus* Renier ;
 - (iii) *Polycitor* Renier ;
 - (iv) *Scolixedion* Renier ;
 - (b) Names which first appeared in the *Tavole* of 1807 :
 - (i) *Aglaja* Renier ;
 - (ii) *Alcyonaria* Renier ;
 - (iii) *Cystia* Renier ;
 - (iv) *Rodens* Renier ;
 - (v) *Tricelia* Renier ;
 - (vi) *Tuba* Renier ;
 - (vii) *Tubulanus* Renier ;
- (4) place on the *Official Index of Rejected and Invalid Generic Names in Zoology* :
 - (a) any of the names enumerated in (3) above which are not validated under the Plenary Powers in response to the appeal there suggested ;

⁶ Decisions on all the names here enumerated with the exception of the generic names *Cerebratulus*, *Polycitor*, *Aglaja* and *Tubulanus* and of a specific name (*variopedata*) associated with the generic name *Tricelia* have since been taken by the International Commission. The decision so taken has been embodied in *Opinion* 436 (shortly to be published in Volume 15 of the present Series).

- (b) the generic names having the termination “-genus” listed in paragraph 10 of the present application (unless this is considered impracticable, in which case a Ruling that these words are formulae and not zoological names is asked for) ;
- (5) place on the *Official Index of Rejected and Invalid Specific Names in Zoology* the specific names enumerated in paragraphs 5, 6 and 7 of the present application as names newly-proposed by Renier in the works there specified.

2. Supplementary application submitted by Dr. L. R. Cox (British Museum (Natural History), London) : On 27th August 1953, Dr. L. R. Cox (*British Museum (Natural History) London*), who was unaware of the fact that Dr. Myra Keen had submitted a request to the Commission for the rejection for nomenclatorial purposes of Renier's *Tavole serv. Class. Conn. Anim.*, himself submitted the following application⁷ in the same sense by way of a supplement to the application which he had previously submitted for the rejection of the *Prospetto* and the *Tavola alfabetica* of the same author :—

Supplementary Application concerning the Suppression of Works by S. A. Renier (1804 and 1807)

By L. R. COX, M.A., Sc.D., F.R.S.
(*British Museum (Natural History), London*)

An application for a Ruling that the *Prodromo* and *Prospetto della Classe dei Vermi* of S. A. Renier (1804) should not rank as publications within the meaning of Article 25 has been submitted by the present applicant (1951, *Bull. zool. Nomencl.* **2** : 299).

2. It was made clear that the application relating to the *Prodromo* covered the section entitled *Tavola alfabetica delle Conchiglie Adriatiche*. It is now proposed to extend the application to the same author's work said to have been entitled *Tavole per servire alla classificazione e conoscenza degle animali* and to have been published in 1807. (The title page is wanting in the only extant copy.)

⁷ The decision taken by the Commission on Dr. Cox's earlier application, by which the Commission rejected both the *Prospetto* and the *Tavola alfabetica*, was embodied in April 1954 in *Opinion* 316 which was published on 17th December of the same year (*Ops. Decls. int. Comm. zool. Nomencl.* **9** : 91—106).

3. The statements made in the previous application concerning the doubtful status of Renier's works as publications apply also to this last work. It is known only by a single printed copy in the library of the University of Padua and by two reduced photographic reproductions made for C. D. Sherborn. One reproduction is in the British Museum (Natural History), while the second has recently been acquired by the library of Stanford University, California. It is most improbable that this work was ever generally distributed. It consists of eight tables containing the outlines of schemes of classification, and in them a number of new generic and specific names are introduced.

4. The nomenclatorial problems raised by the 1807 work have been discussed by Dr. A. Myra Keen (1951, *Nautilus*, 65 : 8) in so far as they affect the mollusca. Renier introduced a scheme in which the soft parts received a distinct generic name ending in “-genus”, derived from that of the shell (e.g. *Teredigenus*, derived from *Teredo*). Miss Keen states that “I do not agree that these names ending in -genus are either validly proposed or valid emendations” and her final conclusion is that “Renier's contributions to molluscan taxonomy can be reduced to four generic names, only one of which, *Aglaja* is in current use. Two, *Scolixedion* and *Cystia*, will displace familiar names unless suppressed by action of the International Commission or unless it can be shown that the type species are *species dubia*. The fourth, *Discoides*, remains for specialists in Opisthobranchiata to evaluate”.

5. The generic name *Aglaja* Renier, which appeared both in his “Prospetto . . . Vermi” (1804) and his “Tavole . . . animali” (1807?) has latterly been used for the genus formerly known generally as *Doridium* Meckel, 1809, type genus of a family DORIDIIDAE. A reversion to this name *Doridium* would not create confusion, for it is used for the genus in such standard works as P. Fischer's “Manuel de Conchyliologie” (1880—1887) and A. H. Cooke's “Molluscs” (*Cambridge Natural History*, 1895).

II. THE SUBSEQUENT HISTORY OF THE CASE

3. Registration of the present applications : Upon the receipt of Dr. Myra Keen's application the question of the possible rejection of Renier's *Tavole per servire alle classificazione e connescenza degli Animali* was allotted the Registered Number

Z.N.(S.) 688. The same Registered Number was allotted to Dr. L. R. Cox's supplementary application when it was received.

4. Publication of the present applications : The applications submitted by Dr. Myra Keen and Dr. L. R. Cox respectively were sent to the printer on 13th May 1954 and were published in Part 9 of volume 9 of the *Bulletin of Zoological Nomenclature* on 22nd October of the same year (Keen, 1954, *Bull. zool. Nomencl.* 9 : 257—262 ; Cox, 1954, *ibid.* 9 : 265).

5. Action taken to bring to the attention of specialists the suggestion by Dr. Myra Keen that consideration should be given to the validation of four generic names used in Renier's "Prospetto" and of seven such names used in that author's "Tavole serv. Class. Conn. Anim.": Prior to the publication of Dr. Keen's application for the rejection for nomenclatorial purposes of Renier's *Tavole serv. Class. Conn. Anim.*, consideration was given by the Secretary to the Commission to the question of the measures to be taken to bring Dr. Keen's suggestions to the attention of interested specialists. Mr. Hemming decided that the best course would be to adopt a twofold approach under which (1) short notices relating to the foregoing proposals prepared by himself would be published in the *Bulletin of Zoological Nomenclature* concurrently with the publication of Dr. Keen's application and (2) Public Notice would be given at the same time of the possible use by the Commission of its Plenary Powers for the validation of some or all of the eleven generic names concerned, together with the specific names associated by Renier with those generic names. The notes so prepared by Mr. Hemming on the four *Prospetto* names (*Discooides* ; *Cerebratulus* ; *Polycitor* ; *Scolixedion*) and on the seven *Tavole* names (*Aglaja* ; *Alcyonaria* ; *Cystia* ; *Rodens* ; *Tricelia* ; *Tuba* ; *Rubulanus*) were accordingly published in Part 9 of Volume 9 of the *Bulletin* on 22nd October 1954 (*Bull. zool. Nomencl.* 9 : 263 and 264 respectively). At the same time Public Notice of the possible use by the International Commission of its Plenary Powers for the purpose of validating some or all of the foregoing names was given under the procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 51—56) on 22nd October 1954 (a) in Part 9 of

Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Keen's application and Mr. Hemming's supplementary notes were published) and (b) to the other prescribed serial publications. At the same time such Notice was given also to a number of general zoological serial publications. Particulars of the procedure later adopted for dealing with this portion of Dr. Keen's application are given in paragraph 11 of the present *Opinion*.

6. No objection received to the proposals submitted by Dr. Myra Keen and Dr. L. R. Cox respectively : The publication of the applications by Dr. Myra Keen and Dr. L. R. Cox respectively for the rejection for nomenclatorial purposes of Renier's *Tavole serv. Class. Conn. Anim.* elicited no objection to the action proposed from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. Issue of Voting Paper V.P.(55)2 : On 19th May 1955, a Voting Paper (V.P.(55)2) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to certain works by Renier (S.A.), as of 1804 and 1807, as set out in Points (1), (2), (4)(b) and (5) in paragraph 12 on page 262 of vol. 9 of the *Bulletin of Zoological Nomenclature*" [i.e. in the Points so numbered in the application by Dr. Myra Keen reproduced in the first paragraph of the present *Opinion*].

8. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 19th August 1955.

9. Particulars of the Voting on Voting Paper V.P.(55)2 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)2 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-five (25) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Hering ; Vokes ; Mayr ;
Lemche ; do Amaral ; Prantl ; Bradley (J.C.) ; Stoll ;
Jaczewski ; Dymond ; Esaki ; Kühnelt ; Tortonese ;
Hankó ; Cabrera ; Sylvester-Bradley ; Riley ; Key ;
Bonnet ; Hemming ; Mertens ; Miller ; Boschma ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned :*

None.

10. Declaration of Result of Vote : On 17th October 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P. (55)2, signed a Certificate that the Votes cast were as set out in paragraph 9 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

11. Clarification of certain matters arising on Dr. Myra Keen's application and decision on procedure to be adopted for dealing with the names specified in paragraph 12(3) of that application : On 14th April 1956 Mr. Hemming as Secretary executed the following Minute (a) clarifying the proposals submitted by Dr. Myra Keen in paragraphs 5, 6 and 7 of her application and (b) laying down the procedure to be adopted for the further consideration of the eleven generic names, of which four originated in Renier's *Prospecto Class. Verm.* and seven in that author's *Tavole serv.*

Class. Conn. Anim. specified in paragraph 12(3) of the foregoing application :—

Clarification of the proposals for the addition of names to the “ Official Indexes of Rejected and Invalid Names in Zoology ” submitted in paragraphs 5, 6 and 7 in Dr. Myra Keen’s Application Z.N.(S.) 688 relating to certain fragmentary works by S. A. Renier, and of other matters arising on that application

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

In her application Z.N.(S.) 688 relating to the fragmentary works by S. A. Renier, Dr. Myra Keen enumerated in paragraphs 5, 6 and 8 certain names which first appeared in these works and in the concluding paragraph of her application recommended that such of these names as the Commission might decide not to validate under its Plenary Powers or to reserve for possible validation under those Powers should be placed on the *Official Indexes of Rejected and Invalid Names in Zoology*. When later I had occasion to ask Dr. Keen to furnish me for the foregoing purpose with the page or *Tavola* number to be cited for these names, I took the opportunity to check the list of names to be placed on the *Official Indexes*. The list so established with the appropriate bibliographical references is as follows :—

- (1) *New Names included in Renier’s “ Tavola alfab. Conch. adriat. ”, commonly attributed to the year “ 1804 ” :*

<i>Name</i>	<i>Page Reference</i>
<i>Solen candidus</i> Renier	: V
<i>Tellina serrata</i> Renier	: VI
<i>Helix incurva</i> Renier	: XI

- (2) *New Names included in Renier’s “ Prospetto Class. Verm. ”, commonly attributed to the year “ 1804 ” :*

<i>Aglaiia</i> [sic] Renier	: XVI
<i>Rodens</i> Renier	: XVIII
<i>Tricoelia</i> [sic] Renier	: XVIII
<i>Tubulanus</i> Renier	: XX

- (3) *New Names included in Renier’s “ Tavole per servire alle classificazione e conoscenza degli Animali ”, commonly attributed to the year “ 1807 ” :*

<i>Acicula</i> Renier	: Tav. VI
<i>Acicula macula</i> Renier	: Tav. VI
<i>Arenaria</i> Renier	: Tav. VIII
<i>Imisia</i> Renier	: Tav. VII
<i>Marginella</i> Renier	: Tav. VII

2. The generic name *Acicula* Renier, [1807], was placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* by the Commission by the Ruling given in its *Opinion* 344 (the *Opinion* embodying the Commission's decision on the *Acme/Acmea/Acmaea/Acicula* complex of names) but none of the other generic names of Renier's listed in the preceding paragraph had been dealt with by the Commission prior to the receipt of Dr. Myra Keen's application. Accordingly, under the vote taken by the Commission on Voting Paper V.P.(55)2 the names listed in the foregoing paragraph, other than the generic name *Acicula* Renier, [1807], are now to be placed on the appropriate *Official Index of Rejected and Invalid Names in Zoology*.

3. Under the vote taken by the Commission on the Voting Paper referred to above, decisions have been taken on all the matters raised in the applications submitted by Dr. Myra Keen and by Dr. L. R. Cox respectively, except as regards the under-mentioned names specified in paragraph 12(3) of Dr. Keen's application, where it was proposed that an opportunity should first be given to specialists to indicate whether they considered that some or all of the names in question should be validated by the Commission under its Plenary Powers : (1) Names as used by Renier in his *Prospetto Class. Verm.* as of 1804 : (a) *Discooides* ; (b) *Cerebratulus* ; (c) *Polycitor* ; (d) *Scolixedion* ; (2) Names as used by Renier in his *Tavole serv. Class. Conn. Anim.* as of 1807 : (a) *Aglaja* ; (b) *Alcyonaria* ; (c) *Cystia* ; (d) *Rodens* ; (e) *Tricelia* ; (f) *Tuba* ; (g) *Tubulanus*. In order that the Ruling to be given in the *Opinion* embodying the Commission's decision in the present case may comply with the General Directive issued by the Thirteenth International Congress of Zoology, Paris, 1948, that in every case the Ruling to be given by the Commission shall cover all parts of the application submitted, I, as Secretary, hereby direct that there be added to the Ruling to be given in the present case a provision prescribing that the future status to be accorded to the eleven generic names specified above be reserved for further consideration. In order to facilitate the consideration of the disposal of the foregoing names, I further direct that the documents relating thereto, of which those relating to names used in the *Prospetto* are at present filed under the Registered Number Z.N.(S.) 832 and those relating to names used in the *Tavole* under the Registered Number Z.N.(S.) 897, be re-registered under the Number Z.N.(S.) 1091 and that the outstanding enquiries in regard to these names be completed as quickly as possible with a view to the submission to the Commission of proposals for the final disposal of these names.

4. It has been known for some time—see Cox, 1954, *Bull. zool. Nomencl.* 9 : 265—that the unique copy of Renier's *Tavole* of 1807 in the library of the University of Padua, of which a photographic copy has been deposited in the library of the British Museum (Natural History), London, lacks the title page. I have now been informed by

Dr. L. R. Cox that the title [*Tavole per servire alle classificazione e conoscenza degli Animali*] customarily applied to this work is derived only from Engelmann's *Bibl. Hist. nat.* (: 339) and that there is no evidence to show that a title page was ever published. In these circumstances the "Tavole" must be regarded as having been published without a title page. As some title must be assigned to this work for the purposes of citation and for recording in the *Official Indexes* the names which first appeared in it, the title given by Engelman must be used, this title having the merit of long usage. In all references given in the *Official Indexes* for names first used in this work it will, however, be necessary to enclose the title within square brackets to signify that it is a reconstructed title and that there is no evidence to show that it was ever printed as the title of this work.

12. Preparation of the Ruling given in the present "Opinion" :

On 15th April 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)2, subject to the clarifications specified in the Minute executed by the Secretary earlier on the same day. The text of the Minute here referred to has been given in paragraph 11 above.

13. Original References : The original references for the generic names having the termination "-genus" placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* by the Ruling given in the present *Opinion* are as set out in paragraph 10 of the application submitted by Dr. Myra Keen which has been reproduced in the first paragraph of the present *Opinion*. The original references for all the other names placed on *Official Indexes* by the foregoing Ruling are as given in the Minute executed by the Secretary on 14th April 1956, the text of which has been reproduced in paragraph 11 of the present *Opinion*. Wherever it is necessary to refer to the title "*Tavole per servire alle classificazione e conoscenza degli Animali*" as the title for the fragment of Renier's work commonly treated as being of 1807, that title is, for the reasons given in paragraph 4 of the Minute by the Secretary referred to above, to be cited in square brackets.

14. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in

dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

15. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-Seven (427) of the International Commission on Zoological Nomenclature.

DONE in London, this Sixteenth day of April, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

VOLUME 14. Part 12. Pp. 311—322

OPINION 428

Suppression under the Plenary Powers of the specific name *royerianus* d'Orbigny, 1841, as published in the combination *Ammonites royerianus* and designation under the same Powers of a type species in harmony with accustomed practice for the genus *Cheloniceras*, Hyatt, 1903 (Class Cephalopoda, Order Ammonoidea)

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 428

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(*Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology*)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(1st January 1947)

Senor Dr. Angel CABRERA (*La Plata, Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

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Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

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Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*) (12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum V Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernest MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

OPINION 428

SUPPRESSION UNDER THE PLENARY POWERS OF THE SPECIFIC NAME "ROYERIANUS" D'ORBIGNY, 1841, AS PUBLISHED IN THE COMBINATION "AMMONITES ROYERIANUS" AND DESIGNATION UNDER THE SAME POWERS OF A TYPE SPECIES IN HARMONY WITH ACCUSTOMED PRACTICE FOR THE GENUS "CHELONICERAS" HYATT, 1903 (CLASS CEPHALOPODA, ORDER AMMONOIDEA)

RULING :—(1) The following action is hereby taken under the Plenary Powers :—

- (a) The specific name *royerianus* d'Orbigny, 1841, as published in the combination *Ammonites royerianus*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.
- (b) All selections of type species for the genus *Cheloniceras* Hyatt, 1903 (Class Cephalopoda, Order Ammonoidea) made prior to the present Ruling are hereby set aside and the nominal species *Ammonites cornuelianus* d'Orbigny, 1841, is hereby designated to be the type species of the foregoing genus.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers 1021 and 1022 respectively :—

- (a) *Cheloniceras* Hyatt, 1903 (gender : neuter) (type species, by designation under the Plenary Powers, under (1)(b) above : *Ammonites cornuelianus* d'Orbigny, 1841) ;

(b) *Megatyloceras* Humphrey, 1949 (gender : neuter) (type species, by original designation : *Douvilleiceras coronatum* Rouchadzé, 1932).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers 1040 and 1041 respectively :—

(a) *cornuelianus* d'Orbigny, 1841, as published in the combination *Ammonites cornuelianus* (specific name of type species of *Chelonicerias* Hyatt, 1903) ;

(b) *coronatum* Rouchadzé, 1932, as published in the combination *Douvilleiceras coronatum* (specific name of type species of *Megatyloceras* Humphrey, 1949).

(4) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Number 357 : *royerianus* d'Orbigny, 1841, as published in the combination *Ammonites royerianus*, as suppressed under the Plenary Powers under (1)(a) above.

(5) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Number 90 : CHELONICERATIDAE Spath (L.F.), 1923 (type genus : *Chelonicerias* Hyatt, 1903).

I. THE STATEMENT OF THE CASE

On 8th September 1952 Mr. R. Casey (*Geological Survey and Museum, London*) and Mr. C. W. Wright (*London*) submitted the following application to the International Commission on Zoological Nomenclature for the use of its Plenary Powers to

vary the type species of the genus *Cheloniceras* Hyatt, 1903 (Class Cephalopoda, Order Ammonoidea) in order to validate existing nomenclatorial practice :—

Proposed use of the Plenary Powers to vary the type species of the genus “*Cheloniceras*” Hyatt, 1903 (Class Cephalopoda, Order Ammonoidea), in order to validate existing nomenclatorial practice

By R. CASEY

(*Geological Survey and Museum, London*)

C. W. WRIGHT, M.A.

(*London*)

The object of the present application is to seek the help of the International Commission on Zoological Nomenclature in stabilising the nomenclature of the genus *Cheloniceras* Hyatt, 1903. It is hoped that the Commission will be able to give early consideration to this case since a decision is required in connection with the preparation of the *Treatise on Invertebrate Palaeontology*.

2. The generic name *Cheloniceras* was published in 1903 in “*Pseudoceratites of the Cretaceous*”, a posthumous monograph of A. Hyatt, edited by T. W. Stanton. It was introduced in an editorial footnote (Hyatt, 1903 : 101), which reads as follows :—

“ In the manuscript a sheet is inserted just before *Vascoceras* with the heading ‘Cosmoceratida’, followed by ‘In family description notice resemblance of form to *Aspidoc.* of Jura as more remote than to *Cheloniceras* of the Cretacic’. Another memorandum bears pencil-sketch copies of d’Orbigny’s figures of *Ammonites royerianus* (Pal. Fr. Terr. Crét., 1, pl. 112, figs. 3, 4) labelled *Cheloniceras royerianus*, indicating that he had probably selected this species as the type of a new genus . . . T.W.S. ”

3. Notwithstanding the somewhat unusual circumstances of its introduction, the nominal genus *Cheloniceras*, with authorship credited to Hyatt and with *Ammonites royerianus* d’Orbigny (1841, *Paléont. française*, Terr. crét. 1 Céphalopodes : 365, pl. 112, figs. 3—5) as type-species, has since been universally accepted by ammonite specialists (e.g. Spath, 1921 : 316 ; Roman, 1938 : 426 ; Humphrey, 1949 : 143). It has come to occupy an important position in Cretaceous ammonitology and has formed the base of the family name CHELONICERATIDAE (Spath, 1923 : 35). Nomenclatorial stability of

the genus is threatened, however, by inability to assess satisfactorily the taxonomic characters of its type-species.

4. D'Orbigny's holograph of *Ammonites royerianus* illustrates an immature ammonite from the Aptian of Bailly-aux-Forges, Wassy (Haute-Marne), France, which is stated (Orbigny, 1841 : 365—366) to be 12 mm. in diameter and to be represented in natural size. As noted by Stoyanow (1949 : 104), however, the illustration is of 20 mm. diameter. In any case, the specimen is too immature for positive determination below family level, and authors have been obliged to base their conception of *Cheloniceras* on such species as *A. cornuelianus* d'Orbigny, 1841 (*Paléont. française*, Terr. crét. 1 Céphalopodes : 354, pl. 112, figs. 1—2) and *A. martini* d'Orbigny, of which there is abundant well-illustrated material. Kilian (1913 : 340) referred *A. royerianus* to the same group as *A. ricordeanus* d'Orbigny (now assigned to the genus *Megatyloceras* Humphrey, 1949, *Bull. geol. Soc. Amer.* 60 (No. 1) : 149), while Rodighiero (1922 : 63, 67, 69) even supposed it to belong to the genus *Astiericeras* Parona and Bonarelli (family ASTIERICERATIDAE). On the other hand, Nikchitch (1915 : 3, 4, 13, 50) asserted that *C. royerianum* is merely the young of *C. cornuelianum*, and supported this assertion by illustrations of the young stages of *C. cornuelianum*. Nikchitch's views have been discussed by Stoyanow (1949 : 104), who has pointed out that in this connection it is probably significant that the type-specimens of *A. royerianus* and *A. cornuelianus* were obtained from the same area and from the same stratigraphical horizon and that they were described in immediate succession by d'Orbigny and figured on the same plate. Although we think it very likely that *A. royerianus* is the young stage of a species of the *cornuelianum* group, we do not consider its reference to *C. cornuelianum* to be beyond doubt. There are a number of allied species (e.g. *C. crassum* Spath and *C. kiliani* von Koenen) which are indistinguishable from *A. royerianus* and *A. cornuelianus* at 12 mm. diameter ; moreover, if d'Orbigny's type specimen of *A. royerianus* is indeed 20 mm. in diameter it is not possible to exclude certain species of *Megatyloceras* as being congeneric. Hence the nomenclature of both *Cheloniceras* and *Megatyloceras* is insecure.

5. Our efforts to trace the original specimen (or specimens) on which the holograph of *A. royerianus* is based have been unsuccessful. In reply to our enquiries (through Mme. E. Basse de Ménorval), M. Sornay of the Muséum National d'Histoire Naturelle, wherein the d'Orbigny Collection is housed, has informed us (*in litt.* 18.7.52) that the d'Orbigny Collection now contains nothing which could have served as the basis for the illustration of *A. royerianus* and that all possible topotype specimens have been destroyed by decomposition. It is suggested that the specimen may have been returned to the Royer Collection, but the whereabouts of this Collection, if it still exists, is not known.

6. From the foregoing it is clear that doubt exists, and will always exist, as to the identity of the taxonomic species which is represented by the nominal species *Ammonites royerianus* d'Orbigny, and so long as this species remains the type species of the genus *Chelonicerias*, the nomenclature of that genus, of *Megatyloceras*, and of the family CHELONICERATIDAE rests upon an insecure basis. In order to remove this insecurity and to validate existing nomenclatorial practice in regard to the genus *Chelonicerias*, we ask the International Commission on Zoological Nomenclature :—

(1) to use its Plenary Powers :—

- (a) to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy the specific name *royerianus* d'Orbigny, 1841, as published in the combination *Ammonites royerianus* ;
- (b) to set aside all selections of type-species for the genus *Chelonicerias* Hyatt, 1903, made prior to the proposed decision, and to designate *Ammonites cornuelianus* d'Orbigny, 1841, to be the type-species of the foregoing genus ;

(2) to place the following generic names on the *Official List of Generic Names in Zoology* :—

- (a) *Chelonicerias* Hyatt, 1903 (type-species, by designation under the Plenary Powers, as proposed in (1)(b) above : *Ammonites cornuelianus* d'Orbigny, 1841) (gender of name : neuter) ;
- (b) *Megatyloceras* Humphrey, 1949 (type-species by original designation : *Douvilleicerias coronatum* Rouchadzé, 1932, *Bull. Inst. géol. Géorgie* 1(3) : 195, pl. 3, fig. 4 ; text-figs. 12, 13) (gender of name : neuter) ;

(3) to place the following specific names on the *Official List of Specific Names in Zoology* :—

- (a) *cornuelianus* d'Orbigny, 1841, as published in the combination *Ammonites cornuelianus* ;
- (b) *coronatum* Rouchadzé, 1932, as published in the combination *Douvilleicerias coronatum* ;

(4) to place on the *Official Index of Rejected and Invalid Specific Names in Zoology* the specific name *royerianus* d'Orbigny, 1841, as published in the combination *Ammonites royerianus*, as proposed, under (1)(a) above, to be suppressed under the Plenary Powers.

References

- Hyatt, A., 1903 : Pseudoceratites of the Cretaceous, edited by T. W. Stanton. *U.S. geol. Surv. Mon.* **44**
- Humphrey, W. E., 1949 : Geology of the Sierra de los Muertos Area, Mexico, etc. *Bull. geol. Soc. Amer.* **60** (No. 1) : 89—176
- Kilian, W., 1913 : in Frech, *Lethaea geognostica*, **2**(3)
- Nikchitch, J., 1915 : Représentants du genre Douvilleiceras de l'Aptien, etc. *Com. Géol. Mém.* (n.s.) **121**
- Orbigny, A. d', 1841 : *Paléont. française*, Terr. crét., **1**, Céphalopodes
- Rodighiero, A., 1922 : Sistema Cretaceo Veneto Occidentale, etc. *Palaeont. ital.*, **25** : 39—125
- Roman, F., 1938 : *Les Ammonites jurassiques et crétacées. Essai de genera*, Paris
- Spath, L. F., 1921 : On Cretaceous Cephalopoda from Zululand. *Ann. South African Mus.* **12** : 217—321
- 1923 : A Monograph of the Ammonoidea of the Gault. Pt. 1. *Paleont. Soc. London*
- Stoyanow, A., 1949 : Lower Cretaceous Stratigraphy in south-eastern Arizona. *Mem. geol. Soc. Amer.* **38**

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of the joint application by Mr. Casey and Mr. Wright the question of the designation for the genus *Chelonicerias* Hyatt of a type species in harmony with accustomed usage was allotted the Registered Number Z.N.(S.) 703.

3. Publication of the present application : The present was one of a number of applications which were sent to the printer prior to the opening in Copenhagen in July 1953 of the Fourteenth International Congress of Zoology but with which, owing to pressure of work in the Office of the Commission arising out of

the Congress, it was found impossible to make any progress with until 1954. Eventually this application was published on 22nd October of that year in Part 9 of Volume 9 of the *Bulletin of Zoological Nomenclature* (Casey & Wright, 1954, *Bull. zool. Nomencl.* 9 : 278—280).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Copenhagen, 1948 (1950, *Bull. zool. Nomencl.* 4 : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 22nd October 1954 (a) in Part 9 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which the joint application of Mr. Casey and Mr. Wright was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to a number of palaeontological serials in Europe and America.

5. No objection received : The issue of the Public Notices specified in paragraph 4 above elicited no objection to the action proposed from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

6. Issue of Voting Paper V.P.(55)4 : On 27th May 1955 a Voting Paper (V.P.(55)4) was issued in which the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the generic name *Chelonicerias* Hyatt, 1903, as set out in Points (1) to (4) in paragraph 6 at the foot of page 279 and continued on page 280 in Volume 9 of the *Bulletin of Zoological Nomenclature* ” [i.e. in the Points numbered as above in the application by Mr. R. Casey and Mr. C. W. Wright reproduced in the first paragraph of the present *Opinion*].

7. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 27th August 1955.

8. Particulars of the Voting on Voting Paper V.P.(55)4 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)4 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-five (25) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Stoll ; Vokes ; Hering ;
 Esaki ; do Amaral ; Mayr ; Kühnelt ; Dymond ;
 Tortonese ; Hankó ; Bradley (J.C.) ; Lemche ;
 Cabrera ; Prantl ; Riley ; Key ; Bonnet ; Hemming ;
 Jaczewski ; Mertens ; Sylvester-Bradley ; Miller ;
 Boschma ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned :*

None.

9. Declaration of Result of Vote : On 17th October 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55)4, signed a Certificate that the Votes cast were as set out in paragraph 8 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

10. Addition of the family-group name “CHELONICERATIDAE” Spath (L.F.), 1923, to the “ Official List of Family-Group Names in Zoology ” : On 11th May 1956 Mr. Hemming, as Secretary, executed the following Minute relative to the addition of the

family-group name CHELONICERATIDAE Spath (L.F.), 1923, to the *Official List of Family-Group Names in Zoology* :—

**Addition of the name "CHELONICERATIDAE" Spath
(L.F.), 1923, to the "Official List of Family-Group Names
in Zoology"**

MINUTE by FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

Although not published until 1954 the application regarding the generic name *Chelonicerias* Hyatt, 1903, submitted jointly by Mr. R. Casey and Mr. C. W. Wright was actually sent to the printer before the opening of the Fourteenth International Congress of Zoology, Copenhagen, 1953. It was inevitable therefore that this application should contain no proposals relating to the placing of names on the *Official List of Family-Group Names in Zoology*. The applicants made it clear, however, that a considerable part of their case for the use of the Plenary Powers was directed towards securing a firm basis for the family name CHELONICERATIDAE Spath (L.F.), 1923, which, as they pointed out, was in a precarious position, so long as doubts continued in regard to the interpretation of the type species of *Chelonicerias* Hyatt, its type genus.

2. In these circumstances and having regard to the General Directive issued to the Commission by the Copenhagen Congress in the matter of the foregoing *Official List*, I hereby direct, as Secretary to the Commission, that the Ruling to be included in the *Opinion* embodying the decision of the Commission in regard to the name *Chelonicerias* Hyatt, shall include a direction placing the family-group name CHELONICERATIDAE Spath, 1923, based on the foregoing generic name, on the *Official List of Family-Group Names in Zoology*.

11. Preparation of the Ruling given in the present "Opinion" :
On 12th May 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)4, subject to the amplification specified in the Minute executed by the Secretary on 11th May 1956, the text of which has been reproduced in paragraph 10 of the present *Opinion*.

12. Original References : The following are the original references for the generic and specific names placed on *Official*

Lists and Official Indexes by the Ruling given in the present *Opinion* :—

*Chelonicer*s Hyatt, 1903, *U.S. geol. Surv. Mon.* **44** : 101 footnote, 129

cornuelianus, *Ammonites*, d'Orbigny, 1841, *Paléont. franc.*, Terr. cré. **1** Céphalopodes : 364, pl. 112, figs. 1, 2

coronatum, *Douvilleicer*s Rouchadzé, 1932, *Bull. Inst. géol. Géorgie* **1**(3) : 195, pl. 3, fig. 4, text figs. 12, 13

*Megatylocer*s Humphrey, 1949, *Bull. geol. Soc. Amer.* **60** (No. 1) : 149

royerianus, *Ammonites*, d'Orbigny, 1841, *Paléont. franc.*, Terr. cré. **1** Céphalopodes : 365, pl. 112, figs. 3—5

13. The following is the original reference for the family-group name placed on the *Official List* of names of taxa of this category by the Ruling given in the present *Opinion* : CHELONICERATIDAE Spath (L.F.), 1923, *Mon. Ammonoid. Gault* Pt. 1 (Palaeont. Soc. Lond.) : 35.

14. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

15. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-Eight (428) of the International Commission on Zoological Nomenclature.

DONE in London, this Twelfth day of May, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 13. Pp. 323—338

OPINION 429

Direction under the Plenary Powers limiting to suppression for the purposes of the Law of Priority the suppression of the generic name *Argus* Bohadsch, 1761 (Class Gastropoda) prescribed by the Ruling given in *Opinion* 185 thereby securing that the generic name *Argus* Scopoli, 1763 (Class Insecta, Order Lepidoptera) shall remain invalid under the Law of Homonymy

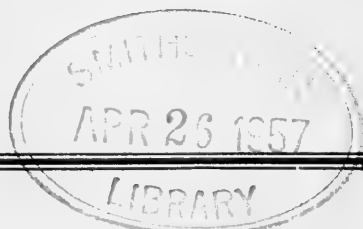
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 429

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology)

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Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a. M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th July 1950)

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Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)

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Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*) (12th August 1953)

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Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, Berkeley, California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*) (6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale, "G. Doria," Genova, Italy*) (16th December 1954)

OPINION 429

DIRECTION UNDER THE PLENARY POWERS LIMITING TO SUPPRESSION FOR THE PURPOSES OF THE LAW OF PRIORITY THE SUPPRESSION OF THE GENERIC NAME “ ARGUS ” BOHADSCH, 1761 (CLASS GASTROPODA) PRESCRIBED BY THE RULING GIVEN IN “ OPINION ” 185, THEREBY SECURING THAT THE GENERIC NAME “ ARGUS ” SCOPOLI, 1763 (CLASS INSECTA, ORDER LEPIDOPTERA) SHALL REMAIN INVALID UNDER THE LAW OF HOMONYMY

RULING :—(1) Under the Plenary Powers it is hereby directed that the suppression of the generic name *Argus* Bohadsch (J.B.), 1761 (Class Gastropoda) resulting from the suppression under the foregoing Powers of the above author's work entitled *De Quibusdam Animalibus marinis . . . Liber* by the Ruling given in *Opinion* 185, be limited to suppression for the purposes of the Law of Priority, the status of the above name under the Law of Homonymy remaining unimpaired.

(2) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid*

Generic Names in Zoology with the Name Numbers 732 to 734 respectively :—

- (a) *Argus* Bohadsch, 1761, as suppressed under the Plenary Powers under (1) above for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (b) *Argus* Scopoli, 1763 (a junior homonym of *Argus* Bohadsch, 1761) ;
- (c) *Argus* Boisduval, [1832] (a junior homonym of *Argus* Bohadsch, 1761).

(3) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1023 : *Lysandra* Hemming, 1933 (gender : feminine) (type species, by original designation : *Papilio coridon* Poda, 1761) (for use by specialists who consider that the above species is generically distinct from *Papilio icarus* Rottemburg, 1775, the type species of *Polyommatus* Latreille, 1804).

(4) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name Number 1042 : *coridon* Poda, 1761, as published in the combination *Papilio coridon* (specific name of type species of *Lysandra* Hemming, 1933).

(5) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Number 358 : *corydon* [Denis & Schiffermüller], 1775, as published in the combination *Papilio corydon* (an Invalid Emendation of *coridon* Poda, 1761, as published in the combination *Papilio coridon*).

I. THE STATEMENT OF THE CASE

On 10th October 1952 Mr. Francis Hemming, C.M.G., C.B.E. (London) and Mr. Cyril F. dos Passos (*Research Associate, Department of Insects and Spiders, The American Museum of Natural History, New York*) submitted the following application to the International Commission on Zoological Nomenclature for the limitation of the Ruling given in *Opinion* 185 (1944, *Ops. Decls. int. Comm. zool. Nomencl.* 3(4) : 37—52), in which the work by Bohadsch (J.B) published in 1761 under the title *De Quisbusdam Animalibus marinis . . . Liber* had been suppressed under the Plenary Powers, in such a way that the consequent suppression of the generic name *Argus* Bohadsch, 1761 (Class Gastropoda) did not validate the name *Argus* Scopoli, 1763, a name which for long had been rejected as a junior homonym of *Argus* Bohadsch, the revalidation of which would cause unnecessary confusion and name-changing in the Order Lepidoptera (Class Insecta) :—

Proposed limitation to the purposes of the Law of Priority of the suppression of the name “Argus” Bohadsch, 1761 (Class Gastropoda) effected in “Opinion” 185, in order to prevent the confusion which would otherwise arise in the Class Insecta, Order Lepidoptera

By FRANCIS HEMMING, C.M.G., C.B.E.

(London)

and

CYRIL F. DOS PASSOS

(*Research Associate, Department of Insects and Spiders, The American Museum of Natural History, New York*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to limit to the purposes of the Law of Priority the suppression, under *Opinion* 185, of the generic name *Argus* Bohadsch, 1761 (*De Quibusdam Anim. marinis . . . Liber* : 56) (Class Gastropoda) in order to prevent the confusion which would

otherwise be inevitable in the nomenclature of the Lepidoptera Rhopalocera through the emergence of the name *Argus* Scopoli, 1763 (*Ent. carn.* : 176) as the oldest available name for a well-known genus of the family LYCAENIDAE. The details of this case are set out briefly below.

2. By a decision dated 17th July 1944 the International Commission on Zoological Nomenclature unanimously adopted an *Opinion* under which it approved a proposal which had been submitted to it by Dr. H. Engel (*Zoologisch Museum, Amsterdam, The Netherlands*) that, under suspension of the Rules, Bohadsch, 1761, *De Quibusdam Animalibus marinis . . . Liber* and the German translation of that work published by N. G. Leske in 1776 should be suppressed for all nomenclatorial purposes. This decision was embodied in the Commission's *Opinion* 185 and published on 17th October 1944 (*Ops. Decls. int. Comm. zool. Nomencl.* 3(4) : 37—52).

3. One of the effects of the foregoing decision was to suppress for all nomenclatorial purposes the generic name *Argus* Bohadsch, 1761 (Class Gastropoda). This decision, in turn, meant that the name *Argus* Scopoli, 1763, was no longer an invalid junior homonym. Accordingly, unless action to the contrary is taken by the International Commission, the name *Argus* Scopoli becomes an available name, and by reason of its early date inevitably becomes the oldest available name for a genus of Lepidoptera.

4. The type species of *Argus* Scopoli, 1763 (by selection by Hemming, 1933, *Entomologist* 66 : 224) is *Papilio coridon* Poda, 1761 (*Ins. Mus. graec.* : 77). This well-known Palearctic species and its congeners are now referred to the genus *Lysandra* Hemming, 1933 (*Entomologist* 66 : 277), except by those entomologists who prefer to regard these species, notwithstanding their structural differences, as congeneric with *Papilio icarus* Rottemburg, 1775 (*Naturforscher* 6 : 21), the type species of the well-known genus *Polyommatus* Latreille, 1804 (*Nouv. Dict. Hist. nat.* 24 (Tab.) : 185, 200). This latter genus was originally based upon a misidentified type species (being referred to by Latreille under the specific name *argus* Fabricius, i.e. *argus* Linnaeus, 1758 (*Papilio*)), but this irregularity was put right by the International Commission under its Plenary Powers in *Opinion* 175 (1946, *Ops. Decls. int. Comm. zool. Nomencl.* 2 (45) : 509—520). In 1948 the name *Polyommatus* Latreille, 1804, which is a household word to all workers in the group concerned, was placed on the *Official List of Generic Names in Zoology* with the above species as type species (see *Opinion* 270, published in 1954, *Ops. Decls. int. Comm. zool. Nomencl.* 6 : 25—40).

5. It will be seen from the foregoing particulars that, as matters now stand, the name *Argus* Scopoli, 1763, replaces, as an accidental by-product of the decision to suppress the names in Bohadsch, 1761, according to the taxonomic views held by the specialists concerned, either (1) the name *Lysandra* Hemming, 1933, or (2) the name *Polyommatus* Latreille, 1804. Either of these results would give rise to serious confusion, for the name *Argus* Scopoli, 1763, has never been used except by its author, when first publishing it 191 years ago, while even the later and invalid homonym *Argus* Boisduval, [1832] (*Icon. hist. Lépidopt. Europe* 1(5/6) : 49), which was originally applied in a loose way (i.e. without a designated type species) to a large group of allied species, has not, so far as we are aware, been used for well over 100 years.

6. In similar and more recent cases, e.g. the names in Geoffroy's *Histoire abrégée* (see *Opinion* 228, published in 1954, *Ops. Decls. int. Comm. zool. Nomencl.* 4 : 209—220) of 1762, the International Commission has recognised that the rejection, *en bloc*, of the names in a given book, though in general desirable, may give rise to undesirable consequences in individual cases and has accordingly signified its willingness to give sympathetic consideration to any applications which may be submitted by specialists for the validation of a given name in such a book. In the present instance we are concerned not with the possible validation of an objectively invalid name but with the much narrower problem of the grant of a partial exception in the case of a name included in a book suppressed under the Plenary Powers. The question of principle involved in these two types of case is, however, exactly the same, and it is submitted that this should be recognised in the present instance, for it is certain that, if, instead of suppressing *en bloc* the names in Bohadsch, 1761, the names in that book had been dealt with individually (a procedure towards which it appears from recently submitted proposals the general sentiment of zoologists is leaning), strong opposition would have been offered by lepidopterists to the suppression of the name *Argus* Bohadsch, 1761, so far as concerns its status under the Law of Homonymy. The International Commission is accordingly now asked to restrict its previous decision in such a way as to prevent the confusion in the nomenclature of the Lepidoptera which would follow the rejection of the name *Argus* Bohadsch, 1761, for the purposes of the Law of Homonymy and the consequent sudden emergence of the name *Argus* Scopoli, 1763, as an available name.

7. The specific proposals now submitted to the International Commission on Zoological Nomenclature are that it should :—

- (1) direct that the suppression of new names in the work of J. B. Bohadsch published in 1761 under the title *De Quibusdam*

Animalibus marinis . . . Liber effected under its *Opinion* 185 is not to be taken as involving the suppression of the name *Argus* Bohadsch, 1761, for the purposes of the Law of Homonymy ;

- (2) place the name *Argus* Bohadsch, 1761, suppressed under *Opinion* 185 for the purposes of the Law of Priority but, under the direction given in (1) above, not for those of the Law of Homonymy, on the *Official Index of Rejected and Invalid Generic Names in Zoology* ;
- (3) place on the *Official List of Generic Names in Zoology* the name *Lysandra* Hemming, 1933 (type species, by original designation : *Papilio coridon* Poda, 1761), with a note that it is so placed for use by workers who consider that the type species of the genus so named is generically distinct from *Papilio icarus* Rottemburg, 1775, the type species of *Polyommatus* Latreille, 1804 (a name already placed on the *Official List of Generic Names*) ;
- (4) place the specific name *coridon* Poda, 1761, as published in the combination *Papilio coridon* (specific name of type species of *Lysandra* Hemming, 1933) on the *Official List of Specific Names in Zoology* ;
- (5) place the emendation *corydon* of the name *coridon* Poda, referred to in (4) above (being an Invalid Emendation not now in current use), on the *Official Index of Rejected and Invalid Specific Names in Zoology*.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of the application submitted by Mr. Francis Hemming and Mr. Cyril dos Passos the question of the generic name

Argus Bohadsch, 1761, was allotted the Registered Number Z.N.(S.) 714.

3. Publication of the present application : The present application was sent to the printer on 22nd November 1952 and was published on 22nd October 1954 in Part 9 of Volume 9 of the *Bulletin of Zoological Nomenclature* (Hemming & dos Passos, 1954, *Bull. zool. Nomencl.* **9** : 281—283).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 22nd October 1954 (a) in Part 9 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which the application by Mr. Hemming and Mr. dos Passos was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to a number of entomological serials in Europe and America.

5. Comments received : Support for the present application was received from two specialists and the communications so received are reproduced in paragraphs 6 and 7 below.

6. Support received from Mr. N. D. Riley (British Museum (Natural History), London) : On 7th November 1952 Mr. Norman D. Riley (*British Museum (Natural History), London*) addressed the following letter to the Commission in support of the present application (Riley, 1954, *Bull. zool. Nomencl.* **9** : 283) :—

I should like warmly to support the application that you are making to the Commission in relation to the generic name *Argus* Bohadsch, 1761. Although there might be sentimental reasons for trying to keep

such a generic name in the LYCAENIDAE, one of the features of which is their eye-spots, yet to do so at this late stage by allowing *Argus* Scopoli, 1763, to be resurrected after an interment on nearly two hundred years would be to cause far greater confusion in this popular group of insects than can be contemplated with equanimity. Though perhaps the suppression of *Lysandra*, a comparatively recently introduced name, might not cause much confusion, the loss of the old and well-known name *Polyommatus* Latreille would certainly be serious.

7. Support received from Dr. Joshua L. Baily, Jr. (San Diego, California, U.S.A.): On 27th November 1954 Dr. Joshua L. Baily, Jr. (*San Diego, California, U.S.A.*) addressed the following statement to the Commission regarding the present case :—

On the name “ Argus ” Scopoli, 1763

In this application the suppression of the generic name *Argus* Scopoli, 1763, is sought. This name applies to a group of butterflies. The present writer knows nothing whatever about butterflies, and would have hesitated before venturing an opinion on the present application were it not that he believes four quite distinct problems to be involved, in such a way that the solution of any one may constitute a precedent for the remaining three, unless care be exercised by the Commission that any decision rendered is so semantically expressed that it cannot be interpreted by later authorities to cover matters that the Commission did not have in mind at the time.

2. The name is nearly two hundred years old, but has never been used because it was a homonym of an earlier name. It has recently been brought to life by the suppression of the earlier name, and thus has become the legal name of a genus long known by a more familiar term.

3. When, as in this case, a familiar name has to be replaced by an unfamiliar one, confusion is always likely to result. But it is quite impossible to legislate against such occurrences. Any rule intended to serve as a statute of limitations is likely to prove unworkable unless it is modified every time it is invoked. For this reason the Commission has been given power to suspend the rules in cases where such a course seems desirable. The present instance seems such a case.

4. But there are other phases to the matter. There is some uncertainty as to how many names are involved. *Lysandra* Hemming, 1933, is an identical synonym of *Argus* Scopoli, 1763, and would fall in any case if the latter name were validated. Some students of this group consider *Lysandra* and *Polyommatus* Latreille, 1804, to be

equivalent, but not identical, synonyms. If this be the case, both these well-known names will fail. A third possibility is that *Lysandra* and *Polyommatus* are subgenera of the same genus. In this case *Argus* would replace *Lysandra* as a subgenus and *Polyommatus* as a genus, but *Polyommatus* would become a subgenus under *Argus*. Thus the validation of *Argus* would not only cause the disappearance of *Lysandra* but would make it necessary to degrade *Polyommatus* and so restrict its application. The effect of validating *Argus* therefore cannot be foreseen in its entirety. It is objectionable to validate a name when the effect of the validation cannot be foreseen at the time, because such an act possibly may accomplish no permanent result except to increase the synonymies with which later writers may have to deal. This is another reason why *Argus* should be suppressed. Another reason for the suppression of *Argus* is that *Polyommatus* has already been placed on the *Official List of Generic Names*. At the time this was done *Argus* was not considered, because it was thought to have been rejected permanently as a homonym. The Commission now has the right to reopen the case, and to replace *Polyommatus* by *Argus*. In the opinion of the writer this step although quite legal would be extremely injudicious, as it would weaken the *Official List* to remove from it a name whose position in it had been established by long duration. The suppression of *Argus* would preserve *Polyommatus* with its customary meaning.

8. No objection received : No objection to the action proposed was received from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

9. Issue of Voting Paper V.P.(55)5 : On 27th May 1955 a Voting Paper (V.P.(55)5) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the name *Argus* Bohadsch, 1781, as

set out in points (1) to (5) in paragraph 7 on page 283 of Volume 9 of the *Bulletin of Zoological Nomenclature*” [i.e. in the points numbered as above in paragraph 7 of the application reproduced in the first paragraph of the present *Opinion*].

10. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 27th August 1955.

11. Particulars of the Voting on Voting Paper V.P.(55)5 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)5 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-five (25) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Stoll ; Vokes ; Hering ;
Esaki ; do Amaral ; Mayr ; Kühnelt ; Dymond ;
Tortonese ; Hankó ; Bradley (J.C.) ; Lemche ; Cabrera ;
Prantl ; Jaczewski ; Riley ; Key ; Bonnet ; Hemming ;
Mertens ; Sylvester-Bradley ; Miller ; Boschma ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned :*

None.

12. Declaration of Result of Vote : On 17th October 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55)5, signed a Certificate that the Votes cast were as set out in paragraph 11 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

13. Addition of two further junior homonyms to the “ Official Index of Rejected and Invalid Generic Names in Zoology ” : On 14th May 1956 Mr. Hemming, as Secretary, executed the following Minute containing a direction that the under-mentioned junior homonyms of the name *Argus* Bohadsch, 1761, the name which formed the subject of the application submitted in the present case, be placed upon the *Official Index of Rejected and Invalid Generic Names in Zoology* : (a) *Argus* Scopoli, 1763 ; (b) *Argus* Boisduval, 1832 :—

Addition to the “ Official Index of Rejected and Invalid Generic Names in Zoology ” of two further junior homonyms of “ Argus ” Bohadsch, 1761 (Class Gastropoda)

MINUTE by FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

(1) My attention has been drawn to the fact that in the application relating to the generic name *Argus* Bohadsch, 1761, which formed the subject of the vote by the International Commission on Voting Paper V.P.(55)5, reference was made to other junior homonyms of *Argus* Bohadsch, 1761, which, however, through some oversight were not cited in the summary given in paragraph 7 of the foregoing application. The names concerned were : (i) *Argus* Scopoli, 1763 ; (ii) *Argus* Boisduval, [1832]. These, being objectively invalid names, should, under the General Directives issued to the Commission by the International Congress of Zoology, be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*. Accordingly, as Secretary, I hereby direct that the foregoing generic names be entered on the said *Official Index* in the Ruling to be prepared to give effect

to the decision taken by the International Commission in its vote on the Voting Paper referred to above.

(2) Further, it must be recalled that at the time of the submission of the foregoing application it had not been found possible to determine by whom, when and where the invalid emendation to *corydon* of the specific name *coridon* Poda, 1761 (*Papilio*) had been first published and that it was accordingly arranged that this matter should be left over for further investigation. The applicants now report that as the result of a survey of the early literature it has been ascertained that the above emendation was first published in the combination *Papilio corydon* by [Denis & Schiffermüller] in 1775 (*Ankündigung syst. Werkes Schmett. Wien. Gegend* : 184).

14. Preparation of the Ruling given in the present "Opinion" :
On 15th May 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)5, subject to the clarification specified in the Minute executed by the Secretary on 14th May 1956, the terms of which have been reproduced in paragraph 13 of the present *Opinion*.

15. Original References : The following are the original references for the names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Argus Bohadsch (J.B.), 1761, *De Quibusd. Anim. mar. . . . Liber* : 56

Argus Scopoli, 1763, *Ent. carniol.* : 176

Argus Boisduval, [1832], *Icon. hist. Lépidopt. Europe.* **1**(5/6) : 49

coridon, *Papilio*, Poda, 1761, *Ins. Mus. graec.* : 77

corydon, *Papilio* [Denis & Schiffermüller], 1775, *Ankündigung. Syst. Werkes Schmett. Wien. Gegend* : 184

Lysandra Hemming, 1933, *Entomologist* **66** : 277

16. Family-Group-Name Aspects : Mr. Hemming has informed the Office of the Commission that none of the generic names involved in the present case has been taken as the base for the name of a family-group taxon.

17. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

18. The present *Opinion* shall be known as *Opinion* Four Hundred and Twenty-Nine (429) of the International Commission on Zoological Nomenclature.

DONE in London, this Fifteenth day of May, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 14. Pp. 339—346

OPINION 430

Use of the Plenary Powers for the purpose of making the specific name *minimus* Miller (J.S.), 1826, as published in the combination *Belemnites minimus*, the oldest available name for the species concerned (Class Cephalopoda, Order Dibranchia)

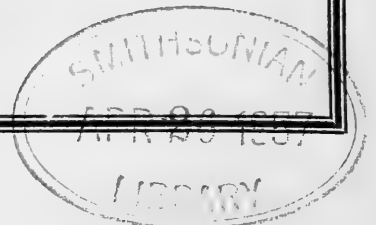
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 430

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N. Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

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(*Arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology*)

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(1st January 1947)

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Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria," Genova, Italy*)
(16th December 1954)

OPINION 430

USE OF THE PLENARY POWERS FOR THE PURPOSE
OF MAKING THE SPECIFIC NAME "MINIMUS"
MILLER (J.S.), 1826, AS PUBLISHED IN THE
COMBINATION "BELEMNITES MINIMUS"
THE OLDEST AVAILABLE NAME FOR THE
SPECIES CONCERNED (CLASS CEPHALOPODA,
ORDER DIBRANCHIA)

RULING :—(1) Under the Plenary Powers the specific name *listeri* Mantell, 1822, as published in the combination *Belemnites listeri* is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Number 359 : *listeri* Mantell (G.A.), 1822, as published in the combination *Belemnites listeri*, as suppressed under the Plenary Powers under (1) above.

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name Number 1043 : *minimus* Miller (J.S.), 1826, as published in the combination *Belemnites minimus* (Class Cephalopoda, Order Dibranchia).

I. THE STATEMENT OF THE CASE

On 1st March 1954 Professor H. H. Swinnerton (*Nottingham, England*) submitted to the International Commission on Zoological Nomenclature the following request for the suppression under the Plenary Powers of the specific name *listeri* Mantell, 1822, as

published in the combination *Belemnites listeri* (Class Cephalopoda, Order Dibranchia) for the purpose of securing that the specific name *minimus* Miller (J.S.), 1826, as published in the combination *Belemnites minimus*, shall be the oldest available specific name for the taxon concerned :—

Proposed use of the Plenary Powers for the purpose of validating the specific name “*minimus*” Miller (J.S.), 1826, as published in the combination “*Belemnites minimus*” (Class Cephalopoda, Order Dibranchia)

By H. H. SWINNERTON, D.Sc.

(Nottingham, England)

The name *Belemnites minimus*, or more recently *Neohibolites minimus*, is in general current use for a belemnite of widespread and common occurrence in the Gault and Red Chalk (Cretaceous, Albian) of England and Northwest Europe. The name is also used eponymously in stratigraphical geology, e.g. the *minimus* Marls of Speeton, Yorkshire; the “argiles à *minimus*” of France; the “*minimus* Thon” of Northwest Germany. The species is further one of the standard fossils used in teaching palaeontology to students.

2. The name *Belemnites minimus* is commonly attributed to Martin Lister, but his usage (1678 : *Historia animalium Angliae* : 227, pl. xxvii, fig. 32) was pre-Linnean and polynominal. He was describing a species from the Red Chalk of Lincolnshire which is the same as that for which the name is now used.

3. The first available name given to this species is *Belemnites listeri* G. A. Mantell (1822 : *The Fossils of the South Downs ; or Illustrations of the Geology of Sussex* : 88, pl. xix, figs. 17, 18, 23). The combination *Belemnites minimus* was first used binominally four years later by J. S. Miller (1826, *Trans. geol. Soc. Lond.* (2) 2 : 62, pl. ix, fig. 6), who cited *B. listeri* Mantell in his synonymy. *B. minimus* Miller and *B. listeri* Mantell are thus synonymous names for one species and they are so accepted by specialists.

4. Although there has recently been an increasing tendency for *B. listeri* Mantell to be adopted, the name *B. minimus* has been used in 48 out of 57 post-Linnean references to the species quoted by von Bülow-Trummer (1920 : *Fossilium Catalogus* I, part 11 : 159). It is

quoted as *B. listeri* in six of these references and in two as *B. attenuatus* Sowerby (J. de C.). A well-known work of reference on dibranchiate cephalopods also uses the specific name *minimus* (Naef (A.), 1926, *Die Fossilen Tintenfische*, Jena : 255).

5. In view of this evidence for the preponderant usage of the specific name *minimus*, it is held desirable that this name (as published in the combination *Belemnites minimus* by Miller (J.S.), 1826) should be stabilised as the name to be used for this common fossil species. It is therefore requested that the International Commission on Zoological Nomenclature should :—

- (1) use its Plenary Powers for the purpose of suppressing the specific name *listeri* Mantell, 1822, as published in the combination *Belemnites listeri*, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (2) place the specific name *listeri* Mantell, 1822, as published in the combination *Belemnites listeri* and as proposed, in (1) above, to be suppressed under the Plenary Powers, on the *Official Index of Rejected and Invalid Specific Names in Zoology* ;
- (3) place the specific name *minimus* Miller (J.S.), 1826, as published in the combination *Belemnites minimus*, on the *Official List of Specific Names in Zoology*.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon receipt of Professor Swinnerton's application the question whether the specific name *minimus* Miller, 1826, as published in the combination *Belemnites minimus*, should be validated in such a way as to become the oldest available specific name for the taxon concerned was allotted the Registered Number Z.N.(S.) 823.

3. Publication of the present application : The present application was sent to the printer on 13th April 1954 and published on 22nd October of the same year in Part 9 of Volume 9 of the *Bulletin of Zoological Nomenclature* (Swinnerton, 1954, *Bull. zool. Nomencl.* 9 : 284—285).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 22nd October 1954 (a) in Part 9 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Professor Swinnerton's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to a number of palaeontological serials in Europe and America.

5. Support received : On 30th November 1954, Mr. C. W. Wright (*London*) addressed to the Commission the following letter in support of the present application (Wright, 1954, *Bull. zool. Nomencl.* **9** : 350) :—

From the points of view both of palaeontology and of Cretaceous stratigraphy I should like to give strong support to Professor Swinnerton's application for the use of the Plenary Powers to validate the specific name *minimus*, as published in the combination *Belemnites minimus*.

6. No objection received : The publication of the present application elicited no objection from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

7. Issue of Voting Paper V.P.(55)6 : On 27th May 1955, a Voting Paper (V.P.(55)6) was issued in which the Members of the Commission were invited to vote either for, or against "the proposal relating to the specific name *minimus* Miller (J.S.), 1826, as published in the combination *Belemnites minimus*, as set out in Points (1) to (3) in paragraph 5 at the foot of page 284 and continued on page 285 of Volume 9 of the *Bulletin of Zoological Nomenclature*" [i.e. in paragraph 5 of the application reproduced in the first paragraph of the present *Opinion*].

8. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 27th August 1955.

9. Particulars of the Voting on Voting Paper V.P.(55)6 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)6 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-five (25) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Stoll ; Vokes ; Hering ;
Esaki ; do Amaral ; Mayr ; Kühnelt ; Dymond ;
Tortonese ; Hankó ; Bradley (J.C.) ; Lemche ; Cabrera ;
Prantl ; Riley ; Key ; Bonnet ; Jaczewski ; Hemming ;
Mertens ; Sylvester-Bradley ; Miller ; Boschma ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned :*

None.

10. Declaration of Result of Vote : On 17th October 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P. (55)6, signed a Certificate that the Votes cast were as set out in paragraph 9 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

11. Preparation of the Ruling given in the present “ Opinion ” : On 16th May 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate

that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)6.

12. Original References : The following are the original references for the names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

listeri, *Belemnites*, Mantell (G.A.), 1822, *Foss. South Downs* : 88, pl. xix, figs. 17, 18, 23

minimus, *Belemnites*, Miller (J.S.), 1826, *Trans. geol. Soc. Lond.* (2) 2 : 62, pl. ix, fig. 6

13. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

14. The present *Opinion* shall be known as *Opinion* Four Hundred and Thirty (430) of the International Commission on Zoological Nomenclature.

DONE in London, this Sixteenth day of May Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

**OPINIONS AND DECLARATIONS
RENDERED BY THE INTER-
NATIONAL COMMISSION ON
ZOOLOGICAL NOMENCLATURE**

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

VOLUME 14. Part 15. Pp. 347—372

OPINION 431

Use of the Plenary Powers to secure that the generic name
Helicella Férussac, 1821 (Class Gastropoda) shall be
available for use in its accustomed sense

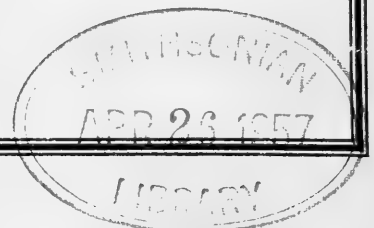
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Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

OPINION 431

USE OF THE PLENARY POWERS TO SECURE THAT THE GENERIC NAME "HELICELLA" FERUSSAC, 1821 (CLASS GASTROPODA) SHALL BE AVAILABLE FOR USE IN ITS ACCUSTOMED SENSE

RULING :—(1) The following action is hereby taken under the Plenary Powers :—

- (a) The generic name *Jacosta* Gray (J.E.), 1821, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.
- (b) All selections of type species for the genus *Helicella* Férussac, 1821 (Class Gastropoda) made prior to the present Ruling are hereby set aside and the nominal species *Helix itala* Linnaeus, 1758, is hereby designated to be the type species of the foregoing genus.

(2) It is hereby ruled that the gender to be attributed to the generic name *Oxychilus* Fitzinger, 1833, is the masculine gender.

(3) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Helicella* Férussac, 1821 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b) above : *Helix itala* Linnaeus, 1758) (Name No. 1024) ;

- (b) *Monacha* Fitzinger, 1833 (gender : feminine) (type species, by selection by Gray (J.E.) (1847) : *Helix cartusiana* Müller (O.F.), 1774) (Name No. 1025) ;
- (c) *Oxychilus* Fitzinger, 1833 (gender : masculine) (type species, by selection by Herrmannsen (1847) : *Helix cellaria* Müller (O.F.), 1774) (Name No. 1026) ;
- (d) *Theba* Risso, 1826 (gender : feminine) (type species, by selection by Gray (J.E.) (1847) : *Helix pisana* Müller (O.F.), 1774) (Name No. 1027).

(4) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below :—

- (a) *cartusiana* Müller (O.F.), 1774, as published in the combination *Helix cartusiana* (specific name of type species of *Monacha* Fitzinger, 1833) (Name No. 1044) ;
- (b) *cellaria* Müller (O.F.), 1774, as published in the combination *Helix cellaria* (specific name of type species of *Oxychilus* Fitzinger, 1833) (Name No. 1045) ;
- (c) *itala* Linnaeus, 1758, as published in the combination *Helix itala* (specific name of type species of *Helicella* Férussac, 1821) (Name No. 1046) ;
- (d) *pisana* Müller (O.F.), 1774, as published in the combination *Helix pisana* (specific name of type species of *Theba* Risso, 1826) (Name No. 1047).

(5) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Jacosta* Gray (J.E.), 1821, as suppressed under the Plenary Powers under (1)(a) above (Name No. 735);
- (b) *Planatella* Clessin, 1876 (a junior objective synonym of *Helicella* Férussac, 1821, as defined under the Plenary Powers under (1)(b) above) (Name No. 736);
- (c) *Xerophila* Held, 1837 (a junior objective synonym of *Theba* Risso, 1826) (Name No. 737);
- (d) *Euparypha* Hartmann, 1844 (a junior objective synonym of *Theba* Risso, 1826, the nominal species which are the respective type species of the foregoing genera being based upon the same type specimen) (Name No. 738);
- (e) *Helicella* Lamarck, 1812 (a cheironym cited by Chenu (1859)) (Name No. 739).

(6) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Number 360:—*rhodostoma* Draparnaud, [1801], as published in the combination *Helix rhodostoma* (a junior objective synonym of *pisana* Müller, 1774, as published in the combination *Helix pisana*).

(7) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Number 91:—HELICELLINAE Hesse, 1926 (type genus: *Helicella* Férussac, 1821).

(8) The under-mentioned family-group name is hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Number 76:—HELICELLINAE Chenu, 1859 (a *nomen nudum*, because its type genus *Helicella* Lamarck, 1812, is a cheironym).

I. THE STATEMENT OF THE CASE

On 18th March 1946, Dr. Lothar Forcart (*Custos, Zoological Department, Naturhistorisches Museum, Basle, Switzerland*) submitted a preliminary application to the International Commission on Zoological Nomenclature designed to provide a firm foundation for the use of the generic name *Helicella* Férussac, 1821 (Class Gastropoda). This application was unfortunately one of those with which it had not been practicable for the Office of the Commission to make any progress before the Thirteenth International Congress of Zoology, Paris, 1948. Certain procedural decisions taken by that Congress, notably in connection with the establishment of *Official Lists* and *Official Indexes* necessarily involved some revision in all applications outstanding at that time. In the present case the required revision was completed by Dr. Forcart on 13th September 1950, on which date he submitted the following application for the consideration of the International Commission :—

**Proposed validation, under the Plenary Powers, of the generic name
“ *Helicella* ” Férussac, 1821 (Class Gastropoda)**

By LOTHAR FORCART

(*Custos, Zoological Department, Naturhistorisches Museum, Basel, Switzerland*)

I hereby make application to the International Commission on Zoological Nomenclature for a Ruling on the following question :—

Are the “ Explications ” for plates 1 to 47 of Férussac’s *Histoire naturelle et particulière des Mollusques terrestres et fluviatiles*, which were published on 6th April 1821 with *Livraison 9* of the foregoing work, to be taken into account for nomenclatorial purposes under the provisions of the *Règles* ?

2. If the answer to the foregoing question is in the affirmative, I desire to ask that the Commission should use its Plenary Powers to suppress these “ Explications ” for nomenclatorial purposes, in view both of the confusion and disturbance in nomenclature which their acceptance would involve and also of the extreme rarity of these “ Explications ” which consequently makes them inaccessible for study by the great majority of workers.

3. The facts in regard to this matter are as follows : A. S. Kennard (1942 : 12—17, 105—118) published particulars of the exact dates of publication of the *Livraisons* in which were published the successive instalments of Férussac's *Histoire naturelle et particulière des Mollusques terrestres et fluviatiles*, together with that author's *Tableaux systématiques des Animaux Mollusques*. In the paper referred to above Kennard showed that *Livraison* 9 was published on 6th April 1821 and contained (1) the "Explications" to plates 1 to 47 of the *Histoire naturelle*, and (2) pages 1 to 32 of the "Tableau systématique de la Famille des Limaçons, Cochlea" (edition containing six pages of "Avertissement", which forms a part of Férussac's *Tableaux systématique des Animaux Mollusques*).

4. The "Explications" to plates 1 to 47 issued with *Livraison* 9 do not form an integral part either of the *Histoire naturelle* or of the *Tableaux systématiques des Animaux Mollusques*. They were no more than a provisional explanation of the plates in question, distributed only to those persons who were subscribers to Férussac's work as it appeared in parts. They were not included in the copies of the completed work sold after the last part had been issued. In these circumstances, it is not surprising that copies of these "Explications" are extremely scarce. Indeed, so far as I am aware, there are only two such copies now extant. One of these is in the library of the United States National Museum in Washington ; the other is in the possession of A. S. Kennard at Beckenham (Kent, England).

5. Prior to the publication in 1941 of Kennard's paper, no reference had ever been made in the literature to these "Explications", the existence of which was therefore quite unknown.

6. The acceptance, for nomenclatorial purposes, of the "Explications" to plates 1—47, if that were permitted, would involve confusing changes in zoological nomenclature, consequent upon the alteration which would be involved in the type species of the genus *Helicella* Férussac, 1821 (Class Gastropoda, Order Stylommatophora) which would thereby be involved. The position in this matter is as shown in the following paragraphs.

7. The generic name *Helicella* was published by Férussac on page 28 of the *Tableau syst. des Limaçons* with a diagnosis but without any included species cited by name. This page, as explained above appeared in *Livraison* 9. In the "Explications" to plates 1—47, published in the same *Livraison*, Férussac employed the generic name *Helicella* for two species, namely (1) "*Helicella (Heliomanes) subdentata* Nobis" (pl. 27, figs. 1 & 2) and "*Helicella (Heliomanes) planata* Chemnitz" (pl. 30, fig. 2).

8. The first author to select a type species for the genus *Helicella* Férussac, 1821, was A. N. Herrmannsen who in 1847 (1 : 507) so

selected *Helix ericetorum* Müller, 1774. This species was included by Férussac in the genus *Helicella* on page 48 of the *Tableau syst. des Limaçons* (species no. 281), which is now known to have been published in *Livraison* 10 on 26th May 1821; as already explained no species had been cited for this genus in the portion of the text which was included in *Livraison* 9, where this generic name first appeared. Under the provisions of *Opinion* 46 (since clarified by the Thirteenth International Congress of Zoology at Paris in 1948, as shown in *Bull. zool. Nomencl.* 4 : 159—160, 346), Herrmannsen was perfectly entitled to select *Helix ericetorum* as the type species of the genus *Helicella* Férussac, that genus having been established without any cited included species, provided that it is granted that the passage relied upon by Herrmannsen is the first place where the name *Helicella* was validly published, i.e. provided that it is permissible to ignore the “Explications” to plates 1—47.

9. On the other hand, Kennard (1941 : 265), who treated the “Explications” as the first place where the generic name *Helicella* Férussac was published, considered that the only species eligible for selection as the type species of this genus were the two species there cited under this generic name (in explanation respectively of plates 27 and 30). From these species he selected *Helicella subdentata* Férussac, 1821, as the type species of this genus.

10. The species *Helicella subdentata* Férussac is currently treated by specialists as belonging to the genus *Theba* Risso, 1826 (type species : *Helix pisana* Müller, 1774). Kennard's selection of this species as the type species of *Helicella* Férussac is perfectly valid, if it is granted that the “Explications” are available for nomenclatorial purposes. On the other hand, the acceptance of Kennard's action would lead to a most confusing transfer of the generic name *Helicella* Férussac, for instead of comprising as at present *Helix ericetorum* Müller and its allies, it would in future comprise *Helix pisana* Müller; the generic name *Theba* Risso would thus become a junior synonym of *Helicella* Férussac, while the generic name *Planatella* Clessin, 1876 (type species : *Helix ericetorum* Müller, 1774) would need to be brought into use for the genus now universally known by the name *Helicella* Férussac.

11. I accordingly ask the International Commission to use its Plenary Powers to prevent this unnecessary confusion from arising. The desired object could be obtained by the employment of those Powers either (1) to suppress the “Explications” for nomenclatorial purposes or (2) while leaving the “Explications” available, to designate *Helix ericetorum* Müller, 1774 (or, preferably, its senior subjective synonym, *Helix itala* Linnaeus, 1758), as the type species of *Helicella* Férussac, 1821. In either case the result would be the same, since it is only in the case of the generic name *Helicella* that the acceptance of the “Explications” involves a change in current nomenclatorial practice. The International Commission may feel that, as the present application

is concerned only to prevent the confusion which would arise if it were necessary to accept *Helicella subdentata* Férussac as the type species of the genus *Helicella* Férussac, the most convenient course would be to adopt the second of the two alternatives outlined above. In that case, I ask that the International Commission should :—

(1) use its Plenary Powers :—

- (a) to set aside all type selections for the genus *Helicella* Férussac, 1821, made prior to the proposed decision ;
- (b) to designate *Helix itala* Linnaeus, 1758, to be the type species of the foregoing genus ;

(2) place the under-mentioned generic names on the *Official List of Generic Names in Zoology*, with the type species specified below :—

- (a) *Helicella* Férussac, 1821 (gender : feminine) (type species, as designated under Plenary Powers under (1)(b) above : *Helix itala* Linnaeus, 1758) ;
- (b) *Theba* Risso, 1826 (gender : feminine) (type species, designated by Gray 1847 (*Proc. zool. Soc. Lond.* **15** : 173) : *Helix pisana* Müller, 1774) ;

(3) place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :

- (a) *itala* Linnaeus, 1758, as published in the combination *Helix itala* ;
- (b) *pisana* Müller, 1774, as published in the combination *Helix pisana*.

References

- Férussac, 1821—1822, *Tableaux systématiques des Animaux Mollusques classés en familles naturelles*. Paris et Londres
- Férussac, 1820—1851, *Histoire naturelle générale et particulière des Mollusques terrestres et fluviatiles*. Paris
- Herrmannsen, A. N., 1846—1847, *Indicis Generum Malacozoorum Primordia*. Cassellis
- Kennard, A. S., 1941, "List of British non-marine Mollusca", *J. Conch.*, London **21** : 260—274
- Kennard, A. S., 1942, "The *Histoire* and *Prodrome* of Férussac", *Proc. malac. Soc. Lond.* **25** : 12—17, 105—118

2. **Supplementary application regarding the generic name "Helicella" Férussac, 1821 submitted by Mr. A. E. Ellis (Epsom) and Mr. R. Winckworth (London) in 1950** : On 20th March 1950 (i.e. before the final completion of the paper by Dr. Forcart reproduced in paragraph 1 above), Mr. A. E. Ellis (*Epsom College, Epsom, England*) forwarded to the Office of the Commission on behalf of himself and Mr. R. Winckworth (*London*) a proposal regarding the generic name *Helicella* Férussac independent of the application submitted by Dr. Forcart but having in general the same aim. The joint application by Mr. Ellis and Mr. Winckworth was as follows :—

Proposed use of the Plenary Powers to preserve the generic name "Helicella" Férussac, 1821 (Class Gastropoda) for use in its accustomed sense

By A. E. ELLIS

(*Epsom College, Epsom, England*)

and

R. WINCKWORTH

(*London, England*)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers for the purpose of preserving the generic name *Helicella* Férussac, 1821 (Class Gastropoda) for use in its accustomed sense.

2. The following is a summary of the generic names discussed in the present application :—

(1) *Euparypha* Hartmann, 1844, *Erd- u. Süßwasser-Gasteropoden* : 204 (type species, by monotypy : *Helix rhodostoma* Draparnaud, [1801] (= *Helix pisana* Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.* 2 : 60)

(2) *Helicella* Férussac, 1821, *Tableaux systématiques des Animaux Mollusques . . . suivis d'un Prodrome général pour tous les Mollusques terrestres et fluviatiles, vivants ou fossiles* : 28 (Livraison 9) (this work is cited by the author as *Prodrome Limaçons* or as *Prodrome Limaces*) ; *Histoire naturelle, générale et particulière des Mollusques terrestres et fluviatiles*, Explic. Planches 1—47 (type species, by selection by Kennard, 1941 (*J. Conch.* 21 : 265) : *Helicella subdentata* Férussac, 1821). (There is also an alleged invalid selection by Herrmannsen, May 1847

(*Indicis Generum Malacozoorum Primordia* 2 : 507) of *Helix ericetorum* Müller (O.F.), 1774 (*Verm. terrestr. fluviat. Hist.* 2 : 33), a junior subjective synonym of *Helix itala* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 772). In addition, there is a subsequent, also invalid, selection by Gray (J.E.), Nov. 1847 (*Proc. zool. Soc. Lond.* 15 : 174) of *Helix cellaria* Müller (O.F.), 1774 (*Verm. terrestr. fluviat. Hist.* 2 : 28) as the type species of this genus.)

(3) *Jacosta* Gray (J.E.), March 1821, *London Medical Repository* 15 : 239 (type species, by monotypy ; *Helix albella* Draparnaud, [1801], *Tabl. Moll. terrestr. fluviat. France* : 90 (= *Helix explanata* Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.* 2 : 26)).

(4) *Monacha* Fitzinger, 1833, *Beiträge zur Landesk. Oesterreich's unter der Enns* 3 : 95 (type species, by selection by Gray (J.E.), 1847 (*Proc. zool. Soc. Lond.* 15 : 173) : *Helix cartusiana* Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.* 2 : 15).

(5) *Oxychilus* Fitzinger, 1833, *Beiträge zur Landesk. Oesterreich's unter der Enns* 3 : 100 (type species, by selection by Herrmannsen, May 1847 (*Indic. Gen. Malacoz. Primordia* 2 : 183) : *Helix cellaria* Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.* 2 : 28).

(6) *Planatella* Clessin, 1876, *Deutsche Excursions-Mollusken-Fauna* : 143 (type species, by monotypy : *Helix itala* Linnaeus, 1758, *Syst. Nat.* (ed.10) 1 : 772).

(7) *Theba* Risso, 1826, *Histoire naturelle des principales Productions de l'Europe méridionale* 4 : 73 (type species, by selection by Gray (J.E.), 1847 (*Proc. zool. Soc. Lond.* 15 : 173) : *Helix pisana* Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.* 2 : 60).

(8) *Xerophila* Held, 1837, *Isis* (Oken) 30(12) : 913 (type species, by selection by Herrmannsen, 1849 (*Indic. Gen. Malacoz. Primordia* 2 : 712) : *Helix pisana* Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.* 2 : 60). (There is also a later—invalid—selection by Martens, 1860 (*in* Albers, *Die Heliceen*) of *Helix ericetorum* Müller (O.F.), 1774 (= *Helix itala* Linnaeus, 1758) as the type species of this genus).

3. The genus *Helicella* Férussac, 1821, contains a large assemblage of species of snails, chiefly of the families ZONITIDAE and HELICIDAE (Subclass Pulmonata, Order Stylommatophora). For over fifty years the name has been in general use in the literature for the group typified by *Helix itala* Linnaeus, 1758, and we believe this use of the name is acceptable to the majority of workers. It has, however, been used for other groups, and a brief history of the name is given below.

4. Both the *Prodrome* and *Histoire* of Férussac appeared in parts. *Helicella* was published on 6th April 1821 (*Prodrome*, livr. 9) with a diagnosis but with no cited nominal species, and on the same date (*Histoire*, explication des planches) the species *Helicella subdentata*

Férussac and *H. planata* (Chemnitz) are listed with reference to the figures. In the next livraison of the *Prodrome*, published on 26th May 1821, the full list of 164 species assigned to *Helicella* with references appeared. These facts were not known to recent workers until published by Kennard, 1942 (*Proc. malac. Soc. Lond.* **25** : 115). In 1941 Kennard (*J. Conch.* **21** : 265) selected *Helicella subdentata* Férussac as the type species of *Helicella* Férussac, 1821, thus transferring the use of the name to the group of *Helix pisana* Müller, 1774, an entirely new and confusing usage, and introduced (*loc. cit.* : 264) the little-known name *Planatella* Clessin, 1876, for *Helix itala* Linnaeus, 1758. Before this, *Helicella* Férussac had been very widely used for the group of *Helix itala* Linnaeus, of which *Helix ericetorum* Müller is a junior synonym, following Herrmannsen's selection (invalid according to Kennard but defended by some authors) in May 1847 of this species as the type species of *Helicella* Férussac, as restricted by Hartmann, 1842 (*Erd- und Süßwasser-Gasteropoden*, 143), while a very few authors had used *Helicella* for the group of *Helix cellaria* Müller, 1774, following Gray's type selection in November 1847. These two points of view are discussed by Pilsbry, 1922 (*Proc. malac. Soc. Lond.* **15** : 39) and by Kennard and Woodward (*Proc. malac. Soc. Lond.* **15** : 49). The transference of *Helicella* from the group of *H. itala* to that of *H. pisana* is adversely criticised by Watson, 1943 (*J. Conch.* **22** : 60), who emphasises the valid selection of *Helix itala* Linnaeus as the type species of *Helicella* Férussac by Herrmannsen, 1847.

5. If *Helix itala* Linnaeus is accepted as the type species of *Helicella* Férussac, then *Theba* Risso, 1826, and *Oxychilus* Fitzinger, 1833, come into use for the groups of *Helix pisana* Müller and *Helix cellaria* Müller respectively. *Oxychilus* Fitzinger is already in general use for the genus of ZONITIDAE typified by *Helix cellaria* Müller, though *Theba* Risso until recently has been usually applied to the genus of HELICIDAE typified by *Helix cartusiana* Müller, *Euparypha* Hartmann, 1844, being used for the group of *Helix pisana* Müller. For *Helix cartusiana* Müller and its allies the generic name *Monacha* Fitzinger, 1833, originally proposed for *Helix sericea* Müller, *H. incarnata* Müller and *H. carthusianella* Draparnaud (= *H. cartusiana* Müller), is available and has now come into use.

6. The generic name *Xerophila* Held, 1837, has been used for *Helix itala* Linnaeus by some authors, e.g. Taylor, 1921 (*Monograph of the Land and Freshwater Mollusca of the British Isles* **4** : 112) and Kennard and Woodward, 1926 (*Synonymy of the British non-marine Mollusca* : 213), following the selection of *Helix ericetorum* Müller, 1774 (= *H. itala* Linnaeus, 1758) as type species by Martens, 1860, but *Helix pisana* Müller, 1774, had previously been selected as the type species of *Xerophila* Held by Herrmannsen, 1849, so *Xerophila* Held, like *Euparypha* Hartmann, is a junior synonym of *Theba* Risso, 1826.

7. The name *Jacosta* Gray, March 1821, was published as a subgenus for *Helix albella* Draparnaud (*non* Linnaeus) (= *H. explanata* Müller, a species which is at least subgenerically distinct from *Helix itala* Linnaeus, though probably most systematists would consider them congeneric). The name is conjectured to be a typographical error (such as abound in Gray's writings) for *Dacosta*, after the 18th century conchologist, E. M. da Costa. *Jacosta* Gray has one month's seniority over *Helicella* Férussac, so a rigid application of the Law of Priority would necessitate its adoption for this group, with a consequent change in the subfamily name (family of some authors). Such a change, involving the replacement of the widely used and familiar name *Helicella* by the obscure and ill-conceived name *Jacosta*, would introduce undesirable confusion and instability into the nomenclature of the group, and the suppression of *Jacosta* Gray is urged in the best interests of taxonomy.

8. While fully recognising that under the *Règles* Kennard's action in selecting *Helicella subdentata* Férussac as the type species of the genus *Helicella* Férussac was correct, we consider that the confusion and instability which would result from the change in the application of this generic name as a consequence of the acceptance of Kennard's selection is altogether too heavy a price to pay in the service of the Law of Priority.

9. Before summarising the proposals which we desire to submit to the Commission, we must add the following note regarding the gender attributable to the names which we recommend should now be placed on the *Official List of Generic Names in Zoology*. Of the four names concerned, three (*Helicella*; *Monacha*; *Theba*) are indisputably feminine in gender, and it is only the fourth (*Oxychilus*) as regards which any question arises. Fitzinger, when introducing this name, placed four species in this genus, namely:—*O. lucidus* (Draparnaud); *O. cellaria* (Müller); *O. nitidulus* (Draparnaud); *O. ericetorum* (Müller). The last name, being a noun in the genitive plural, has no bearing on the present problem. Of the first three specific names, Fitzinger gave a feminine termination to one and a masculine termination to two. He was therefore inconsistent in his treatment of these names. It is probable, however, that he intended the name *Oxychilus* to be a masculine word and that it was through inadvertence that he omitted to change to *-us* the termination used by Müller for the second of the names concerned (*cellaria*). On etymological grounds the word *Oxychilus*, being a compound word derived from the Greek and having the word meaning lip as its termination, should be a neuter word. In the circumstances we recommend that this generic name should be treated as of the neuter gender. [*Later Note*: Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, a generic name consisting of a compound word derived from the Greek and having the termination “-cheilus” (or “-chilus”) is to be

treated as being a neuter word (1953, *Copenhagen Decisions zool. Nomencl.* : 51, Decision 84(7)(c)(i)). Thus, the recommendation submitted in the case of the name *Oxychilus* is seen to be in accord with the latest revision of the *Règles*.]

10. The genus *Helicella* Férussac was made the type genus of a subfamily HELICELLINAE by Schlesch in 1927 (*KorrespBl. Naturf.-Ver. Riga* 59 : 116). There is an older name HELICELLINAE Chenu, 1859 (*Manuel Conchyliol.* 1 : 421), but this must be regarded as being invalid, since Chenu based it upon the non-existent generic name “*Helicella* Lamarck, 1812”. Lamarck never published such a name, for he used only the vernacular word “*Helicelle*” (Lamarck, 1812, *Extrait Cours Zool. Anim. sans Vertèbr.* : 115).

11. In the light of the considerations advanced in the present application we now ask the International Commission on Zoological Nomenclature :—

(1) to use its Plenary Powers :—

- (a) to suppress the generic name *Jacosta* Gray (J.E.), 1821, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (b) to set aside all type selections for the genus *Helicella* Férussac, 1821, made prior to the Ruling now asked for, and to designate *Helix itala* Linnaeus, 1758, to be the type species of the foregoing genus ;

(2) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—

- (a) *Helicella* Férussac, 1821 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b) above : *Helix itala* Linnaeus, 1758) ;
- (b) *Monacha* Fitzinger, 1833 (gender : feminine) (type species by selection by Gray (J.E.) (1847) : *Helix cartusiana* Müller (O.F.), 1774) ;
- (c) *Oxychilus* Fitzinger, 1833 (gender : neuter) (type species by selection by Herrmannsen (1847) : *Helix cellaria* Müller (O.F.), 1774) ;
- (d) *Theba* Risso, 1826 (gender : feminine) (type species by selection by Gray (J.E.), [1847] : *Helix pisana* Müller (O.F.), 1774) ;

- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
- (a) *cartusiana* Müller (O.F.), 1774, as published in the combination *Helix cartusiana* (specific name of type species of *Monacha* Fitzinger, 1833) ;
 - (b) *cellaria* Müller (O.F.), 1774, as published in the combination *Helix cellaria* (specific name of type species of *Oxychilus* Fitzinger, 1833) ;
 - (c) *itala* Linnaeus, 1758, as published in the combination *Helix itala* (specific name of type species of *Helicella* Férussac, 1821) ;
 - (d) *pisana* Müller (O.F.), 1774, as published in the combination *Helix pisana* (specific name of type species of *Theba* Risso, 1826) ;
- (4) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
- (a) *Jacosta* Gray (J.E.), 1821 (as suppressed under the Plenary Powers under (1) (a) above) ;
 - (b) *Planatella* Clessin, 1876 (a junior objective synonym of *Helicella* Férussac, 1821, as defined by the type designation under the Plenary Powers under (1) (b) above) ;
 - (c) *Xerophila* Held, 1837 (a junior objective synonym of *Theba* Risso, 1826) ;
 - (d) *Helicella* Lamarck, 1812 (a cheironym cited by Chenu, 1859) ;
- (5) to place the under-mentioned name on the *Official List of Family-Group Names in Zoology* : HELICELLINAE Schlesch, 1927 (type genus : *Helicella* Férussac, 1821) ;
- (6) to place the under-mentioned name on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :— HELICELLINAE Chenu, 1859 (a *nomen nudum* because its alleged type genus, *Helicella* Lamarck, 1812, a cheironym).

II. THE SUBSEQUENT HISTORY OF THE CASE

3. Registration of the present application : Upon the receipt of Dr. Forcart's preliminary application in 1946 the question of the

action required to provide a firm foundation for the use of the generic name *Helicella* Férussac, 1821, was allotted the Registered Number Z.N.(S.) 214.

4. Publication of the present application : Dr. Forcart's application, together with the joint application submitted by Mr. Ellis and Mr. Winckworth, was sent to the printer on 13th October 1954 and both applications were published on 30th December in the same year in Part 9 of Volume 9 of the *Bulletin of Zoological Nomenclature* (Forcart, 1954, *Bull. zool. Nomencl.* **9** : 301—303 ; Ellis and Winckworth, *ibid.* **9** : 304—308).

5. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 30th December 1954 (a) in Part 9 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the part in which Dr. Forcart's application and the joint application by Mr. Ellis and Mr. Winckworth were published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications.

6. Support received : Support for the present applications was received from the following specialists :—(1) Horace B. Baker (*Zoological Laboratory, University of Pennsylvania, Philadelphia, U.S.A.*) ; (2) C. R. Boettger (*Zoologisches Institut der Technischen Hochschule Braunschweig, Braunschweig, Germany*) ; (3) Hugh Watson (*Cambridge, England*). The communications so received are reproduced in the immediately following paragraphs.

7. Support received from Professor Horace B. Baker (Zoological Laboratory, University of Pennsylvania, Philadelphia, U.S.A.) : On 16th February 1955, Professor Horace B. Baker (*Zoological Laboratory, University of Pennsylvania, Philadelphia, U.S.A.*) addressed the following letter to the Office of the Commission

in support of the present applications (Baker, 1955, *Bull. zool. Nomencl.* **11** : 231) :—

The proposed use of the Plenary Powers to preserve the generic name *Helicella* Férussac, 1821 (Class Gastropoda) for use in its accustomed sense, as discussed by A. E. Ellis and R. Winckworth in *Bull. zool. Nomencl.* **9**(10) : 304 *et seq.* is backed very heartily by me. Their presentation of the case is excellent. Dr. Forcart apparently forgot that *Jacosta* was prior.

8. Support received from Professor C. R. Boettger (Zoologisches Institut der Technischen Hochschule Braunschweig, Braunschweig, Germany) : On 17th March 1955, Mr. A. E. Ellis (one of the applicants in the present case) communicated to the Office of the Commission a letter dated 14th March 1955 which he had received from Professor C. R. Boettger (*Zoologisches Institut der Technischen Hochschule Braunschweig, Braunschweig, Germany*), in which that specialist had intimated his support as follows (Boettger, 1955, *Bull. zool. Nomencl.* **11** : 249) :—

Thank you very much, indeed, for the reprint of your paper on the proposed use of the Plenary Powers to preserve the generic name *Helicella* Férussac. I read it with great interest, agree with your proposal, and I hope that we shall soon have a useful nomenclature.

9. Support received from Mr. Hugh Watson (Cambridge) : On 31st March 1955, Mr. Hugh Watson (*Cambridge, England*) wrote to the Commission a letter commenting on a number of applications, among which was the present case. His remarks concerning this case were as follows :—

I strongly approve of the application of Winckworth and Ellis for the Commission to retain the name *Helicella* for the common European genus for which it is in general use and which has *H. itala* (Linnaeus) as its type species. Indeed this is much what I wrote twelve years ago in the papers quoted above (pp. 60 & 61), and accords also with Forcart's application to the Commission. To transfer *Helicella* to the genus containing *Theba pisana* (Müller) would cause dreadful confusion should the strict application of the Rules require it, and the correct generic name for *H. itala* etc. would then be in dispute, Forcart and Winckworth and Ellis differing about this. But my approval does not necessarily extend to the last two items—(5) and (6)—on p. 308, which concern another matter of less importance which I have not studied but which I think would have been better omitted from this application.

10. No objection received : No objection to the use of the Plenary Powers as proposed in this case was received from any source.

11. Representations submitted by Mr. Hugh Watson regarding the gender to be attributed to the generic name "Oxychilus" Fitzinger, 1833 : On 23rd February 1955, Mr. A. E. Ellis (one of the co-applicants in the second of the applications submitted in the present case) transmitted to the Office of the Commission the following extract from a letter dated 21st February received by him from Mr. Hugh Watson (*Cambridge*) on the subject of the gender to be attributed to the generic name *Oxychilus* Fitzinger, 1833, a name which had been treated as being of the neuter gender in the application submitted by Mr. Ellis and Mr. Winckworth :—

In this application to the Commission about the retention of *Helicella* it is rather surprising to find a paragraph on the gender of *Oxychilus* (p. 306, paragraph 9) and that this paragraph contains no reference to the argument I expressed about this matter in *J. Conchol.* 22 : 45—46 (1934). This argument of mine was based on correspondence, extending over several years, with Tomlin, who insisted that if an author employed classical usage in forming a name like this it would be masculine, for the reason I indicated in my note ; and he said that Dr. A. H. Cooke, who was an able classical scholar, agreed with him about this. My own knowledge of classics is more limited, but I could find no good reason to suppose that Tomlin and Cooke—and therefore Fitzinger—were not probably right. And I see that Pilsbry appears to accept this view, although he does not accept my view about retaining *Helicella* for *ttala*, unfortunately. It is true that on p. 51 of the Copenhagen Decisions it is recommended that words from the Greek ending in " *cheilus* " should be regarded as neuter ; but it is also recommended on the same page that these matters should be referred to the classical advisers of the Commission and modified in the light of their advice. I venture to think, therefore, that Tomlin and Cooke's argument that I have briefly expressed should be brought to the notice of the Commission, for them to obtain the opinion of their Classical Adviser about it, before they decide about the gender of *Oxychilus*. Perhaps you may be able to see that this is done.

Extract from the paper in the " Journal of Conchology " referred to above :—

This author [A. S. Kennard, 1941, *J. Conchol.* 21 : 271] treats the name *Oxychilus* Fitz. as if it were of the neuter gender, but Fitzinger himself undoubtedly regarded it as masculine, for in the

two cases in which he combined an adjective with this name he wrote *Oxychilus lucidus* and *Oxychilus nitidulus* *. In treating the name as masculine Fitzinger appears to have correctly followed the classical usage. When an adjective like οξύς sharp, is combined with a substantive like χείλος a lip, in classical usage we expect the resultant word to be an adjective and not a substantive—in this case it would be *Oxychilus -a -um* when turned into Latin. And of course the masculine form of this adjective might be used as substantive. The name would then mean the “sharp lipped one” and not simply “the sharp lip”, as it would have done had it been neuter. Modern authors often depart from classical usage in matters of this kind, but as Fitzinger did not do so there seems to be no justification for this change.

12. Advice as to the gender attributable to the generic name “Oxychilus” Fitzinger, 1833, received from Professor the Rev. L. W. Grensted, Consulting Classical Adviser to the International Commission : On 29th March 1955, Mr. Hemming, as Secretary, invited Professor the Rev. L. W. Grensted, Consulting Classical Adviser to the International Commission, to furnish a Report on the gender attributable to the generic name *Oxychilus* Fitzinger, 1833. On 15th April 1955, Professor Grensted submitted the following Report confirming the view expressed by Mr. Hugh Watson (paragraph 11 above) that the gender properly attributable to the foregoing name was the masculine gender :—

In answer to your letter of 29th March 1955 about the points raised by A. E. Ellis citing Hugh Watson :—

I am afraid that I never looked closely at *Copenhagen Decisions* 84(7)(c)(i), taking it, in spite of its bad phrasing, as a final decision. But since you now ask me to treat it critically I am bound to say that I think it is unsound, and its conclusion wrong—and that Hugh Watson, following Tomlin and A. H. Cooke, is right. The following are the points :

- (1) The phrase “by reason of having the termination -os” is nonsense. By far the majority of Greek nouns in -os are masculine.
- (2) “-stathus” is not a Greek word as it stands. It represents δτῆθος (stethos) and though derived from it is, in neo-Latin, a coinage.
- (3) In all these words the termination -us, though representing the Greek -os, is a Latinization and that seems to bring them under 84(3) and make them masculine.

* This statement is not quite accurate, as Fitzinger also wrote *Oxychilus cellaria*, and thus was inconsistent, as stated on p. 307 of this Application.—A. E. ELLIS.

(4) The most important point of all is that made by Hugh Watson, and his argument can be greatly strengthened. The point is this :— In a word of the form of, say, *Ornithorrhynchus*, the Greek original *ὀρνιθόρρυγχος* would be an adjective and the final -os is not the -os of *ὀρνιθόρρυγχος* but the adjectival termination. I have verified this for a whole series of relevant Greek forms which are actually found in classical Greek, e.g. *μεγαλόδδτηθος*, *δέύρρυγχος*, *πλατύρρυγχος*, *πληδύγναθος*, *λεπτόραμφος*, *λενκόρυγχος* and, most relevant of all, *λεπτόχειλος* (*Leptocheilus*) which occurs as a variant reading of *λεπτοχέιλης* in Aristotle, *Hist. Anim.* 528a 29. All these would, if used in modern generic nomenclature, give forms ending in -us and coming under 84(7)(c)(i). And they should certainly all be masculine, a conclusion which agrees with the obvious intention of 84(3).

There is of course a real confusion with this small group of words, in that the final -os in the Greek form makes the adjectival termination indistinguishable from the neuter -os termination of the noun. But I don't think the argument for a neuter gender in these cases can properly be sustained.

P.S. There is nothing to distinguish these forms from such names as *Conosomus* (from *σῶμα*) which is certainly masculine [84(3)].

13. Bibliographical References for the family-group name "HELICELLINAE" : On 28th March 1955, Dr. Lothar Forcart (*Naturhistorisches Museum, Basel, Switzerland*) addressed the following letter to the Secretary to the Commission, drawing attention to a bibliographical reference for the family-group name HELICELLINAE of older date than that cited by Mr. Ellis and Mr. Winckworth in the application submitted by them to the Commission (paragraph 2 above) (Forcart, 1955, *Bull. zool. Nomencl.* **11** : 264) :—

On pages 307 and 308, you supposed Schlesch, 1927 (*Korresp. Bl. Naturf.-Ver. Riga* **59** : 116) to be the author of HELICELLINAE. Schlesch is not the author of this subfamily, but Hesse in 1926 in "Beiträge zur genaueren Kenntnis der Subfamilie Helicellinae" (*Arch. Moll.* **58**(3) : 115, published 1st May 1926).

14. Rectification of a minor omission in the summary given by Mr. Ellis and Mr. Winckworth in paragraph 11 of their application to the Commission : On 10th July 1955, Mr. Hemming placed on the Commission's File Z.N.(S.) 214, the following Minute drawing attention to a minor omission in the summary given by

Mr. Ellis and Mr. Winckworth in paragraph 11 of their application to the Commission (paragraph 2 above), the purpose of this Minute being to place this matter on record in anticipation of the issue of a Voting Paper to the Commission in connection with the foregoing application :—

Rectification of a minor omission in the summary given in paragraph 11 of the application submitted by Mr. A. E. Ellis and Mr. R. Winckworth in regard to the generic name " *Helicella* " Férussac, 1821

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

I have this day re-examined the applications in regard to the generic name *Helicella* Férussac, 1821, submitted respectively by Dr. Lothar Forcart and by Mr. A. E. Ellis and Mr. R. Winckworth in anticipation of the preparation of a Voting Paper for submission to the Commission. In doing so, I have noted a minor omission in the summary given in paragraph 11 of the application submitted by the last-mentioned authors, to which it will be necessary to draw special attention in the notes accompanying the foregoing Voting Paper when issued.

2. In their application the above authors refer (paragraph 2) to the generic name *Euparypha* Hartmann, 1844, the type species of which by monotypy is the nominal species *Helix rhodostoma* Draparnaud, [1801]. Later in the same paper (paragraph 6) the name *Euparypha* Hartmann is dismissed as a junior synonym of *Theba* Risso. It was not stated clearly whether this synonymy was subjective or objective and, when discussing this case with Mr. Ellis prior to its publication in the *Bulletin*, I had concluded that it was subjective only. I now find, however, that the name *Helix rhodostoma* Draparnaud is no more than a replacement name for *Helix pisana* Müller (O.F.), 1774, the name of the type species of *Theba* Risso. Thus, although the nominal genera *Theba* Risso, 1826, and *Euparypha* Hartmann, 1844, have different nominal species as their respective type species, those nominal species are based upon the same type specimen and in consequence the foregoing generic names are objective synonyms of one another. The name *Euparypha* Hartmann and also the name *rhodostoma* Draparnaud, the name of the type species of *Euparypha* Hartmann, are thus seen to be objectively invalid and should now be placed on the appropriate *Official Indexes of Rejected and Invalid Names in Zoology*.

15. Explanatory Note annexed to the Voting Paper prepared for issue in the present case : On 21st July 1955, Mr. Hemming prepared the Voting Paper to be issued in the present case and added the following as Note 4 to be issued therewith :—

Three minor corrections :—(1) *Euparypha* Hartmann, 1844 (a junior objective synonym of *Theba* Risso, 1826) : The proposed addition of this name to the *Official Index of Rejected and Invalid Generic Names in Zoology* was inadvertently omitted in the application as printed. (2) The gender for *Oxychilus* was given incorrectly in the application (: 307) as neuter but it should be masculine (*J. Conch.* **22** : 45—46). The Consulting Classical Adviser fully supports this view. (3) Forcart (**11** : 264) provides an earlier reference for the name HELICELLINAE.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

16. Issue of Voting Paper V.P.(55)8 : On 5th August 1955 a Voting Paper (V.P.(55)8) was issued in which the Members of the Commission were invited to vote either for, or against, “the proposal relating to the generic name *Helicella* Férussac, 1821, as set out in paragraph 11 on pages 307 and 308 of Volume 9 of the *Bulletin of Zoological Nomenclature*”, [i.e. in the paragraph numbered as above of the application by Mr. Ellis and Mr. Winckworth reproduced in paragraph 2 of the present *Opinion*], “subject to the three minor adjustments specified in Note 4” [i.e. the Note reproduced in paragraph 15 above].

17. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 5th November 1955.

18. Particulars of the Voting on Voting Paper V.P.(55)8 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)8 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Riley ; Vokes ; Stoll ; Hering ; Bradley (J.C.) ; Lemche ; Prantl ; Hankó ; Mayr ; do Amaral ; Esaki ; Kühnelt ; Dymond ; Key ; Mertens ; Bonnet ; Hemming ; Jaczewski ; Miller ; Sylvester-Bradley ; Cabrera ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned, two (2) :*

Boschma¹ ; Tortonese¹.

19. Declaration of the Result of Vote : On 6th November 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55)8, signed a Certificate that the Votes cast were as set out in paragraph 18 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

¹ After the close of the Prescribed Voting Period a late affirmative Vote was received from Commissioner Boschma and from Commissioner Tortonese.

20. Preparation of the Ruling given in the present "Opinion" :
On 17th May 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)8.

21. Original References : The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

cartusiana, Helix, Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.*
2 : 15

cellaria, Helix, Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.*
2 : 28

Euparypha Hartmann, 1844, *Erd. u. Süßwasser-Gasteropoden* : 204

Helicella Lamarck, 1812 (a cheironym cited by Chenu, 1859,
Manuel Conchyliol. 1 : 421)

Helicella Férussac, 1821, *Tabl. syst. Anim. Moll. suiv. Prodr. gén.*
Moll. terrestr. fluviat. viv. foss. : 28 (issued in parts with Férussac's
Hist. nat. gén. partic. Moll. terrestr. fluviat.)

itala, Helix, Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 772

Jacosta Gray (J.E.), March 1821, *London med. Repository* 15 : 239

Monacha Fitzinger, 1833, *Beitr. z. Landesk. Oesterreichs unter d.*
Enns 3 : 95

Oxychilus Fitzinger, 1833, *Beitr. z. Landesk. Oesterreichs unter*
d. Enns 3 : 100

pisana, Helix, Müller (O.F.), 1774, *Verm. terrestr. fluviat. Hist.*
2 : 60

Planatella Clessin, 1876, *Deutsch. Excursions Mollusken-Fauna* :
143

rhodostoma, *Helix*, Draparnand, [1801], *Hist. nat. Moll. terr. fluviat. France* : 86

Theba Risso, 1826, *Hist. nat. princ. Productions Europ. mérid.*
4 : 73

Xerophila Held, 1837, Oken's *Isis* **30**(12) : 913

21. The following are the references for the selection of the type species of the genera specified in the Ruling given in the present "Opinion" :—

For *Monacha* Fitzinger, 1833 : Gray (J.E.), 1847, *Proc. zool. Soc. Lond.* **15** : 173

„ *Oxychilus* Fitzinger, 1833 : Herrmannsen, 1847, *Indic. Gen. Malacoz. Primordia* **2** : 183

„ *Theba* Risso, 1826 : Gray (J.E.), 1847, *Proc. zool. Soc. Lond.*
15 : 173

23. The following are the original references for the family-group names placed on the "Official List" and "Official Index" established for the recording of the names of taxa belonging to the family group category :—

HELICELLINAE Chenu, 1859, *Manuel Conchyliol.* **1** : 421

HELICELLINAE Hesse, 1926, *Arch. Moll.* **58**(3) : 115

24. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

25. The present *Opinion* shall be known as *Opinion* Four Hundred and Thirty-One (431) of the International Commission on Zoological Nomenclature.

DONE in London, this Seventeenth day of May, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 16. Pp. 373—392

OPINION 432

Rejection, as an unpublished proof, of the paper by Binney (W.G.) dated "9th December 1863" and entitled *Synopsis of the Species of Air-breathing Mollusks of North America* (confirmation of Ruling given in *Opinion 87*) and validation under the Plenary Powers of the generic name *Carinifex* Binney, 1865 (Class Gastropoda)

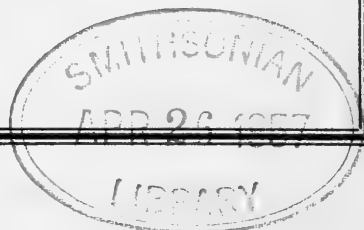
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 432

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(12th August 1953)

Vice-President: Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary: Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(*arranged in order of precedence by reference to date of election or of most recent re-election
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(1st January 1947)

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Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

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Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August
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(12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation,
Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*)
(29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th
October 1954)

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(6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November
1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge,
Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*)
(16th December 1954)

OPINION 432

REJECTION, AS AN UNPUBLISHED PROOF, OF THE PAPER BY BINNEY (W.G.), DATED "9TH DECEMBER 1863" AND ENTITLED "SYNOPSIS OF THE SPECIES OF AIR-BREATHING MOLLUSKS OF NORTH AMERICA" (CONFIRMATION OF RULING GIVEN IN "OPINION" 87) AND VALIDATION UNDER THE PLENARY POWERS OF THE GENERIC NAME "CARINIFEX" BINNEY, 1865 (CLASS GASTROPODA)

RULING :—(1) It is hereby ruled that the under-mentioned paper, having been distributed only as an unpublished proof does not satisfy the requirements of Article 25 of the *Règles* and therefore that no new name included in it acquired thereby the status of availability (confirmation of Ruling given in *Opinion* 87) :—

Binney (W.G.), *Synopsis of the species of Air-breathing Mollusks of North America*, dated 9th December 1863, a document printed on one side of the page and distributed as a proof of a projected and un-numbered part of the *Smithsonian miscellaneous Collections*, bearing the heading "Smithsonian Miscellaneous Collections 000".

(2) The title of the work specified in (1) above is hereby placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* with the Title No. 50.

(3) Under the Plenary Powers the generic name *Megasystropha* Lea, 1864, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(4) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1028 :—*Carinifex* Binney, 1865, as validated by the suppression under the Plenary Powers in (3) above of the generic name *Megasystropha* Lea, 1864 (gender : feminine) (type species, by selection by Fischer (P.) (1883) : *Planorbis newberryi* Lea, 1858) (Class Gastropoda).

(5) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 1048 :—*newberryi* Lea, 1858, as published in the combination *Planorbis newberryi* (specific name of type species of *Carinifex* Binney, 1865).

(6) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Carinifex* Binney, 1863 (a name included in a work rejected under (1) above as not having been published for the purposes of Article 25 of the *Règles*) (Name No. 740) ;
- (b) *Megasystropha* Lea, 1864, as suppressed under the Plenary Powers under (3) above (Name No. 741) ;
- (c) *Carnifex* Keep, 1893 (an Erroneous Subsequent Spelling of *Carinifex* Binney, 1865) (Name No. 742) ;
- (d) *Megastropha* Walker, 1918 (an Erroneous Subsequent Spelling of *Megasystropha* Lea, 1864) (Name No. 743).

I. THE STATEMENT OF THE CASE

On 6th February 1946 Dr. Joshua L. Baily, Jr. (*San Diego, California, U.S.A.*) addressed a letter to the Office of the

Commission requesting a Ruling on the relative status of the names *Carinifex* Binney, 1863, and *Megasystropha* Lea, 1864. As a result of correspondence between Dr. Baily and the Secretary to the Commission on the difficulties involved in this case the following revised application on the question of the generic name *Carinifex* Binney was submitted to the Commission by Dr. Baily in January 1953 :—

**Proposed use of the Plenary Powers to validate the generic name
“ *Carinifex* ” Binney, 1865 (Class Gastropoda)**

By JOSHUA L. BAILY, Jr.

(*San Diego, California, U.S.A.*)

In the course of an investigation on which I am engaged, the old matter of the relative status of the names *Carinifex* Binney, 1863, and *Megasystropha* Lea, 1864 (Class Gastropoda, Order Pulmonata, Suborder Basommatophora), has come up again, and I accordingly appeal to the International Commission on Zoological Nomenclature for a decision which will finally settle this question in favour of the name *Carinifex* Binney.

2. This question was submitted by Dr. W. H. Dall to the International Commission some years ago, and the Commission's decision was given in *Opinion* 87. On re-reading that *Opinion*, I have, however, been led to the conclusion that not all the relevant data were before the Commission at the time when it gave the Ruling embodied in the foregoing *Opinion*. In any case that *Opinion* did not provide a definite answer on the question submitted of the availability of the generic name *Carinifex* Binney, by placing either that name or the name *Megasystropha* Lea on the *Official List of Generic Names in Zoology*.

3. The following is a list of the papers which are relevant to the present problem :—

- (1) In 1858 Lea published a paper (*Proc. Acad. nat. Sci. Philad.* 10 : 91) in which he gave a recognisable description of a species to which he applied the name *Planorbis newberryi*. The specimens on which the description of this species was based were taken at Klamath Lake and Canoe Creek, California.
- (2) In 1863 there appeared a pamphlet bearing the title “ Smithsonian Miscellaneous Collection 000 ” [i.e. issued without a number], which bore the date 9th December 1863. In this pamphlet

Binney, under the heading "Planorbinae", listed without comment the names of various species of *Planorbis* and *Segmentina*. At the same time Binney listed without comment what he called "*Carinifex newberryi* Lea".

- (3) In 1864 (*Proc. Acad. nat. Sci. Philad.* 16 : 5) Lea published a description of his *Planorbis newberryi* (in supplement to that which he had published in 1858); at the conclusion of this paper, he added under the heading "Remarks": "This is a very remarkable shell, and I have placed it among the *Planorbes*, until the soft parts may be observed in a living state; they may be found to differ from the true *Planorbes*". Further, he added in a footnote: "Provisionally it may be called *Megasytropha* . . . the umbilicus being large and vortex-like".
- (4) In February 1865 Binney published a paper (*Amer. J. Conch.* 1 : 50, pl. 7, figs. 6—7), which contained the first published figure of the species *Planorbis newberryi* Lea, 1858. In this paper Binney referred to this species as *Carinifex newberryi* (Lea).
- (5) In September 1865 Binney published a further paper ("Land and Freshwater Shells of North America") (*Smithson. misc. Coll.* 143 (Pt. 2) : 74—75), in which he defined the genus *Carinifex* and gave a figure of *Carinifex newberryi* (Lea) (fig. 120).
- (6) In 1867 Lea published a paper (*J. Acad. nat. Sci. Philad.* 6) in which he gave a figure (pl. 23, fig. 68) of the species to which in 1858 he had given the name *Planorbis newberryi* and which he now referred to under the name *Megasytropha newberryi*.

4. The discussion of the generic name *Carinifex* has centered around the question whether Binney's paper of 1863 can be regarded as having been duly published and whether the citation in that paper of the name "*Carinifex newberryi* Lea", without any supporting data is sufficient to identify the species to which Binney was referring. On both these questions an adverse view was taken by the Commission in *Opinion 87*. As regards the second of these questions it was pointed out in that *Opinion* that Lea had published other specific names comprising the trivial name, *newberryi*, e.g. *Ancylus newberryi*, *Goniobasis newberryi* and *Melania newberryi*, and the view was expressed that, as Binney did not cite either the name of the genus in which Lea had originally published the species to which he (Binney) was referring or a bibliographical reference to the place where that name was published, it was not possible to determine the identity of the species cited by Binney as "*Carinifex newberryi* Lea" and therefore that the generic name *Carinifex* acquired no availability in virtue of being so cited. Considering that the species with which we are here concerned was originally described by Lea as belonging to the genus *Planorbis* and that the name "*Carinifex newberryi* Lea" cited by Binney was placed

by that author under the heading "Planorbinae", the foregoing objection advanced against the identification of the species referred to by Binney does not stand any close examination. The other ground on which in *Opinion 87* the Commission rejected Binney's name *Carinifex*, namely that the document in which it appeared was a printers' proof appears to be open to question, for it was printed and distributed from the Smithsonian Institution in considerable numbers for comment by interested specialists, whereas a printers' proof is a document printed in only a very small number of copies, its sole purpose being to enable the author to make such corrections as are necessary before the book or paper concerned is actually published. It would, therefore, as it seems to me, have been more appropriate to examine the availability of Binney's book not from the standpoint of whether it existed only as a printers' proof (as was done in *Opinion 87*) but from the more general standpoint of whether it had been duly published within the meaning of Article 25. Admittedly, such an approach to the problem would have been difficult at the time when the Commission considered Dr. Dall's application in regard to the status of the name *Carinifex* Binney, for at that time there existed only the sketchiest definition of the criteria to be adopted in determining whether a given document should be regarded as having been "published" for the purposes of the Article referred to above. This was still the position when in 1946 I first submitted the present application to the Commission for decision. Since then, however, the position has been completely altered by the comprehensive definition of the expression "divulgué dans une publication" adopted by the Thirteenth International Congress of Zoology (on the recommendation of the International Commission on Zoological Nomenclature) at Paris in July 1948. Under that definition (1950, *Bull. Zool. Nomencl.* 4 : 215—221) it is evident that the paper by Binney in which the name *Carinifex* first appeared, did not satisfy the conditions provided in the *Règles* as criteria for publication at the time it was printed, but the question then arises as to whether it acquired status as a publication within the meaning of the *Règles* when these conditions were later complied with by the distribution of quantities of printed copies to dealers for resale to the public, and the public advertising of the availability of the documents in such a way as to secure universal circulation. The International Commission on Zoological Nomenclature has never rendered an opinion as to whether a printed sheet not intended as a publication can subsequently become one by fulfilment of the requirements set out in a definition of what constitutes publication; in the present instance we are not justified in concluding that the name *Carinifex* acquired no status in zoological nomenclature by virtue of having been included in that paper, but only that a reasonable doubt exists as to whether it may have done so.

5. Turning to Lea's paper of 1864, no one will deny that the method there adopted for publishing the new generic name *Megasystropha* deserves the strongest censure, for the conditional publication of names

in this way opens the door to serious abuses. Nevertheless, although there now exists in the *Règles a Recommandation* strongly deprecating the publication of names conditionally it is not prohibited (1950, *Bull. zool. Nomencl.* 4 : 144—145), though, since the addition to Article 25 of Proviso (c) (which requires that a statement of the distinguishing characters must be published in order to render available any name published after 31st December 1930), it has become impossible validly to publish a name in the manner adopted by Lea, when publishing the name *Megasystropha*. The name *Megasystropha* Lea, 1864, cannot therefore be ruled out of account ; it is true that Lea gave no characters for this genus but he did cite as belonging to it a species possessing a previously published specific name (*Planorbis newberryi* Lea, 1858). The name *Megasystropha* therefore was published with an “ indication ” as required by Proviso (a) to Article 25 (1950, *Bull. zool. Nomencl.* 4 : 78—80). Further, its type species is *Planorbis newberryi* Lea, 1858, by monotypy.

6. We come next to Binney's papers published in 1865, in each of which he used the generic name *Carinifex*. In the first of these papers—that published in February 1865 in the *American Journal of Conchology*—Binney, who in 1863 had made clear that, in his view, his Catalog of the North American Pulmonates printed by the Smithsonian Institution (discussed earlier in the present application) could not properly be regarded as having been then published, seems now to have changed his mind, for on this occasion he wrote : “ In the above catalog I proposed the generic name *Carinifex* for the species described as *Planorbis newberryi* Lea . . . Two species of this genus have been described, *C. newberryi* and *C. breweri*, Newcomb. The latter may prove to be a variety of the former ”. It is evident from these words that Binney did not look upon himself as then publishing the name *Carinifex* for the first time, but it is in fact from this paper that under the *Règles* the name *Carinifex* takes priority. It will be noted that Binney did not designate a type species for *Carinifex*, probably because he considered that as the result of his earlier (1863) action *Planorbis newberryi* Lea, 1858, was already the type species by monotypy.

7. Under a strict application of the *Règles* Binney was free to designate a type species either of the two nominal species which he assigned to *Carinifex* in the first of his two papers published in 1865, but since *Carinifex breweri* was a *species inquirenda* it must be excluded for consideration by any subsequent writer as type. Therefore the type species must be *Carinifex newberryi* Lea, and the only problem is to determine who first so designated it. Baker (1945, *The Molluscan family Planorbidae* : 154) lists ten designations of this species, but examination of the works in which the supposed designations were made indicated that most of them cited the species only as an example. The first author to state unequivocally that *Carinifex newberryi* was the type species of *Carinifex* was Paul Fischer (1883, *Man. de Conchyl.*

1 : 508). To be sure, Fischer did not state that he was designating a type species ; the implication is that he was citing a species which he believed had already been designated type species, and which under the rules is the only one that can serve as such and I can see no reason why Fischer's statement " Type : *C. newberryi* Lea " should not be accepted as a legitimate type designation.

8. In the light of the foregoing survey it appears that (1) under the *Règles* it is doubtful whether the generic name *Carinifex* in Binney's 1863 paper has any nomenclatorial status ; (2) that in 1864 Lea established validly (though in an objectionable manner) the generic name *Megasystropha* and that the type species of this genus by monotypy is *Planorbis newberryi* Lea, 1858 ; (3) that in 1865 Binney established the nominal genus *Carinifex* in conditions which satisfy the *Règles* and that this genus also has the above species as its type species (by subsequent selection) ; (4) that, in consequence of (2) and (3) above, the nominal genera *Megasystropha* Lea, 1864, and *Carinifex* Binney, 1865, are objectively identical with one another and the name *Carinifex* Binney is a junior objective synonym of *Megasystropha* Lea.

9. Passing now from the question of the legal position of these names under the *Règles* to the question of the nomenclatorial practice of workers in this field, we find almost unanimous agreement in favour of *Carinifex*. This name has been used in the following works :

- Fischer, P. 1883. *Manuel de Conchyliologie* 1 : 508
 Tryon, G. W. 1884. *Structural and Systematic Conch.* 3 : 105
 Clessin, S. 1886. " Die Familie der Limniaden ". *Syst Conch. Cab.*
 Cooke, A. H. 1895. *Cambridge Natural History* 3 : 439
 Walker, B. 1918. *Misc. Publ. Mus. Zool. Univ. Mich.*, No. 6 : 15, 106
 Germain, L. 1923. *Rec. Ind. Mus.* 21 : 188
 Wenz, W. 1923. *Fossil. Cat.*, pars 22 : 1671
 Pilsbry, H. A. 1926. *Science* 64 : 248
 Henderson, J. 1929. *Univ. Colo. Studies* 17(2) : 143
 Chamberlin, R. V., and Jones, D. 1929. *Bull. Univ. Utah* 19(4) : 155
 Thiele, J. 1931. *Handb. der Syst. Weichth.* 1(2) : 480.

Also, in an unpublished manuscript monograph of this genus by G. Dallas Hanna which I have had the privilege of examining, the name *Carinifex* is used, and H. B. Baker who kindly assisted me by consulting bibliographical references when I first submitted this application to the Commission, also prefers *Carinifex*. Four new species of the genus have been described in the present century, all under the name *Carinifex*;

not one of the specific names has ever been used in combination with the generic name *Megasystropha*. The only authors to use *Megasystropha* at all, so far as I have been able to learn are the following :—

Tryon, G. W., Jr. 1870. “ Continuation of Haldeman, Monograph of Fresh Water Gastropodes of the United States ” : 84

Dall, W. H., 1924, *Prof. Paper U.S. geol. Surv.* No. 132(G) : 112.

Of these, Tryon published an additional instalment of the same work later in the same year, in which he restored the name *Carinifex* (: 187, 214). Even Lea, the author of the name *Megasystropha*, ultimately abandoned it in favour of Binney's *Carinifex*.

10. For the sake of completeness a misspelling of each of these names should be noted here. Keep (*West Coast shells*, edition of 1893, : 116) used *Carnifex*, the same spelling being used in the index. Further, the pronunciation is indicated so that this seems to be an intentional emendation.

In addition, Walker (*Synopsis of the Classification of Fresh Water Mollusca of North America, North of Mexico, Univ. of Mich.* Publ. No. 6) uses the spelling *Megastropha* in the text, with the correct orthography in the index. This is clearly a typographical error. The name should be suppressed in such a way as to prevent its ever being used again, as there is a *Megastrophia* Carter 1939 (*Bull. Amer. Paleont.*, 24 : 137 (no. 83, 87)) and the similarity of these two is too close for comfort.

11. In view of the position which the name *Carinifex* has acquired for itself in the literature, its unquestioned use today and the fact that even in the past the name *Megasystropha* was only used on a few scattered occasions, it is clear that the interests of nomenclatorial stability would be promoted and unnecessary confusion avoided, if the Commission would now take such steps as are necessary to confer nomenclatorial availability upon the name *Carinifex* Binney. I accordingly ask the International Commission on Zoological Nomenclature :—

- (1) to use its Plenary Powers to suppress the generic names *Carinifex* Binney, 1863 and *Megasystropha* Lea, 1864, for the purposes of the Law of Priority ;
- (2) to place on the *Official List of Generic Names in Zoology* the name *Carinifex* Binney, 1865 (gender : feminine) (type species, by subsequent designations of P. Fischer, 1883 : *Planorbis newberryi* Lea, 1858) ;
- (3) to place on the *Official List of Specific Names in Zoology* the specific name *newberryi* Lea, 1858, as published in the combination *Planorbis newberryi* ;

(4) to place on the *Official Index of Rejected and Invalid Generic Names in Zoology* the following :—

- Carinifex* Binney, 1863
- Megasystropha* Lea, 1864
- Carnifex* Keep, 1893
- Megastropha* Walker, 1918.

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of Dr. Baily's application the question of the use by the International Commission of its Plenary Powers to validate the generic name *Carinifex* Binney, 1865, was allotted the Registered Number Z.N.(S.) 224.

3. Alternative proposal submitted by the Secretary to the Commission : Mr. Hemming, as Secretary, took the view that in one respect the procedure proposed in Dr. Baily's application was open to objection, for in the concluding paragraph of his application he asked the International Commission to use its Plenary Powers to suppress the name *Carinifex* Binney, 1863, thereby implicitly, though not explicitly, asking it to take the stand that it had been in error when in *Opinion 78* it had dealt—in an admittedly elusive manner—with the status under Article 25 of the paper by Binney which was distributed in 1863 as a proof of a prospective paper in the *Smithsonian Miscellaneous Collections* (see paragraph 3(2) of Dr. Baily's application). Mr. Hemming considered that the foregoing request in relation to the generic name *Carinifex* Binney, 1863, would have been perfectly in order if Dr. Baily had joined to it a request either that the Commission should direct that *Opinion 78* was not to be taken as constituting a rejection of Binney's paper or if he had asked the Commission to validate that paper under its Plenary Powers. In the circumstances Mr. Hemming submitted for the

consideration of the Commission the following alternative proposal which avoided the difficulties discussed above, while at the same time meeting entirely the desire of Dr. Baily that the name *Carinifex* should be validated as from the paper by Binney entitled "Land and Freshwater Shells of North America" published in September 1865 in No. 143 (Pt. 2) of the *Smithsonian Miscellaneous Collections* :—

Comment on Dr. Joshua L. Baily Jr.'s proposal for the validation of the generic name "Carinifex" Binney, 1865 (Class Gastropoda) and an alternative proposal

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

Dr. Joshua L. Baily, Jr., has shown in his application that the generic name *Carinifex* Binney, either as of 1863 or as of 1865, has been widely used in the literature, while its older and valid rival *Megasystropha* Lea, 1864, was not only published in a most unsatisfactory manner, but, in addition, has hardly been used at all.

2. Dr. Baily has therefore, I consider, established a strong case for the use of the Plenary Powers for the purpose of validating the name *Carinifex* Binney. There is, however, one passage in his paper upon which I feel bound to comment. This is where he seeks to establish the proposition that the Commission was in error when in 1925 in its *Opinion* 87 (*Smithson. misc. Coll.* 73 (No. 3) : 21—22) it rejected as not having been duly published for the purposes of Article 25 a paper by Binney, as distributed in 1863 in proof as a projected part of the *Smithsonian miscellaneous Collections*. Further, at the end of his paper Dr. Baily asks the International Commission to use its Plenary Powers for the purpose, *inter alia*, of suppressing the name *Carinifex* Binney, 1863, i.e. for suppressing this name as it appeared in the proof sheet dealt with in *Opinion* 87. While it is easy to criticise the oblique manner in which the Ruling given in *Opinion* 87 was phrased and not difficult also to find defects in some of the arguments used incidentally in the discussion of that case, this, I suggest, is today of no more than historical interest. Equally, it is, I feel, beside the point at this date to traverse again the wisdom of the adverse view taken by the Commission as to the availability of the proof of 1863, though, having regard to the fact (1) that the document in question was issued as an unnumbered proof and (2) that in the preface to this document Professor Henry expressly referred to it as "a mere proof", it is difficult to see how the Commission, when judging this document against the provisions of Article 25, could possibly have taken any view other than that which it did.

3. The only point which arises today is, as it seems to me, whether there are any grounds which would justify the Commission at this time in reversing—or even in re-opening—the decision which it took in this matter nearly thirty years ago, a decision against which no murmur of dissent has till now ever reached the Office of the Commission. My view is that the Commission would be most ill-advised to take any such action. Moreover, as Secretary to the Commission, I take the view that it is irrelevant and inappropriate to raise such an issue incidentally in a case dealing with an individual name. My recommendation is that the Commission should (1) dispose of the general question by placing the Binney proof of 1863 forthwith on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature*, which, as will be recalled, was expressly established by the Fourteenth International Congress of Zoology, Copenhagen, 1953, for the purpose of placing on record in the most formal manner Rulings given by the Commission in *Opinions* either suppressing given books under its Plenary Powers or rejecting given books as invalid under the *Règles* (1953, *Copenhagen Decisions zool. Nomencl.* : 23—24, Decision 23), and (2) deal on its merits with the particular case of the name *Carinifex* Binney, 1865, in the light of (1) above.

4. I accordingly submit for the consideration of the International Commission the following proposal as an alternative to that submitted by Dr. Baily, namely that the Commission should :—

(1) place the under-mentioned work on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* :—

Binney (W.G.), *Synopsis of the species of Air-breathing Mollusks of North America*, dated 9th December 1863, a document printed on one side of the page and distributed as a proof of a projected and unnumbered part of the *Smithsonian miscellaneous Collections*, bearing the heading “ Smithsonian Miscellaneous Collections 000 ” (codification of Ruling given in *Opinion* 87) ;

(2) use its Plenary Powers for the purpose of suppressing the generic name *Megasystropha* Lea, 1864, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;

(3) place the under-mentioned generic name on the *Official List of Generic Names in Zoology* : *Carinifex* Binney, 1865 (gender : feminine) (type species, by selection by Fischer (P.), (1883) : *Planorbis newberryi* Lea, 1858) ;

(4) place the under-mentioned specific name on the *Official List of Specific Names in Zoology* : *newberryi* Lea, 1858, as published in the combination *Planorbis newberryi* (specific name of type species of *Carinifex* Binney, 1865) ;

- (5) place the under-mentioned invalid generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
- (a) *Carinifex* Binney, 1863 (a name included in a work rejected under (1) above as not having been published for the purposes of Article 25 of the *Règles*) ;
 - (b) *Megasystropha* Lea, 1864, as suppressed under the Plenary Powers under (2) above ;
 - (c) *Carnifex* Keep, 1893 (an Invalid Subsequent Spelling of *Carinifex* Binney, 1865) ;
 - (d) *Megastropha* Walker, 1918 (an Invalid Subsequent Spelling of *Megasystropha* Lea, 1864).

5. *Postscript* : Dr. Baily has informed me (*in litt.*, 13th October 1954) that the generic name *Carinifex* has not been taken as the basis for a family-group name. Accordingly, no question arises of placing such a name on the *Official List of Family-Group Names in Zoology*.

4. Publication of the present application : The present application, together with Mr. Hemming's alternative proposal, was sent to the printer on 13th October 1954 and both documents were published on 30th December in the same year in Part 11 of Volume 9 of the *Bulletin of Zoological Nomenclature* (Baily, 1954, *Bull. zool. Nomencl.* **19** : 321—326 ; Hemming, *ibid.* **9** : 326—328).

5. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 30th December 1954 (a) in Part 11 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Baily's application and Mr. Hemming's alternative application were published) and (b) to the other prescribed serial publications. In addition, such notice was given also to certain general zoological serial publications and to two conchological serials.

6. Comments received in regard to the present case : The publication of the papers by Dr. Baily and by Mr. Hemming, together with the issue of the accompanying Public Notices elicited comments from seven specialists (U.S.A., six specialists ;

United Kingdom, one). Of these specialists one only (Professor Horace B. Baker) commented on the alternative procedures suggested in the present case. The comments so received are reproduced in the immediately following paragraphs.

7. Support received from Horace B. Baker (Zoological Laboratory, University of Pennsylvania, Philadelphia, U.S.A.): On 3rd March 1955 Professor Horace B. Baker (*Zoological Laboratory University of Pennsylvania, Philadelphia, U.S.A.*) addressed to the Office of the Commission the following letter in support of the present application (Baker, 1955, *Bull. zool. Nomencl.* **11** : 272):—

Dr. Baily's "Proposed use of the Plenary Powers to validate the generic name '*Carinifex*' Binney, 1865 (Class Gastropoda)", (1954 *Bull. zool. Nomencl.* **9**(11) : 321—326), is backed strongly by me. Everybody in the United States, so far as I know, used *Carinifex* anyway. Although we agree with your defense of *Opinion 87* in principle, we also know that W. G. Binney's check-list (1863) although in the form of "proof-sheets", actually had a wide general distribution (i.e., it was published). Apparently, anyone could have obtained it and many did; at various times since 1910, I have picked up 3 second-hand copies. However, except for *Carinifex*, your proposal to invalidate it would be acceptable.

8. Support received from Sir Philip Manson-Bahr (London): On 9th March 1955 Sir Philip Manson-Bahr (*London*) addressed the following letter to the Commission in support of Dr. Baily's application :—

For some time past I have been in communication with Dr. Joshua Baily, Jr., of San Diego upon the nomenclature of certain snails. I cannot in any way claim to be a malacologist, but I am deeply interested in these freshwater molluscs which act as intermediary hosts for human parasites. Thus, as I edit the text book *Tropical Diseases* I am deeply perturbed with the changes in nomenclature in the genera *Planorbis* and *Bullinus*.

It is really becoming so confusing that the teaching of this subject has become seriously embarrassed.

Dr. Baily is at present concerned with the nomenclature of *Carinifex* which belongs to the PLANORBIDAE and is a potential carrier of

Schistosomiasis in Man. That means to say it could be infected if the human disease was introduced into California. Cram and colleagues (1945, *Science*, **23** : 302) have already shown that *Tropicorbis havanensis* and *Deplanotrema cultratus*, widely distributed in Louisiana, Texas and Cuba, are good laboratory hosts of this parasite and could easily become very dangerous were this human parasite introduced.

9. Support received from Rawson J. Pickard (Clinical Laboratory, San Diego, California, U.S.A.) : On 11th March 1955 Dr. Rawson J. Pickard (*Clinical Laboratory, San Diego, California, U.S.A.*) addressed the following letter of support to the Office of the Commission :—

Dr. Joshua Baily has let me read his paper on a proposed name for *Carinifex* Binney, 1865, published in the *Bulletin of Zoological Nomenclature*. He mentioned to me the possibility of this snail becoming host to parasites of humans, and standardisation of nomenclature helpful to researchers ; who, in any scientific (biological sciences) now must research first in the long list of “ nyms ” epo (may be ano) nyms before going to work.

Brumpt gives a considerable list of Planorbis species that are host to human parasites. In Minnesota and that region there is now a species host to a parasite so far causing only “ swimmers’ itch ” the parasite dying in the skin. What a happy thought that a new disease may appear with a visible cause instead of the many new viruses (i.e. guessed diagnoses).

I trust that you are on the side of simplification.

10. Support received from W. McBlair (San Diego State College, San Diego, California, U.S.A.) : On 13th April 1955 Professor W. McBlair (*San Diego State College, San Diego, California, U.S.A.*) addressed the following letter of support to the Office of the Commission :—

May I use this letter to support the use of the generic term *Carinifex* instead of *Megasystropha* in the *Official List of Generic Names in Zoology* ?

11. Support received from Robert D. Harwood (San Diego State College, San Diego, California, U.S.A.) : On 15th April 1955 Professor Robert D. Harwood (*San Diego State College,*

San Diego, California, U.S.A.) addressed the following letter of support to the Office of the Commission :—

I wish to add my note of approval for the recommendation of Dr. Joshua L. Baily regarding the validation of generic name *Carinifex* (Class Gastropoda). I have great respect for the opinion of Dr. Baily and also feel that to instate a name of questionable seniority would be a mistake.

12. Support received from E. P. Chace and Elsie M. Chace (Natural History Museum, San Diego, California, U.S.A.) : On 10th May 1955 Elsie M. Chace and E. P. Chace (both of the *Natural History Museum, San Diego, California, U.S.A.*) jointly addressed a letter to the Office of the Commission on a number of cases which included the present case. The relevant extract of this letter is as follows :—

It seems to us that Dr. Baily's position is well taken. That the formal validation of *Carinifex* Binney, 1865, as a generic name and the specific name *newberryi* Lea, 1858, as published in the binominal combination *Planorbis newberryi*, will add to nomenclatorial stability and help to avoid confusion.

13. No objection received : No objection to the action proposed in this case was received from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

14. Issue of Voting Paper V.P.(55)10 : On 5th August 1955, a Voting Paper (V.P.(55)10) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic name *Carinifex* Binney, 1865, and associated matters as set out in paragraph 4 on pp. 327—328 of Volume 9 of the *Bulletin of Zoological Nomenclature*" [i.e. in the paragraph so numbered in the application reproduced in the first paragraph of the present *Opinion*].

15. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 5th November 1955.

16. Particulars of the Voting on Voting Paper V.P.(55)10 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)10 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Riley ; Vokes ; Stoll ;
Hering ; Bradley (J.C.) ; Lemche ; Prantl ; Hankó ;
Mayr ; do Amaral ; Esaki ; Kühnelt ; Dymond ;
Key ; Mertens ; Bonnet ; Hemming ; Jaczewski ;
Miller ; Sylvester-Bradley ; Cabrera ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned, two (2) :*

Boschma¹ ; Tortonese.¹

17. Declaration of Result of Vote : On 6th November 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55)10, signed a Certificate that the Votes cast were as set out in paragraph 16 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

¹ After the close of the Prescribed Voting Period affirmative votes were received from Commissioner Boschma and from Commissioner Tortonese.

18. Preparation of the Ruling given in the present "Opinion" :

On 18th May 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)10.

19. Original References : The following are the original references for the names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Carinifex Binney (W.G.), [1863], *Syn. Spec. Air-breathing Moll. N. Amer.* : [11]

Carinifex Binney (W.G.), 1865, *Smithson. misc. Coll.* **143** (Pt. 2) : 74—75

Carnifex Keep, 1893, *West Coast Shells* (ed. of 1893) : 116

Megastropha Walker, 1918, *Univ. Michigan Publ.* No. **6** : 106, 207

Megasystropha Lea, 1864, *Proc. Acad. nat. Sci. Philad.* **16** : 5

newberryi, *Planorbis*, Lea, 1858, *Proc. Acad. nat. Sci. Philad.* **10** : 91

20. The following is the reference for the selection of the type species for the genus *Carinifex* Binney, 1865, specified in the Ruling given in the present *Opinion* : Fischer (P.), 1883, *Man. Conchyliol.* **1** : 508.

21. Family-Group-Name Aspect : The applicant has reported that the generic name *Carinifex* Binney has not been taken as the basis for a family-group name.

22. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is

accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

23. The present *Opinion* shall be known as *Opinion* Four Hundred and Thirty-Two (432) of the International Commission on Zoological Nomenclature.

DONE in London, this Eighteenth day of May, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

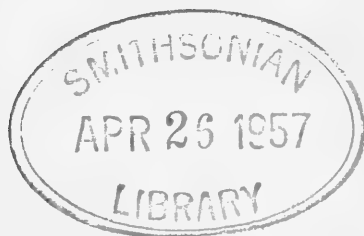
FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 17. Pp. 393—402

OPINION 433

Use of the Plenary Powers to secure that the generic name
Discias Rathbun, 1902 (Class Crustacea, Order Decapoda)
shall be the oldest available name for the genus concerned



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 433

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*)
(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(*Arranged in order of precedence by reference to date of election or of most recent re-election as prescribed by the International Congress of Zoology*)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(1st January 1947)

Senor Dr. Angel CABRERA (*La Plata, Argentina*) (27th July 1948)

Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

Dr. Henning LEMCHE (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) (27th July 1948)

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

Professor Pierre BONNET (*Université de Toulouse, France*) (9th June 1950)

Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)

Professor Erich Martin HERING (*Zoologisches Museum der Humboldt-Universität zu Berlin, Germany*) (5th June 1950)

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*) (12th August 1953) (*Vice President*)

Professor J. R. DYMOND (*University of Toronto, Toronto, Canada*) (12th August 1953)

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953) (*President*)

Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*)
(12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)
(12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*)
(29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

Professor Dr. Wilhelm KÜHNELT (*Zoologisches Institut der Universität, Vienna, Austria*)
(6th November 1954)

Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor ENRICO TORTONESE (*Museo di Storia Naturale "G. Doria," Genova, Italy*)
(16th December 1954)

OPINION 433

USE OF THE PLENARY POWERS TO SECURE THAT THE
GENERIC NAME "DISCIAS" RATHBUN, 1902
(CLASS CRUSTACEA, ORDER DECAPODA) SHALL
BE THE OLDEST AVAILABLE NAME FOR
THE GENUS CONCERNED

RULING :—(1) Under the Plenary Powers the generic name *Anisocaris* Ortmann, 1893, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1029 :—*Discias* Rathbun, 1902 (gender : masculine) (type species, by monotypy : *Discias serrifer* Rathbun, 1902) (Class Crustacea, Order Decapoda).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 1049 :—*serrifer* Rathbun, 1902, as published in the combination *Discias serrifer* (specific name of type species of *Discias* Rathbun, 1902).

(4) The under-mentioned generic name is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name No. 744 :—*Anisocaris* Ortmann, 1893, as suppressed under the Plenary Powers under (1) above.

(5) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name No. 92 :—DISCIADIDAE (correction of DISCIDAE) Rathbun, 1902 (type genus : *Discias* Rathbun, 1902) (first published in correct form, as DISCIADIDAE by Kemp (1920)).

(6) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Nos. 77 and 78 respectively :—

- (a) DISCIDAE Rathbun, 1902 (type genus : *Discias* Rathbun, 1902) (an Invalid Original Spelling for DISCIADIDAE) ;
- (b) DISCIIDAE Lebour, 1949 (type genus : *Discias* Rathbun, 1902) (an Erroneous Subsequent Spelling for DISCIADIDAE).

I. THE STATEMENT OF THE CASE

On 23rd September 1954, Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) submitted to the International Commission on Zoological Nomenclature the following application for the use of the Plenary Powers to secure that the generic name *Discias* Rathbun, 1902 (Class Crustacea, Order Decapoda) should become the oldest available name for the genus commonly so known through the suppression of the generic name *Anisocaris* Ortmann, 1893, which, as Dr. Holthuis explained, had been shown by later workers to be based upon the larva of a species of *Discias* :—

**Proposed use of the Plenary Powers to validate the generic name
“ *Discias* ” Rathbun, 1902 (Class Crustacea, Order Decapoda)**

By L. B. HOLTHUIS

(*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

In 1902 Miss M. J. Rathbun (*Proc. Wash. Acad. Sci.* 4 : 290) described a genus *Discias* from the Galapagos Islands and made it the

type of a new family that she named DISCIDAE, but that at present more correctly is generally called DISCIADIDAE. After the original publication of this name by Rathbun, four more species of the genus were discovered, two in the Atlantic, and two in the Indo-West-Pacific region. Though the published records of these animals are rather few (because of their small size they probably have often been overlooked), the genus is well known to carcinologists because of its very peculiar features.

2. In 1893 Ortmann (*Ergebn. Plankton Exped.* 2(Gb) : 74) described from the Atlantic Ocean a larval Macruran, which he named *Anisocaris dromedarius*, erecting a monotypic new genus for it. Gurney's (1939, *Ann. Mag. nat. Hist.* (11) 3 : 388—393) and Lebour's (1941, *J. linn. Soc. Lond.* (Zool.) 41 : 95—102) researches on larval Decapoda made it clear that *Anisocaris dromedarius* Ortmann, 1893, is the larva of a species of *Discias* Rathbun, 1902. A strict application of the International Rules of Zoological Nomenclature would require that the generic name *Discias* should be replaced by that of *Anisocaris*. The identity of the species *Anisocaris dromedarius* is not known, it may be the larva of either of the two Atlantic *Discias* species, but might as well be the larva of a species of which the adult form is still unknown.

3. In view of the fact (1) that the name *Discias* has become firmly established in carcinological literature, (2) that the name *Anisocaris* has hardly ever been used, and has never been employed for adult specimens, and (3) that it is undesirable that the family DISCIADIDAE should not contain a genus bearing the name *Discias*, the International Commission on Zoological Nomenclature is hereby asked :—

(1) to use its Plenary Powers :—

(a) to suppress for the purposes of the Law of Priority, but not for those of the Law of Homonymy the generic name *Anisocaris* Ortmann, 1893 (*Ergebn. Plankton Exped.* 2 (Gb) : 72, 74) (type species, by monotypy : *Anisocaris dromedarius* Ortmann, 1893, *Ergebn. Plankton Exped.* 2 (Gb) : 74) ;

(b) to validate the generic name *Discias* Rathbun, 1902 (*Proc. Wash. Acad. Sci.*, 4 : 290) (type species, by monotypy : *Discias serrifer* Rathbun, 1902, *Proc. Wash. Acad. Sci.*, 4 : 290) (gender : masculine) ;

(2) to place on the *Official List of Generic Names in Zoology* the name *Discias* Rathbun, 1902, as validated under (1)(b) above ;

(3) to place on the *Official Index of Rejected and Invalid Generic Names in Zoology* the name *Anisocaris* Ortmann, 1893, as suppressed under (1)(a) above ;

- (4) to place on the *Official List of Specific Names in Zoology* the specific name *serrifer* Rathbun, 1902, as published in the combination *Discias serrifer* ;
- (5) to place on the *Official List of Family-Group Names in Zoology* the name DISCIADIDAE (correction by Kemp (1920, *Rec. ind. Mus.* **19** : 137, 138) of DISCIDAE) Rathbun, 1902 (*Proc. Wash. Acad. Sci.* **4** : 289) (type genus : *Discias* Rathbun, 1902) ;
- (6) to place on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* the under-mentioned names :—
- (a) DISCIDAE Rathbun, 1902 (an Invalid Original Spelling for DISCIADIDAE) ;
- (b) DISCIIDAE Lebour, 1949 (*Proc. zool. Soc. Lond.* **118**(4) : 1107) (an Erroneous Subsequent Spelling for DISCIADIDAE).

II. THE SUBSEQUENT HISTORY OF THE CASE

2. Registration of the present application : Upon the receipt of Dr. Holthuis's application the question of the use by the Commission of its Plenary Powers to secure that the generic name *Discias* Rathbun, 1902, should be the oldest available name for the genus concerned was allotted the Registered Number Z.N.(S.) 829.

3. Publication of the present application : The present application was sent to the printer on 13th October 1954 and published on 30th December in the same year in Part 11 of Volume 9 of the *Bulletin of Zoological Nomenclature* (Holthuis, 1954, *Bull. zool. Nomencl.* **9** : 332—333).

4. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 30th December 1954 (a) in Part 11 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Holthuis's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications.

5. No objection received : The publication of Dr. Holthuis's application and the accompanying issue of the Prescribed and other Public Notices elicited no objection to the action proposed to be taken in the present case.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

6. Issue of Voting Paper V.P.(55)11 : On 5th August 1955 a Voting Paper (V.P.(55)11) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic name *Discias* Rathbun, 1902, and associated matters, as set out in Points (1) to (6) in paragraph 3 on pages 332 and 333 in Volume 9 of the *Bulletin of Zoological Nomenclature*" [i.e. in the points so numbered in paragraph 3 of the paper reproduced in the first paragraph of the present *Opinion*].

7. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 5th November 1955.

8. Particulars of the Voting on Voting Paper V.P.(55)11 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)11 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Riley ; Vokes ; Stoll ; Hering ; Bradley (J.C.) ; Lemche ; Prantl ; Hankó ; Mayr ; do Amaral ; Esaki ; Kühnelt ; Dymond ; Key ; Mertens ; Bonnet ; Hemming ; Miller ; Sylvester-Bradley ; Cabrera ; Jaczewski ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned, two (2) :*

Boschma¹ ; Tortonese¹.

9. Declaration of Result of Vote : On 6th November 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55)11, signed a Certificate that the Votes cast were as set out in paragraph 8 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

¹ After the close of the Prescribed Voting Period late affirmative votes were received from Commissioner Boschma and Commissioner Tortonese.

10. Preparation of the Ruling given in the present "Opinion" :

On 18th May 1956, Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(55)11.

11. Original References : The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Anisocaris Ortmann, 1893, *Ergebn. Plankton Exped.* **2**(Gb) : 72, 74

Discias Rathbun, 1902, *Proc. Wash. Acad. Sci.* **4** : 290

serrifer, *Discias*, Rathbun, 1902, *Proc. Wash. Acad. Sci.* **4** : 290

12. The following are the original references for the family-group names placed on the *Official List* or on the *Official Index* established for recording the names of family-group taxa :—

DISCIADIDAE Kemp, 1920, *Rec. ind. Mus.* **19** : 137, 138 (type genus : *Discias* Rathbun, 1902) (correction of DISCIDAE Rathbun, 1902)

DISCIDAE Rathbun, 1902, *Proc. Wash. Acad. Sci.* **4** : 289 (type genus *Discias* Rathbun, 1902)

DISCIDAE Lebour, 1949, *Proc. zool. Soc. Lond.* **118**(4) : 1107 (type genus : *Discias* Rathbun, 1902)

13. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

14. The present *Opinion* shall be known as *Opinion* Four Hundred and Thirty-Three (433) of the International Commission on Zoological Nomenclature.

DONE in London, this Eighteenth day of May, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 18. Pp. 403—424

OPINION 434

Use of the Plenary Powers to secure that the names *Upogebia* [Leach], [1814], and *Processa* Leach, [1815], shall be the oldest available names for the genera in question and that the family-group names based upon those generic names shall be the oldest available names for the family-group taxa concerned

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Issued 5th December, 1956



INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 434

A. The Officers of the Commission

Honorary Life President : Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts., England*)

President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(*Arranged in order of precedence by reference to date of election or of most recent re-election as prescribed by the International Congress of Zoology*)

Professor H. BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (1st January 1947)

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Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

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Mr. Norman Denbigh RILEY (*British Museum (Natural History), London*) (9th June 1950)

Professor Tadeusz JACZEWSKI (*Institute of Zoology, Polish Academy of Sciences, Warsaw, Poland*) (15th June 1950)

Professor Robert MERTENS (*Natur-Museum u. Forschungs-Institut Senckenberg, Frankfurt a.M., Germany*) (5th July 1950)

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Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*) (12th August 1953) (*President*)

Professor Harold E. VOKES (*Johns Hopkins University, Baltimore, Maryland, U.S.A.*) (12th August 1953)

Professor Béla HANKÓ (*Mezőgazdasági Múzeum, Budapest, Hungary*) (12th August 1953)

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)

Mr. P. C. SYLVESTER-BRADLEY (*Sheffield University, Sheffield, England*) (12th August 1953)

Dr. L. B. HOLTHUIS (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) (12th August 1953)

Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)

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Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

OPINION 434

USE OF THE PLENARY POWERS TO SECURE THAT THE NAMES "UPOGEBIA" [LEACH], [1814], AND "PROCESSA" LEACH, [1815], SHALL BE THE OLDEST AVAILABLE NAMES FOR THE GENERA IN QUESTION AND THAT THE FAMILY-GROUP NAMES BASED UPON THOSE GENERIC NAMES SHALL BE THE OLDEST AVAILABLE NAMES FOR THE FAMILY-GROUP TAXA CONCERNED

RULING :—(1) The following action is hereby taken under the Plenary Powers, namely :—

(a) The under-mentioned generic names are hereby suppressed for purposes of the Law of Priority but not for those of the Law of Homonymy :—

(i) *Gerbios* Bosc, 1813 ;

(ii) *Thalassalpes* Bosc, 1813 ;

(b) The under-mentioned family-group names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :—

(i) NIKIDAE Bate, 1888 (type genus : *Nika* Risso, 1816) ;

(ii) HECTARTHROPIDAE Bate, 1888 (type genus : *Hectarthropus* Bate, 1888) ;

(iii) GEBIIDAE (correction of GEBIDAE) Dana, 1852 (type genus : *Gebia* Leach, 1815).

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Callianassa* [Leach], [1814] (gender : feminine) (type species, by monotypy : *Cancer (Astacus) subterraneus* Montagu, 1808) (Name No. 1030) ;
- (b) *Galathea* Fabricius, 1793 (gender : feminine) (type species, by selection by Latreille (1810) : *Cancer strigosus* Linnaeus, 1761) (Name No. 1031) ;
- (c) *Processa* Leach, [1815] (gender : feminine) (type species, by monotypy : *Processa canaliculata* Leach, [1815]) (Name No. 1032) ;
- (d) *Thalassina* Latreille, 1806 (gender : feminine) (type species, by monotypy : *Thalassina scorpionides* Latreille, 1806) (Name No. 1033) ;
- (e) *Upogebia* [Leach], [1814] (gender : feminine) (type species, by monotypy : *Cancer (Astacus) stellatus* Montagu, 1808) (Name No. 1034).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers severally specified below :—

- (a) *subterraneus* Montagu, 1808, as published in the combination *Cancer (Astacus) subterraneus* (specific name of type species of *Callianassa* [Leach], [1814]) (Name No. 1050) ;
- (b) *strigosus* Linnaeus, 1761, as published in the combination *Cancer strigosus* (specific name of type species of *Galathea* Fabricius, 1793) (Name No. 1051) ;
- (c) *canaliculata* Leach, [1815], as published in the combination *Processa canaliculata* (specific name of type species of *Processa* Leach, [1815]) (Name No. 1052) ;

- (d) *stellatus* Montagu, 1808, as published in the combination *Cancer (Astacus) stellatus* (specific name of type species of *Upogebia* [Leach], [1814]) (Name No. 1053) ;
- (e) *anomalus* Herbst, 1804, as published in the combination *Cancer (Astacus) anomalus* (Name No. 1054).

(4) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Calypso* Risso, 1816 (a junior objective synonym of *Melia* Bosc, 1813) (Name No. 745) ;
- (b) *Egeon* Bosc, 1813 (a junior homonym of *Egeon* de Montfort, 1808) (Name No. 746) ;
- (c) *Egeon* Risso, 1816 (a junior homonym of *Egeon* de Montfort, 1808) ; (Name No. 747) ;
- (d) *Gebia* Leach, 1815 (a junior objective synonym of *Upogebia* [Leach], [1814]) (Name No. 748) ;
- (e) *Gerbios* Bosc, 1813, as suppressed under the Plenary Powers under (1)(a)(i) above (Name No. 749) ;
- (f) *Janira* Risso, 1816 (a junior homonym of *Janira* [Leach], [1814], and a junior objective synonym of *Melia* Bosc, 1813) (Name No. 750) ;
- (g) *Thalassalpes* Bosc, 1813, as suppressed under the Plenary Powers under (1)(a)(ii) above (Name No. 751).

(5) The under-mentioned family-group names are hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) CALLIANASSIDAE Dana, 1852 (type genus : *Callianassa* [Leach], [1814]) (Name No. 93) ;

- (b) GALATHEIDAE (correction of GALATEADAE) Samouelle, 1819 (first published in correct form as GALATHEIDAE by White, 1847) (type genus : *Galathea* Fabricius, 1793) (Name No. 94) ;
 - (c) PROCESSIDAE Ortmann, 1896 (type genus : *Processa* Leach, [1815]) (Name No. 95) ;
 - (d) THALASSINIDAE (correction of THALASSINIDES) Latreille, 1831 (first published in correct form as THALASSINIDAE by White, 1847) (type genus : *Thalassina* Latreille, 1806) (Name No. 96) ;
 - (e) UPOGEBIINAE Borradaile, 1903 (type genus : *Upogebia* [Leach], [1814]) (Name No. 97).
- (6) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Numbers severally specified below :—
- (a) GALATEADAE Samouelle, 1819 (type genus : *Galathea* Fabricius, 1793) (an Invalid Original Spelling for GALATHEIDAE) (Name No. 79) ;
 - (b) GEBIIDAE (correction of GEBIDAE) Dana, 1852 (first published in correct form as GEBIIDAE by Miers, 1876) (type genus : *Gebia* Leach, 1815), as suppressed under the Plenary Powers under (1)(b)(iii) above (Name No. 80) ;
 - (c) GEBIDAE Dana, 1852 (type genus : *Gebia* Leach, 1815) (an Invalid Original Spelling for GEBIIDAE, a name suppressed under the Plenary Powers under (1)(b)(iii) above (Name No. 81) ;
 - (d) HECTARTHROPIDAE Bate, 1888 (type genus : *Hectarthropus* Bate, 1888), as suppressed under the Plenary Powers under (1)(b)(ii) above (Name No. 82) ;

- (e) NIKIDAE Bate, 1888 (type genus : *Nika* Risso, 1816), as suppressed under the Plenary Powers under (1)(b)(i) above (Name No. 83) ;
- (f) THALASSINIDES Latreille, 1831 (type genus : *Thalassina* Latreille, 1806) (an Invalid Original Spelling for THALASSINIDAE) (Name No. 84).

I. THE STATEMENT OF THE CASE

On 7th May 1954, Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) submitted to the International Commission on Zoological Nomenclature the following application designed to secure that the generic names *Processa* Leach, [1815], and *Upogebia* [Leach], [1814] (Class Crustacea, Order Decapoda) should be the oldest available names for the genera commonly so known :—

**Proposed use of the Plenary Powers to validate the generic names
“Upogebia” [Leach], [1814], and “Processa” Leach, [1815]
(Class Crustacea, Order Decapoda)**

By L. B. HOLTHUIS

(*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers in order to suppress two long-forgotten generic names which are senior synonyms of two well-known names that have been, and still are, widely used in the literature dealing with macrurous Decapod Crustacea.

2. The original references for the generic names cited in the present application are the following :—

- Callianassa* [Leach], [1814], Brewster's *Edinburgh Ency.* 7(2) : 400 (gender : feminine) (type species, by monotypy : *Cancer (Astacus) subterraneus* Montagu, 1808 (*Trans. linn. Soc. Lond.* 9 : 88)) ;
- Calypso* Risso, 1816, *Hist. nat. Crust. Nice* : 74 (gender : feminine) (type species, by monotypy : *Calypso periculosa* Risso, 1816, *Hist. nat. Crust. Nice* : 74 (= *Cancer strigosus* Linnaeus, 1761, *Fauna svec.* (ed. 2) : 495)) ;
- Egeon* Bosc, 1813, *Nouv. Bull. Sci. Soc. philomat. Paris* 3(66) : 233 (gender : masculine) (type species, by monotypy : *Cancer cataphractus* Olivi, 1792, *Zool. adriat.* : 50) (an invalid junior homonym of *Egeon* de Montfort, 1808 (*Conchyl. syst.* 1 : 166)) ;
- Egeon* Risso, 1816, *Hist. nat. Crust. Nice* : 99 (gender : masculine) (type species, by monotypy : *Egeon loricatus* Risso, 1816, *Hist. nat. Crust. Nice* : 100 (= *Cancer cataphractus* Olivi, 1792, *Zool. adriat.* 50)) (an invalid junior homonym of *Egeon* de Montfort, 1808) ;
- Galathea* Fabricius, 1793, *Ent. syst.* 2 : 471 (gender : feminine) (type species, selected by Latreille, 1810 (*Consid. gén. Crust. Arachn. Ins.* : 422) : *Cancer strigosus* Linnaeus, 1761, *Fauna svec.* (ed. 2) : 495) ;
- Gebia* Leach, 1815, *Trans. linn. Soc. Lond.* 11 : 342 (gender : feminine) (type species, selected by Fowler, 1912 (*Ann. Rep. New Jersey State Mus.* 1911 : 361) : *Cancer (Astacus) stellatus* Montagu, 1808, *Trans. linn. Soc. Lond.* 9 : 89) (a junior objective synonym of *Upogebia* [Leach], [1814]) ;
- Gebios* Risso, 1822, *J. Phys. Chim. Hist. nat. Arts, Paris* 95 : 243 (gender : feminine) (type species, by monotypy : *Gebios davianus* Risso, 1822, *J. Phys. Chim. Hist. nat. Arts, Paris* 95 : 243 (= *Astacus tyrrhenus* Petagna, 1792, *Institut. entom.* : 418)) ;
- Gerbios* Bosc, 1813, *Nouv. Bull. Sci. Soc. philomat. Paris* 3(66) : 233 (gender : feminine) (type species, by present selection : *Thalassina littoralis* Risso, 1816, *Hist. nat. Crust. Nice* : 76 (= *Astacus pusillus* Petagna, 1792, *Institut. entom.* : 418)) ;
- Janira* Risso, 1816, *Hist. nat. Crust. Nice* : 175 (gender : feminine) (substitute name for *Calypso* Risso, 1816, *Hist. nat. Crust. Nice* : 74) (an invalid junior homonym of *Janira* [Leach], [1814]) ;
- Melia* Bosc, 1813, *Nouv. Bull. Sci. Soc. philomat. Paris* 3(66) : 233 (gender : feminine) (type species, by present selection : *Calypso periculosa* Risso, 1816, *Hist. nat. Crust. Nice* : 74 (= *Cancer strigosus* Linnaeus, 1761, *Fauna svec.* (ed. 2) : 495)) ;

Nika Risso, 1816, *Hist. nat. Crust. Nice* : 84 (gender : feminine) (type species, by selection by Milne Edwards (H.), 1837 (Cuvier's *Règne anim.* ed. 4 (Disciples' Ed.) 18 : pl. 52 fig. 1) : *Nika edulis* Risso, 1816, *Hist. nat. Crust. Nice* : 85) ;

Processa Leach, [1815], *Malac. podophth. Brit.* (4) : explanation of pl. 41 (gender : feminine) (type species, by monotypy : *Processa canaliculata* Leach, [1815], *Malac. podophth. Brit.* (4) : explanation of pl. 41) ;

Thalassalpes Bosc, 1813, *Nouv. Bull. Sci. Soc. philomat. Paris* 3(66) : 233 (gender : masculine) (type species, by present selection : *Nika edulis* Risso, 1816, *Hist. nat. Crust. Nice* : 85) ;

Thalassina Latreille, 1806, *Gen. Crust. Ins.* 1 : 51 (gender : feminine) (type species, by monotypy : *Thalassina scorpionides* Latreille, 1806, *Gen. Crust. Ins.* 1 : 52 (= *Cancer (Astacus) anomalus* Herbst, 1804, *Vers. Naturgesch. Krabben Krebse* 3(4) : 45)) ;

Upogebia [Leach], [1814], Brewster's *Edinburgh Ency.* 7(2) : 400 (gender : feminine) (type species, by monotypy : *Cancer (Astacus) stellatus* Montagu, 1808, *Trans. linn. Soc. Lond.* 9 : 89).

3. In March 1813 (in *Nouv. Bull. Sci. Soc. philomat. Paris* 3(66) : 233, 234) a paper was published, entitled "Essai historique sur les Crustacés de la mer de Nice, par M. Rizzo. (Extrait d'un rapport fait à l'Institut par M. Bosc.)". As is shown by its title this publication is an extract of a report by L. A. G. Bosc on a manuscript submitted by A. Risso (the spelling Rizzo is incorrect) to the Institut de France. Bosc must therefore be regarded as the author of the foregoing publication. In this paper four new genera (*Gerbios*, *Melia*, *Thalassalpes*, and *Egeon*) are mentioned and briefly characterised. Though the genera evidently were originally proposed by Risso in his manuscript, the brief characterisations (which hardly can be given the name of definitions) are clearly made by Bosc in his own words ; there is no indication whatsoever that they have been made by Risso. Though it does not seem very fair, we must, I believe, treat Bosc as the author of these names. That this question is difficult is shown by the way in which the authorship of these four generic names is treated in Neave's *Nomenclator Zoologicus*, where the author of two of the names (*Egeon* and *Thalassalpes*) is given as "Risso", of one (*Gerbios*) as "Bosc", while of the fourth (*Melia*) the author is indicated as "Bosc in Risso".

4. In 1816 Risso published his manuscript referred to above as a book under the title *Histoire naturelle des Crustacés des environs de Nice*. In this book the author used only one of the four generic names mentioned by Bosc (1813), namely, *Egeon*, which is treated by Risso as a name for a new genus. The name *Calypso* was used by Risso

instead of that of *Melia*, probably because, as Bosc had pointed out in his 1813 paper, the name *Melia* has already been used for a genus of plants ; in an *Erratum* in his 1816 publication Risso substituted the name *Janira* for *Calypso*, because the latter name “ ayant déjà employé par les Naturalistes ” (again for a genus of plants). Bosc's (1813) remark that *Gerbios* “ paraît infiniment se rapprocher des thalassines de Latreille ” probably made Risso (1816) abandon his name *Gerbios* and use *Thalassina* Latreille, 1806, instead. For unknown reasons Risso (1816) substituted the name *Nika* for that of *Thalassalpes*. It is evident that Risso did not consider the four generic names mentioned in Bosc's (1813) paper as validly published. In any case he entirely ignored Bosc's publication.

5. The name *Egeon* Bosc, 1813, as well as *Egeon* Risso, 1816, is invalid, since it is preoccupied by the older generic name *Egeon* de Montfort, 1808. The names *Melia* Bosc, 1813, *Calypso* Risso, 1816, and *Janira* Risso, 1816, are objective synonyms of one another. They are based on an old figure of Rondelet's which represents *Galathea strigosa* (L.) ; Bosc's and Risso's three generic names thus are junior (subjective) synonyms of *Galathea* Fabricius, 1793, a genus of which *Galathea strigosa* is the type species.

6. Bosc's (1813) two other generic names *Thalassalpes* and *Gerbios*, however, prove to be the oldest available names for the genera concerned. *Thalassalpes* was very briefly characterised by Bosc : “ n' a de pincés qu' à une des pattes antérieures ”. This single character, however, is sufficient to distinguish the genus from all other European genera. Bosc does not name any species as belonging in his genus *Thalassalpes*, but since the latter is obviously identical with *Nika* Risso, 1816, the type species of the latter genus, *Nika edulis* Risso, 1816, should be regarded also as the type species of the former, and it is so selected here. In carcinological literature two different names have been regularly used for this genus. These two names are *Processa* Leach, [1815], and *Nika* Risso, 1816. The former name has been used by at least 64 authors (by 44 of these in papers published since 1914), the latter name by at least 114 authors (by about 22 of these in papers published since 1914). The name *Processa*, being the older of the two, has been generally accepted in modern literature and during the last forty years has been used by all specialists in the group. The name *Thalassalpes* Bosc, on the other hand, has been completely overlooked, and I do not know of a single author having used it since the original publication by Bosc in 1813. A substitution of the name *Thalassalpes* for *Processa* would greatly upset carcinological nomenclature and a suppression of the former name is, in my opinion, fully justified.

7. The case of the name *Gerbios* is very similar to that of *Thalassalpes*. Bosc's description of the genus *Gerbios* is very short, but makes it

sufficiently clear that it is based on the species that Risso later (in 1816) described as *Thalassina littoralis*, and which at present is known as *Upogebia pusilla* (Petagna, 1792). The generic name *Gerbios* Bosc, 1813, thus becomes a senior (subjective) synonym of the name *Upogebia* [Leach], [1814]. For the genus in question several names have been used: (1) The oldest available name, *Gerbios* Bosc, 1813, as far as is known to me, has been used only by the original author. (2) The name *Upogebia* [Leach], [1814], at present is currently adopted in carcinological literature. (3) The name *Gebia* Leach, 1815, a junior objective synonym of *Upogebia* [Leach], [1814], during the previous century was practically exclusively used to indicate the present genus; later it was replaced more and more by the name *Upogebia*, while at present it is employed by very few authors only. It was Stebbing (1893, *Hist. Crust.* : 185) who first pointed out that the name *Upogebia* has priority over *Gebia*, and he consequently adopted the former of the two names. In this he was almost immediately followed by the majority of carcinologists and at present the name *Upogebia* has become firmly established. Judging by an unpublished bibliography which I have been preparing during the last few years, at least 100 authors used the name *Gebia* before 1900, and less than 5 authors during that period employed the name *Upogebia*. After 1920 more than 80 authors have used the name *Upogebia*, and about 15 that of *Gebia* (practically none of the latter being a specialist in Crustacea). In my opinion, stability of carcinological nomenclature would be greatly furthered by the suppression of the practically unknown generic name *Gerbios* and by the validation of the widely used name *Upogebia*.

8. The position of the generic name *Gebios* Risso, 1822, which generally is considered to be synonymous with *Upogebia* [Leach] should also be discussed here. Risso (1822 : 243) when using the name *Gebios* for the first time, included two species in it. One of these is the new species *Gebios davianus*, the other was not cited by name, but it was evidently *Thalassina littoralis* Risso, 1816, since it was referred to as the species which in Risso's *Hist. nat. Crust. Nice* (1816) had been placed in the genus *Thalassina* Latreille. As *Gebios daviana* Risso, 1822, was the only nominal species assigned to *Gebios* in the original publication of that name, it becomes its type species by monotypy. Since *Gebios daviana* doubtless is identical with the species known at present under the name *Callianassa tyrrhena* (Petagna, 1792), the generic name *Gebios* Risso, 1822, becomes a junior subjective synonym of the name *Callianassa* [Leach], [1814]. It is possible that in using the name *Gebios*, Risso actually intended to restore the old genus *Gerbios*, but this cannot be proved.

9. The only two names that form a menace to the stability of the nomenclature of the taxa discussed in the present application thus are *Gerbios* Bosc, 1813, and *Thalassalpes* Bosc, 1813, for which reason their suppression is requested.

10. The present opportunity is used to propose the insertion in the *Official List of Generic Names in Zoology* of the generic names *Callianassa*, *Galathea* and *Thalassina* mentioned above. I have convinced myself that these three names are available in so far that they are not junior homonyms of other generic names in zoology. Furthermore, they have been in general use in carcinological literature almost from the moment that they were first published, and their position has remained unchallenged throughout. All three are the names of type genera of well-known families and two of them (*Galathea* and *Thalassina*) are even the type genera of supra-familial groups. The insertion of these names in the *Official List* is therefore fully justified.

11. The genus *Upogebia* [Leach], [1814], is currently considered the type of the sub-family UPOGEBIINAE Borradaile, 1903. An older name for this sub-family is GEBIINAE (correction of GEBIDAE) Dana, 1852. As the name UPOGEBIINAE is at present generally used, while its older objective synonym is not accepted, it seems advisable to me to place the name UPOGEBIINAE on the *Official List* and GEBIINAE on the *Official Index of Family-Group Names*. A similar case is offered by the family name PROCESSIDAE Ortmann, 1896. This name possesses two older, but subjective, synonyms, namely NIKIDAE Bate, 1888 (*Rep. Voy. Challenger, Zool.* 24 : xii, xli, 480, 503) (type genus *Nika* Risso, 1816 (*Hist. nat. Crust. Nice* : 84)) and HECTARTHROPIDAE Bate, 1888 (*Rep. Voy. Challenger, Zool.* 24 : 481, 883) (type genus *Hectarthropus* Bate, 1888 (*Rep. Voy. Challenger, Zool.* 24 : 889)). The genera *Nika* Risso, 1816, and *Hectarthropus* Bate, 1888, are subjective junior synonyms of *Processa* Leach, [1815]. As the name PROCESSIDAE is widely used, while those of NIKIDAE and HECTARTHROPIDAE have been almost completely forgotten, I consider that it is advisable to give the name PROCESSIDAE Ortmann, 1896, priority over the names NIKIDAE Bate, 1888 and HECTARTHROPIDAE Bate, 1888, notwithstanding the fact that the latter are older. For this reason the insertion in the *Official List of Family-Group Names in Zoology* of the name PROCESSIDAE has been requested.

12. The concrete proposals which I now submit for consideration are that the International Commission on Zoological Nomenclature should :—

(1) use its Plenary Powers :—

(a) to suppress the under-mentioned generic names for the purposes of the Law of Priority, but not for those of the Law of Homonymy :—

(i) *Gerbios* Bosc, 1813 ;

(ii) *Thalassalpes* Bosc, 1813 ;

(b) to validate the under-mentioned generic names :—

- (i) *Upogebia* [Leach], [1814] ;
- (ii) *Processa* Leach, [1815] ;

(2) place on the *Official List of Generic Names in Zoology* the under-mentioned generic names with the type species and gender specified in paragraph 2 of the present application :—

- (a) *Callianassa* [Leach], [1814] ;
- (b) *Galathea* Fabricius, 1793 ;
- (c) *Processa* Leach, [1815], as validated under (1)(b)(ii) above ;
- (d) *Thalassina* Latreille, 1806 ;
- (e) *Upogebia* [Leach], [1814], as validated under (1)(b)(i) above ;

(3) place on the *Official Index of Rejected and Invalid Generic Names in Zoology* the under-mentioned generic names :—

- (a) *Calypso* Risso, 1816 (an objective junior synonym of *Melia* Bosc, 1813) ;
- (b) *Egeon* Bosc, 1813 (a junior homonym of *Egeon* de Montfort, 1808) ;
- (c) *Egeon* Risso, 1816 (a junior homonym of *Egeon* de Montfort, 1808) ;
- (d) *Gebia* Leach, 1815 (a junior objective synonym of *Upogebia* [Leach], [1814]) ;
- (e) *Gerbios* Bosc, 1813, as suppressed under (1)(a)(i) above ;
- (f) *Janira* Risso, 1816 (a junior objective synonym of *Melia* Bosc, 1813; and a junior homonym of *Janira* [Leach], [1814]) ;
- (g) *Thalassalpes* Bosc, 1813, as suppressed under (1)(a)(ii) above ;

(4) place on the *Official List of Specific Names in Zoology* the under-mentioned specific names :—

- (a) *anomalus* Herbst, 1804, as published in the combination *Cancer (Astacus) anomalus* ;
- (b) *canaliculata* Leach, [1815], as published in the combination *Processa canaliculata* ;
- (c) *stellatus* Montagu, 1808, as published in the combination *Cancer (Astacus) stellatus* ;

- (d) *strigosus* Linnaeus, 1761, as published in the combination *Cancer strigosus* ;
- (e) *subterraneus* Montagu, 1808, as published in the combination *Cancer (Astacus) subterraneus* ;
- (5) place on the *Official List of Family-Group Names in Zoology* the under-mentioned family-group names :—
- (a) CALLIANASSIDAE Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 12, 14, 19 (type genus : *Callianassa* [Leach], [1814]) ;
- (b) GALATHEIDAE (correction by White, 1847 (*List Crust. Brit. Mus.* : 65) of GALATEADAE) Samouelle, 1819, *Entomologist's useful Compendium* : 92 (type genus : *Galathea* Fabricius, 1793) ;
- (c) PROCESSIDAE Ortmann, 1896, *Zool. Jb. Syst.* **9** : 415, 424 (type genus : *Processa* Leach, [1815]) ;
- (d) THALASSINIDAE (correction by White, 1847 (*List Crust. Brit. Mus.* : 70) of THALASSINIDES) Latreille, 1831, *Cours d'Entomol.* : 377 (type genus : *Thalassina* Latreille, 1806) ;
- (e) UPOGEBIINAE Borradaile, 1903, *Ann. Mag. nat. Hist.* (7) **12** : 542 (type genus : *Upogebia* [Leach], [1814]) ;
- (6) place on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* the undermentioned names :—
- (a) GALATEADAE Samouelle, 1819, *Entomologist's useful Compendium* : 92 (an Invalid Original Spelling for GALATHEIDAE) ;
- (b) GEBIIDAE (correction by Miers (1876, *Catal. Crust. New Zealand* : 70) of GEBIDAE) Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 12, 13, 19 (type genus : *Gebia* Leach, 1815) (a family-group name, the type species, *Cancer (Astacus) stellatus* Montagu, 1808, of which is also the type species of *Upogebia* [Leach], [1814] (a name proposed under (2)(e) above, to be placed on the *Official List of Generic Names in Zoology*), which is the type genus of the sub-family UPOGEBIINAE Borradaile, 1903, proposed, under (5)(e) above, to be placed on the *Official List of Family-Group Names in Zoology*) ;
- (c) GEBIDAE Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 12, 13, 19 (an Invalid Original Spelling of GEBIIDAE) ;
- (d) THALASSINIDES Latreille, 1831, *Cours d'Entomol.* : 377 (an Invalid Original Spelling for THALASSINIDAE).

2. Supplementary Application by Mr. Francis Hemming in relation to the family-group-name aspects of Dr. Holthuis's proposals : When in October 1954 arrangements were being made in the Office of the Commission for the despatch of Dr. Holthuis's application to the printer, Mr. Hemming, as Secretary, took the view that action by the Commission additional to that proposed by Dr. Holthuis would be required if, as Dr. Holthuis desired, the family-group names based respectively upon the generic names *Processa* Leach, [1815], and *Upogebia* [Leach], [1814], were to be preserved. Dr. Holthuis was not at that time available for consultation, having been granted Leave of Absence from his duties as a Member of the Commission while absent from Europe on an Expedition to Netherland New Guinea. In order not to delay the consideration of Dr. Holthuis's application, Mr. Hemming thereupon himself submitted the following supplementary application on the family-group-name implications of Dr. Holthuis's proposals :—

Proposed validation, under the Plenary Powers, of the family-group names "PROCESSIDAE" and "UPOGEBIINAE" (Class Crustacea, Order Decapoda)

By FRANCIS HEMMING, C.M.G., C.B.E.

(*Secretary to the International Commission on Zoological Nomenclature*)

The present application, which is concerned with the proposed validation of the family-group names PROCESSIDAE Ortmann, 1896, and UPOGEBIINAE Borradaile, 1903 (Class Crustacea, Order Decapoda), is in the nature of a supplement to the proposal by Dr. L. B. Holthuis (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) that these family-group names should be placed on the *Official List of Family-Group Names in Zoology*. It is concerned only with the question of the procedure required to give effect to Dr. Holthuis's proposal.

2. In a note on a similar problem which arises in connection with the family-group name XANTHINAE Dana, 1851 (Hemming, 1954, *Bull. zool. Nomencl.* **9** : 329—331) I have explained how, when the Fourteenth International Congress of Zoology, Copenhagen, 1953, decided to insert in the *Règles* a provision applying the priority principle to family-group names, it realised that, unless mitigated in some simple manner, this decision would be likely to give rise to undesirable name-changing. The Congress accordingly inserted in the *Règles* a provision under which, subject to compliance with a simple procedure, an author who considers that in any given case the application of

priority is "in conflict with current usage" may set aside priority in the case concerned (1953, *Copenhagen Decisions zool. Nomencl.* : 33, Decision 54(1)). Action so taken is liable to challenge and in any case does not become definitively valid for a period of two years. This procedure offers certain conveniences but it is not appropriate in cases where the question of a family-group name arises in connection with an application for a given generic name to be placed on the *Official List of Generic Names in Zoology*, for, under the Regulations governing the *Official Lists*, the Commission is required in such a case to take account also of the position at the family-group level. Accordingly, in such cases, it is necessary to have resort to the Plenary Powers procedure, in order to secure the desired stability in family-group nomenclature.

3. Dr. Holthuis has explained (Holthuis, 1954, *Bull. zool. Nomencl.* 9 : 338) that the well-known family name PROCESSIDAE Ortmann, 1896, is a junior subjective synonym both of NIKIDAE Bate, 1888, and of HECTARTHROPIDAE Bate, 1888, while the UPOGEBIINAE Borradaile, 1903, is a junior objective synonym of the family name GEBIDAE Dana, 1852. In each of these cases Dr. Holthuis proposes that, owing to the conflict of the principle of priority with current usage, the junior synonym currently in use should be accepted. For the reasons which have been explained in paragraph 2 above, this end can be attained in the present case only by the suppression of the senior synonyms under the Plenary Powers.

4. It is accordingly proposed that in the interest of maintaining current usage at the family-group-name level (as enjoined by the Copenhagen Congress) the International Commission should use its Plenary Powers to suppress the under-mentioned family-group names for the purposes of the Law of Priority but not for those of the Law of Homonymy :—(a) NIKIDAE Bate, 1888 (type genus : *Nika* Risso, 1816) ; (b) HECTARTHROPIDAE Bate, 1888 (type genus ; *Hectarthropus* Bate, 1888) ; (c) GEBIDAE Dana, 1852 (type genus : *Gebia* Leach, 1815). Dr. Holthuis has already asked that the name GEBIDAE Dana, 1852, be placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*. Similar action should now be taken as regards the two other names dealt with in the present application.

II. THE SUBSEQUENT HISTORY OF THE CASE

3. Registration of the present application : Upon the receipt of Dr. Holthuis's application the question of securing that the

generic names *Processa* Leach, [1815], and *Upogebia* [Leach], [1814], should be the oldest available names for the genera commonly so known was allotted the Registered Number Z.N.(S.) 830.

4. Publication of the present application : The present application, together with Mr. Hemming's supplementary application, was sent to the printer on 13th October 1954 and both papers were published on 30th December in the same year in Part 11 of Volume 9 of the *Bulletin of Zoological Nomenclature* (Holthuis, 1954, *Bull. zool. Nomencl.* 9 : 334—340 ; Hemming, 1954, *ibid.* 9 : 340—341).

5. Issue of Public Notices : Under the revised procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 51—56), Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case, including Mr. Hemming's supplementary application in regard thereto, was given on 30th December 1954 (a) in Part 11 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Holthuis's application and Mr. Hemming's supplementary proposals were published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications.

6. Support received from Dr. Julian Huxley (London) : The publication of Dr. Holthuis's application and Mr. Hemming's supplementary proposals elicited support for the action proposed from Dr. Julian Huxley (*London*) who on 28th January 1955 addressed to the Office of the Commission the following letter in which he intimated his support for the proposals submitted in this and in certain other applications which had recently been published in the *Bulletin of Zoological Nomenclature* :—

With reference to your notice in *Nature* last week, I write to say that I hope very much that the names *Dama*, *Formica rufa* and *Upogebia* will be validated as suggested, as any change would result in grave inconvenience to working biologists.

7. No objection received : No objection to the action proposed in the papers in regard to the present case submitted respectively by Dr. Holthuis and by Mr. Hemming was received from any source.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

8. Issue of Voting Paper V.P.(55)12 : On 5th August 1955 a Voting Paper (V.P.(55)12) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic names *Upogebia* [Leach], [1814], and *Processa* Leach, [1815], set out in Points (1) to (6) on pages 338—340 of Volume 9 of the *Bulletin of Zoological Nomenclature*" [i.e. in the Points numbered as above in paragraph 12 of the application by Dr. Holthuis reproduced in the first paragraph of the present *Opinion*] "subject to the modification of certain of the proposals relating to family-group names specified in paragraph 4 on page 341 of the same volume of the *Bulletin*" [i.e. in paragraph 4 of the paper by Mr. Hemming, reproduced in paragraph 2 of the present *Opinion*].

9. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 5th November 1955.

10. Particulars of the Voting on Voting Paper V.P.(55)12 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(55)12 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-three (23) Commissioners (arranged in the order in which Votes were received) :*

Bodenheimer ; Holthuis ; Riley ; Vokes ; Stoll ; Hering ; Bradley (J.C.) ; Lemche ; Prantl ; Hankó ; Mayr ; do Amaral ; Esaki ; Kühnelt ; Dymond ; Sylvester-Bradley ; Key ; Mertens ; Bonnet ; Hemming ; Miller ; Cabrera ; Jaczewski ;

(b) *Negative Votes :*

None ;

(c) *Voting Papers not returned, two (2) :*

Boschma¹; Tortonese¹.

11. Declaration of Result of Vote : On 6th November 1955, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(55)12, signed a Certificate that the Votes cast were as set out in paragraph 10 above and declaring that the proposals submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

12. Preparation of the Ruling given in the present “ Opinion ” : On 20th May 1956, Mr. Hemming prepared the Ruling given in

¹ After the close of the Prescribed Voting Period affirmative votes were received from Commissioner Boschma and Commissioner Tortonese.

the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposals approved by the International Commission in its Vote on Voting Paper V.P.(55)12.

13. Original References : The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

- anomalus*, *Cancer (Astacus)*, Herbst, 1804, *Vers. Naturgesch. Krabben Krebse* 3(4) : 45
- Callianassa* [Leach], [1814], Brewster's *Edinburgh Ency.* 7(2) : 400
- Calypso* Risso, 1816, *Hist. nat. Crust. Nice* : 74
- canaliculata*, *Processa*, Leach, [1815], *Malac. podophth. Brit.* (4) : expl. pl. 41
- Egeon* Bosc, 1813, *Nouv. Bull. Sci. Soc. philomat. Paris* 3(66) : 233
- Egeon* Risso, 1816, *Hist. nat. Crust. Nice* : 99
- Galathea* Fabricius, 1793, *Ent. syst.* 2 : 471
- Gebia* Leach, 1815, *Trans. linn. Soc. Lond.* 11 : 342
- Gerbios* Bosc, 1813, *Nouv. Bull. Sci. Soc. philomat. Paris* 3(66) : 233
- Janira* Risso, 1816, *Hist. nat. Crust. Nice* : 175
- Processa* Leach, [1815], *Malac. podophth. Brit.* (4) : expl. pl. 41
- stellatus*, *Cancer (Astacus)*, Montagu, 1808, *Trans. linn. Soc. Lond.* 9 : 89
- strigosus*, *Cancer*, Linnaeus, 1761, *Fauna svec.* (ed. 2) : 495
- subterraneus*, *Cancer (Astacus)*, Montagu, 1808, *Trans. linn. Soc. Lond.* 9 : 88
- Thalassalpes* Bosc, 1813, *Nouv. Bull. Sci. Soc. philomat. Paris* 3(66) : 233
- Thalassina* Latreille, 1806, *Gen. Crust. Ins.* 1 : 51
- Upogebia* [Leach], [1814], Brewster's *Edinburgh Ency.* 7(2) : 400

14. The following is the reference for the selection of the type species for the genus *Galathea* Fabricius, 1793, specified in the Ruling given in the present *Opinion* :—Latreille, 1810. *Consid. gén. Ordre nat. Anim. Class. Crust. Arachn. Ins.* : 422, 101.

15. The following are the original references for the family-group names placed on the *Official List* or on the *Official Index* established for recording the names of taxa belonging to the family-group of categories by the Ruling given in the present *Opinion* :—

CALLIANASSIDAE Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 12, 14, 19 (type genus : *Callianassa* [Leach], [1814])

GALATEADAE Samouelle, 1819, *Entomologist's useful Compendium* : 92 (type genus : *Galathea* Fabricius, 1793)

GALATHEIDAE White, 1847, *List. Crust. Brit. Mus.* : 65 (correction of the Invalid Original Spelling GALATEADAE Samouelle, 1819)

GEBIDAE Dana, 1852, *Proc. Acad. nat. Sci. Philad.* **6** : 12, 13, 19 (type genus : *Gebia* Leach, 1815)

GEBIIDAE Miers, 1876, *Cat. Crust. New Zealand* : 70 (correction of the Invalid Original Spelling GEBIDAE Dana, 1852)

HECTARTHROPIDAE Bate, 1888, *Rep. Voy. Challenger*, *Zool.* **24** : 481, 883 (type genus : *Hectarthropus* Bate, 1888)

NIKIDAE Bate, 1888, *Rep. Voy. Challenger*, *Zool.* **24** : xii, xli, 480, 503 (type genus : *Nika* Risso, 1816)

PROCESSIDAE Ortmann, 1896, *Zool. Jb. Syst.* **9** : 415, 424 (type genus : *Processa* Leach, [1815])

THALASSINIDAE White, 1847, *List Crust. Brit. Mus.* : 70 (correction of the Invalid Original Spelling THALASSINIDES Latreille, 1831)

THALASSINIDES Latreille, 1831, *Cours d'Entomol.* : 377 (type genus *Thalassina* Latreille, 1806)

UPOGEBIINAE Borradaile, 1903, *Ann. Mag. nat. Hist.* (7) **12** : 542 (type genus : *Upogebia* [Leach], [1814])

16. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

17. The present *Opinion* shall be known as *Opinion* Four Hundred and Thirty-Four (434) of the International Commission on Zoological Nomenclature.

DONE in London, this Twentieth day of May, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 14. Part 21. Pp. 425—458

OPINION 435

Suppression under the Plenary Powers of the generic name *Achorutes* Templeton, 1835, and designation under the same Powers of type species in harmony with current usage for the genera *Hypogastrura* Bourlet, 1839, and *Neanura* MacGillivray, 1893 (Class Insecta, Order Collembola)

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 435

**SUPPRESSION UNDER THE PLENARY POWERS OF THE
GENERIC NAME "ACHORUTES" TEMPLETON, 1835,
AND DESIGNATION UNDER THE SAME POWERS
OF TYPE SPECIES IN HARMONY WITH CURRENT
USAGE FOR THE GENERA "HYPOGASTRURA"
BOURLET, 1839, AND "NEANURA"
MACGILLIVRAY, 1893 (CLASS INSECTA,
ORDER COLLEMBOLA)**

RULING :—(1) The following action is hereby taken under the Plenary Powers :—

(a) The under-mentioned names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :—

- (i) the generic name *Achorutes* Templeton, 1835 ;
- (ii) the generic name *Rathumoutes* Templeton, 1843 ;
- (iii) the specific name *murorum* Bourlet, 1843, as published in the combination *Hypogastrella murorum* ;

(b) All designations, indications, or selections of type species for the nominal genera *Hypogastrura* Bourlet, 1839, and *Neanura* MacGillivray, 1893, made prior to the present Ruling are hereby set aside and the nominal species severally specified below are hereby designated to be the type species of the nominal genera in question :—

- (i) *Achorutes viaticus* Tullberg, 1872, to be the type species of *Hypogastrura* Bourlet, 1839 ;
- (ii) *Achorutes muscorum* Templeton, 1835, to be the type species of *Neanura* MacGillivray, 1893.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Name Numbers 1037 and 1038 respectively :—

- (a) *Hypogastrura* Bourlet, 1839 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(i) above : *Achorutes viaticus* Tullberg, 1872) ;
- (b) *Neanura* MacGillivray, 1893 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(ii) above : *Achorutes muscorum* Templeton, 1835).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* with the Name Numbers 1060 and 1061 respectively :—

- (a) *muscorum* Templeton, 1835, as published in the combination *Achorutes muscorum* (specific name of type species of *Neanura* MacGillivray, 1893) ;

- (b) *viaticus* Tullberg, 1872, as published in the combination *Achorutes viaticus* (specific name of type species of *Hypogastrura* Bourlet, 1839).

(4) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name Numbers severally specified below :—

- (a) *Achorutes* Templeton, 1835, as suppressed under the Plenary Powers under (1)(a)(i) above (Name No. 757) ;

- (b) *Rathumoutes* Templeton, 1843, as suppressed under the Plenary Powers under (1)(a)(ii) above (Name No. 758) ;

- (c) *Achoreutes* Templeton, 1843 (an Erroneous Subsequent Spelling for *Achorutes* Templeton, 1835) (Name No. 759) ;

- (d) *Biloba* Stach, 1949 (a junior objective synonym of *Neanura* MacGillivray, 1893, as defined under the Plenary Powers under (1)(b)(ii) above (Name No. 760) ;

- (e) *Anoura* Gervais, 1843 (a junior homonym of *Anoura* Gray (J.E.), 1838) (Name No. 761) ;

- (f) *Anura* Agassiz (J.L.R.), 1846 (a junior homonym of *Anura* Hodgson, 1841) (Name No. 762) ;

- (g) *Neogastrura* Stach, 1949 (a junior objective synonym of *Hypogastrura* Bourlet, 1839, as defined under the Plenary Powers under (1)(b)(i) above (Name No. 763).

(5) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific*

Names in Zoology with the Name No. 363 :—*murorum* Bourlet, 1843, as published in the combination *Hypogastrura murorum*, as suppressed under the Plenary Powers under (1)(a)(iii) above.

(6) The under-mentioned family-group names are hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) HYPOGASTRURINAE Börner, 1906 (type genus : *Hypogastrura* Bourlet, 1839) (Name No. 123) ;
- (b) NEANURINAE Börner, June 1901 (type genus : *Neanura* MacGillivray, 1893) (Name No. 124).

(7) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) ACHORUTINI Börner, 1901 (type genus : *Achorutes* Templeton, 1835, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species) (invalid (a) under *Declaration* 20 because the name of the type genus of this family-group taxon has been suppressed under the Plenary Powers under (1)(a)(i) above and (b) under *Declaration* 28¹, because the family-group taxon so named was based by its author on an incorrectly determined type genus) (Name No. 102);
- (b) ACHORUTINAE Börner, 1906 (type genus : *Achorutes* Templeton, 1835, treated correctly as having *Achorutes muscorum* Templeton, 1835, as type species) (invalid under *Declaration* 20 because the name of the type genus of this family-group

¹ *Declaration* 28, which bears the same date as the present *Opinion*, has been published in the immediately preceding Part (Part 20) of the present volume.

taxon has been suppressed under the Plenary Powers under (1)(a)(i) above) (Name No. 103) ;

(c) BILOBIDAE Stach, 1951 (type genus : *Biloba* Stach, 1949) (invalid, because the name *Biloba* Stach, 1949, is a junior objective synonym of *Neanura* MacGillivray, 1893, as defined under the Plenary Powers under (1)(b)(ii) above, the name *Neanura* MacGillivray, 1893, being the name of a nominal genus which is the type genus of the family-group taxon NEONURINAE Börner, June 1901, the name of which has priority over the name BILOBIDAE Stach, 1951) (Name No. 104) ;

(d) NEOGASTRURIDAE Stach, 1949 (type genus : *Neogastrura* Stach, 1949) (invalid because the name *Neogastrura* Stach, 1949, is a junior objective synonym of *Hypogastrura* Bourlet, 1839, as defined under the Plenary Powers under (1)(b)(i) above, the name *Hypogastrura* Bourlet, 1839, being the name of a nominal genus which is the type genus of the family-group taxon HYPOGASTRURINAE Börner, 1906, the name of which has priority over the name NEOGASTRURIDAE Stach, 1949) (Name No. 105).

I. THE STATEMENT OF THE CASE

The problem represented by the complex of generic names centred around the name *Achorutes* Templeton, 1835 (Class Insecta, Order Collembola), together with problems connected with the names of certain other genera in the same group was first brought to the attention of the Office of the International Commission on Zoological Nomenclature in a letter dated 27th November 1945 by M. Hermann Gisin (*Muséum d'Histoire Naturelle, Genève*). For various reasons it was not possible at that time either for M. Gisin or for the Office of the Commission

to make any progress with this case and it was not until 15th December 1954 that at length M. Gisin was able to submit an application to the International Commission. The application so submitted, which took account of the various decisions on matters of procedure taken respectively by the Thirteenth (Paris) and Fourteenth (Copenhagen) International Congresses of Zoology, was as follows :—

Proposed suppression under the Plenary Powers of the generic name “Achorutes” Templeton, 1835, and proposed designation under the same powers of type species for the genera “Hypogastrura” Bourlet, 1839, “Neanura” MacGillivray, 1893 (Class Insecta, Order Collembola) in harmony with accustomed usage

By HERMANN GISIN

(*Muséum d'Histoire Naturelle, Geneva*)

The object of the present application is to secure the assistance of the International Commission on Zoological Nomenclature to put an end to the long-standing confusion and lack of uniformity in the literature of the Order Collembola arising from the use of the generic name *Achorutes* Templeton, 1835, for one genus mainly by European authors and for a different genus mainly by American authors. Both the genera involved are of great taxonomic and economic importance. The relevant facts are set out in the following paragraphs.

2. The generic name *Achorutes* Templeton, 1835 (*Trans. ent. Soc. Lond.* 1(2) : 96) was established for two nominal species both then named for the first time. These were : (i) *Achorutes dubius* (: 96) ; (ii) *Achorutes muscorum* (: 97). No type species was designated by Templeton for this genus.

3. At a meeting of the *Société entomologique de France* held in 1843 Lucas, at the request of the President (Milne Edwards), made a communication to the Society regarding papers recently published on the Collembola in which he is recorded as having spoken as follows in regard to the genus referred to above :—“ . . . *Achorutes* Templ., . . . dont l'espèce type est *A. muscorum* . . . ”. While opinions differ as to whether, in making this observation, Lucas intended to select a type species for the genus *Achorutes* Templeton in the nomenclatorial sense, the words employed undoubtedly constitute such a selection under the present *Règles*. Moreover, as *Achorutes muscorum* Templeton was one of the species originally included in the genus *Achorutes* Templeton and as no type species for that genus had previously been designated or selected, Lucas's action is valid under the *Règles*. Lucas's paper attracted no attention at the time of its publication and his

action in regard to the genus *Achorutes* Templeton long passed unnoticed, both in Europe and in America. The extent to which Lucas's action was overlooked even in America may be judged by the fact that as late as 1893 (*Canad. Ent.* **25** : 315) McGillivray published a paper in which he sought to select *Achorutes dubius* Templeton to be the type species of the genus *Achorutes* Templeton, while at the same time he established the genus *Neanura* (*ibid.* **25** : 314), as a substitute for *Anoura* Gervais, 1843, designating *Achorutes muscorum* Templeton, 1835, to be the type species of his new genus *Neanura*. It will be necessary later to revert to the question of the status of the genus *Neanura* MacGillivray. In the meantime, however, it must be noted that the nomenclature established by MacGillivray has long been, and currently is, accepted by American specialists who recognise the genus *Neanura* MacGillivray with *Achorutes muscorum* Templeton as type species, notwithstanding the fact that, as shown above, that species is under the *Règles* the type species of the older nominal genus *Achorutes* Templeton.

4. The next generic name to be considered is *Hypogastrura* Bourlet, 1839 (*Mém. Soc. R. Sci. Lille* **1839**(1) : 404), a monotypical genus with *Podura aquatica* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 609) as type species. On this basis the name *Hypogastrura* Bourlet, 1839, is a junior objective synonym of *Podura* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) **1** : 608), for the nominal species *Podura aquatica* Linnaeus, 1758, is also the type species of *Podura* Linnaeus by designation by the International Commission under its Plenary Powers (see *Opinion* 239 embodying a decision taken in 1948 and promulgated in the foregoing *Opinion* in 1954, *Ops. Decls. int. Comm. zool. Nomencl.* **4** : 361—372). It is quite clear, however, that the genus *Hypogastrura* Bourlet is a genus based upon a misidentified type species, the species cited under this name by Bourlet as *aquatica* Linnaeus not being that species. That he had made an error of identification when establishing his genus *Hypogastrura* was quickly recognised by Bourlet himself who in 1843 gave the name *Hypogastrura murorum* (*Mém. Soc. R. Agric. Dep. Nord* **1841—1842** : 123) to the species to which in 1839 he had erroneously applied the name *Podura aquatica* Linnaeus. The nominal species *Hypogastrura murorum* Bourlet cannot be identified with certainty and the name is therefore a *nomen dubium*. It is commonly treated in catalogues as possibly a senior synonym of *Achorutes viaticus* Tullberg, 1872 (*K. svensk. Vetensk-Akad. Handl.*, Stockholm (n.s.) **10** (No. 10) : 50). In establishing his species *viaticus*, Tullberg gave a clear and recognisable description of the species concerned and it is not necessary therefore to examine in detail the synonymy which he gave for this species, beyond noting that he included in that synonymy the name *Hypogastrura murorum* Bourlet, 1843 (and through it the species misidentified by Bourlet in 1839 as *Podura aquatica* Linnaeus), thus establishing a link, though somewhat tenuous in character, between his new species and the sole species originally placed by Bourlet in the genus *Hypogastrura*. In 1906 Börner (*Mitt. naturh. Mus. Hamburg* **23** : 156) designated *Hypogastrura viaticus* Tullberg

as the type species of the genus *Hypogastrura* Bourlet, and his nomenclature has prevailed ever since in Europe. In 1916 (*Proc. U.S. nat. Mus.* 50 : 479) Folsom pointed out that Börner's interpretation of Bourlet's *Hypogastrura* was not consistent with the fact that *Podura aquatica* Linnaeus was the sole species placed by Bourlet in this genus and he accordingly reverted to the use of the name *Achorutes* Templeton for the genus containing the nominal species *Hypogastrura viatica* Tullberg. In so acting, Folsom was restoring the nomenclature established in 1873 by Lubbock (*Monogr. Collemb. Thysan.* : 177) who in this matter had been followed by MacGillivray (1893, *Canad. Ent.* 25 : 315) and other authors up to and including Börner himself prior to his re-introduction in 1906 of the name *Hypogastrura* Bourlet for this genus. Since the publication of Folsom's (1916) paper the name *Achorutes* Templeton has been used by American authors for the genus known in Europe as *Hypogastrura* Bourlet.

5. The next name to be considered is *Anoura* Gervais, 1843 (*Ann. Soc. ent. France* 11(3) : Bull. xlvii), for which the type species, by original designation, is the nominal species *Achorutes tuberculatus* Nicolet, 1842 (*Neue Denkschr. schweiz. Ges. Naturw.* 6 : 51). This nominal species is not identifiable with certainty, but Nicolet himself in 1847 (*Ann. Soc. ent. France* (2) 5 : 388) suggested that it represented the same species as that represented by the nominal species *Achorutes muscorum* Templeton, 1835, a view which has been generally adopted by later workers. On this basis the generic name *Anoura* Gervais, 1843, is a junior subjective synonym of *Achorutes* Templeton, 1835, of which (as shown in paragraph 3 above) *Achorutes muscorum* Templeton is the type species. Quite apart from this subjective synonymisation of the name *Anoura* Gervais with the name *Achorutes* Templeton, the name *Anoura* Gervais is objectively invalid, being a junior homonym of the name *Anoura* Gray (J.E.), 1838 (*Mag. Zool. Bot.* 2(12) : 490), the name of a genus in the Class Mammalia.

6. MacGillivray (1893, *Canad. Ent.* 25 : 314) was the first author to note that the name *Anoura* Gervais, 1843, was invalid under the Law of Homonymy. He sought to remedy this by introducing the name *Neanura* which he stated was "proposed for *Anoura* Gerv. which is pre-occupied in mammalogy". At the same time he described his *Neanura* as a "nov. gen." and designated *Achorutes muscorum* Templeton as its type species. The name *Neanura* MacGillivray is currently used by American specialists for this genus, for which however (as shown in paragraph 3 above) the oldest available, and therefore the correct, name is *Achorutes* Templeton, the name used for it by European workers.

7. At this point it is necessary to draw attention to a complication which arises in connection with the name *Neanura* MacGillivray which has not previously been noted in the discussion of this name. That is, that, although MacGillivray expressly stated that the name *Neanura* was a *nom. nov. pro* the preoccupied name *Anoura* Gervais,

he designated as the type species of his new genus a nominal species (*Achorutes muscorum* Templeton) different from that (*Achorutes tuberculatus* Nicolet) which was the type species of the genus *Anoura* Gervais. There is thus a formal inconsistency between the two parts of the action taken by MacGillivray, for (1) if his statement that *Neanura* is a substitute name for *Anoura* Gervais is accepted, its type species is automatically the same nominal species (*Achorutes tuberculatus* Nicolet) as that which is the type species of *Anoura* Gervais, notwithstanding MacGillivray's own simultaneous designation of a different nominal species (*Achorutes muscorum* Templeton) as the type species of *Neanura*, while (2) if MacGillivray's designation of *Achorutes muscorum* Templeton as the type species of his *Neanura* is accepted, it is necessary to reject his statement that *Neanura* is a replacement name for the invalid name *Anoura* Gervais. That this aspect of the case has not previously been the subject of examination is due no doubt to the fact that the two nominal species cited above are commonly regarded as representing a single species and therefore that the problem discussed above is one of nomenclatorial importance only. Moreover, up to 1953 there existed no provision in the *Règles* by which to determine which of the two statements made by MacGillivray in regard to his *Neanura* is to be accepted and which rejected. This matter was however settled at Copenhagen by the Fourteenth International Congress of Zoology when it decided, in an exactly parallel case at the species-name level, that, where a name was published partly as a substitute for some previously published name and partly to designate some other taxon, the taxon "to which the new name applies is in all circumstances that to which the previously published name is applicable" (1953, *Copenhagen Decisions zool. Nomencl.* : 75—76, Decision 142)². We see therefore that under the *Règles* *Neanura* MacGillivray is objectively identical with *Anoura* Gervais and therefore that its type species is the nominal species *Achorutes tuberculatus* Nicolet (the type species of *Anoura* Gervais) and not (as incorrectly stated by MacGillivray, when publishing the name *Neanura*) the nominal species *Achorutes muscorum* Templeton. The name *Neanura* MacGillivray is thus a junior subjective synonym of *Achorutes* Templeton and not a junior objective synonym, as it would have been, if its type species had been *Achorutes muscorum* Templeton (as it was erroneously stated to be by MacGillivray).

8. The other names or variant spellings involved in the present case need not detain us for long. They are the following :—

(1) *Rathumoutes* Templeton, 1843, *Trans. ent. Soc. Lond.* 3(4) : 306

In 1843 Templeton stated that it was necessary to establish several new subgenera for the genus *Podura* Linnaeus. In the last of these he included "*aquatica*, Lin., *fimetaria*, Lin., *ambulans*,

² The interpretation of the *Règles* here put forward by M. Gisin has since been officially endorsed by the International Commission in *Declaration 27*. See paragraph 3 of the present *Opinion*.

Fab., with *dubius* and *muscorum*” the last two nominal species being the sole species which he had included originally in his genus *Achorutes*. Without giving any explanation of his action, Templeton then wrote :—“I wish the name I gave this last [subgenus] changed from *Achoreutes* to *Rathumoutes*.” The latter name, as a *nom. nov. pro* the name *Achorutes* Templeton, 1835, takes automatically under Rule (f) in Article 30 the same type species as that of the nominal genus, the name of which it replaces. The type species of *Rathumoutes* Templeton, 1843, is therefore *Achorutes muscorum* Templeton, 1835, the type species of *Achorutes* Templeton, 1835 (see paragraph 3 above).

- (2) *Achoreutes* Templeton, 1843, *Trans. ent. Soc. Lond.* 3(4) : 306

The spelling *Achoreutes* was used by Templeton only in the passage quoted in (1) above in which he rejected the name *Achorutes* published by himself in 1835 and sought to replace it by the name *Rathumoutes*. The spelling *Achoreutes* is thus evidently no more than a spelling mistake for *Achorutes*.

- (3) *Anura* Agassiz (J.L.R.), 1846, *Nomencl. zool.*, Index univ. : 27

This name which appears to have been overlooked was a deliberate emendation by Agassiz of the name *Anoura* Gervais, 1843 (discussed in paragraph 5 above). Under the *Règles* as they exist today that emendation was not justified and the name *Anura* Agassiz is therefore an Invalid Emendation. Even if this had been a Valid Emendation, ranking for priority from 1843, the year in which the emended name *Anoura* Gervais was published, the name *Anura* (emend. by Agassiz of *Anoura*) Gervais, 1843, would have been invalid, since it would have been a junior homonym of *Anura* Hodgson, 1841 (*J. asiat. Soc. Bengal* 10(1) : 28). Under the revision of Article 19 carried out by the Fourteenth International Congress of Zoology, Copenhagen, 1953, an Invalid Emendation ranks as a separate name attributable to its own author and date. By Agassiz's action there is therefore a separate name *Anura* Agassiz, 1846, which, as explained above, is an invalid name by reason of being a junior homonym of *Anura* Hodgson, 1841, in addition to being an Invalid Emendation of *Anoura* Gervais, 1843.

- (4) *Neohypogastrura* Paclt, 1944, *Acta Soc. ent. Bohem.* 41 : 52

In 1944 Paclt published a short note in which he drew attention to the fact that (as noted in paragraph 4 of the present application) Bourlet in 1843 gave the name *Hypogastrura murorum* to the species to which he had erroneously applied the name *Podura aquatica* Linnaeus, 1758, when in 1839 he had first published the generic name *Hypogastrura*. Paclt then introduced the new name *Neohypogastrura* as a substitute for the name *Hypogastrura* as defined by Bourlet in 1843 (i.e. for a genus having *Hypogastrura murorum* Bourlet, 1843, as type species), as contrasted with Bourlet's original use of the name *Hypogastrura* in 1839. As

already noted, *Hypogastrura murorum* Bourlet is a *nomen dubium* doubtfully identifiable with *Achorutes viaticus* Tullberg, 1872. The name *Neohypogastrura* Paclt is thus, on the subjective plane, doubtfully available for the genus currently, though incorrectly, known as *Hypogastrura* Bourlet, 1839, by European workers.

- (5) *Neogastrura* Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 6, 9, 16

and

- (6) *Biloba* Stach, 1949, *ibid.* : 6, 16

The present problem was considered in 1949 by Stach who, after pointing out (: 15) that neither the American usage nor the European usage of "the name *Achorutes* = *Neanura* or *Achorutes* = *Hypogastrura*" was in strict accord with the provisions of the *Règles*—a view which it must be conceded is correct—expressed the following opinion (: 16):—"It would be rational to desist the names *Achorutes*, *Hypogastrura* and *Neanura* and use the new generic names mentioned above, namely *Neogastrura* nom. nov. (= *Achorutes* Templ. = *Hypogastura* sens. Börner) and *Biloba* nom. nov. (= *Neanura* MacGill. = *Achorutes* sens. Börner)". Stach's allusion to his new names having been "mentioned above" is a reference to the fact that he had already introduced the name *Neogastrura* on page 6 and again on page 9 of his book (on which latter page the species "*Neogastrura viatica* (Tullberg, 1872)" was expressly designated as the "Genotypus" of his genus *Neogastrura*) and that he had also introduced the name *Biloba* on page 6 of his book. While sharing Stach's view that the name *Achorutes* Templeton has been so seriously compromised by divergent usage as to have lost all practical value, it must be noted that it is not possible on this account to discard that name, save by the use by the International Commission of its Plenary Powers. Accordingly under the *Règles* the generic name *Biloba* Stach is invalid as a junior objective synonym of *Achorutes* Templeton, 1835. When we turn to *Neogastrura* Stach, we find that *Achorutes viaticus* Tullberg, 1872, its type species, is considered by Stach himself, as also by all other specialists except MacGillivray (1893), to be congeneric, and even consubgeneric, with the nominal species *Podura nivicola* Fitch, 1847 (*Amer. J. agr. Sci.* 5 : [10]), the type species, by original designation, of *Schoturus* MacGillivray, 1893 (*Canad. Ent.* 25 : 315, 316). Thus, although a nomenclatorially available name, *Neogastrura* Stach is, under the *Règles*, a junior subjective synonym of *Schoturus* MacGillivray. It should be noted however that the name *Schoturus* MacGillivray has never been used by specialists, although, as pointed out by Laing (1945, *Ent. mon. Mag.* 81 : 136), that name should under the *Règles*

be applied to the genus known incorrectly as *Achorutes* Templeton in America and as *Hypogastrura* Bourlet in Europe.

9. Having now completed our survey of the names given to, or used for, the two genera under consideration, we may offer the following synonymy of the names concerned :—

GENUS "A"	GENUS "B"
Genus having <i>Achorutes muscorum</i> Templeton, 1835 or nominal species subjectively identified therewith as type species	Genus having <i>Achorutes viaticus</i> Tullberg, 1872, as type species or, in the case of <i>Schoturus</i> MacGillivray, 1893, a species (<i>Podura nivicola</i> Fitch, 1846) subjectively regarded by specialists as congeneric with <i>Achorutes viaticus</i> Tullberg, 1872
(1) Objectively valid name	(1) Oldest subjectively available name
<i>Achorutes</i> Templeton, 1835	<i>Schoturus</i> MacGillivray, 1893
(2) Junior objective synonyms	(2) Junior objective synonyms
<i>Rathumoutes</i> Templeton, 1843 <i>Achoreutes</i> Templeton, 1843 <i>Biloba</i> Stach, 1949	None
(3) Junior subjective synonyms	(3) Junior subjective synonym
<i>Anoura</i> Gervais, 1843 (also invalid because a junior homonym of <i>Anoura</i> Gray (J.E.), 1838) <i>Anura</i> Agassiz, 1846 (also invalid because a junior homonym of <i>Anura</i> Hodgson, 1841) <i>Neanura</i> MacGillivray, 1893 (nom. nov. for <i>Anoura</i> Gervais, 1843)	<i>Neogastrura</i> Stach, 1949
(4) Incorrect use of a non-identical name	(4) Incorrect uses of non-identical names
None	<i>Achorutes</i> Templeton, 1835 (as used by American authors) <i>Hypogastrura</i> Bourlet, 1839 (as used by European authors)

10. I first brought the present case to the attention of the Commission in November 1945, being already of the opinion that order could be restored in the nomenclature of this group only with the help of the Commission's Plenary Powers. I then recommended that the Commission should suppress altogether the name *Achorutes* Templeton and that the name *Hypogastrura* Bourlet, 1839, should be stabilised for the genus having *Achorutes viaticus* Tullberg, 1872, as its type species and that the name *Neanura* MacGillivray, 1893, should be stabilised for the genus having *Achorutes muscorum* Templeton, 1835, as type species. It seemed to me essential that the name *Achorutes* Templeton should be discarded, for the different uses to which this name had been put so gravely compromised it that, if it were to be retained either in the sense used by European workers or in that used by American workers continued confusion would be inevitable. The remainder of my scheme provided for the validation, for the genus having *Achorutes muscorum* Templeton as type species, of the name (*Neanura* MacGillivray) used for that genus by American workers, and, for the genus having *Achorutes viaticus* Tullberg as type species, of the name (*Hypogastrura* Bourlet) currently used for that genus by European workers. This scheme aimed therefore at putting an end to the confusion arising from the use of the name *Achorutes* Templeton and at the same time giving valid force, so far as is possible, to the usage adopted by American and European workers respectively. Prior to the submission of these proposals to the Commission, I had already (1946, *Mitt. schweiz. ent. Ges.* 20(1) : 135) published a note setting out my ideas for the purpose of drawing the attention of workers in the Order Collembola to the possibility of obtaining a solution of this long-drawn-out controversy on the lines suggested. While the publication of that note did not secure—and in view of the history of this case could hardly have been expected to secure—unanimous support, it nevertheless attracted a large measure of agreement. In a case such as the present any settlement must inevitably call for some sacrifices of individual preferences but, as I am convinced, those sacrifices are much less under the scheme that I recommend than they would be under any other settlement that could be devised. I therefore strongly urge the Commission to restore order in the nomenclature of this group by taking action in the sense now recommended.

11. I further recommend that, when settling this matter at the genus-name level, the Commission should also take such steps as are necessary to stabilise the position at the family-group-name level. The family-group names concerned are the following :—

ACHORUTINI Börner, 1901, *Zool. Anz.* 24 : 13 (type genus : *Achorutes* Templeton, 1835, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species)

- ACHORUTINAE Börner, 1906, *Mitt. naturh. Mus. Hamburg* **23** : 159, 160 (type genus : *Achorutes* Templeton, 1835, treated correctly as having *Achorutes muscorum* Templeton, 1835, as type species)
- BILOBIDAE Stach, 1951, *Apterygotan Faun. Poland*, Fam. Bilobidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 3 (type genus : *Biloba* Stach, 1949)
- HYPOGASTRURINAE Börner, 1906, *Mitt. naturh. Hamburg* **23** : 160 (type genus : *Hypogastrura* Bourlet, 1839, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species)
- NEOGASTRURIDAE Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 5 (type genus : *Neogastrura* Stach, 1949)
- NEANURINAE Börner, June 1901, *Zool. Anz.* **24** : 431 (type genus : *Neanura* MacGillivray, 1893, treated incorrectly as having *Achorutes muscorum* Templeton, 1835, as type species)
- NEANURINI Börner, October 1901, *Abh. naturw. Ver. Bremen* **17** : 33 (type genus : *Neanura* MacGillivray, 1893, treated incorrectly as having *Achorutes muscorum* Templeton, 1835, as type species)

12. Having completed the review of the complicated history of the names which form the subject of the present application, I submit as follows for the consideration of the International Commission particulars of the action needed to give effect to the proposed settlement now recommended, namely, that the Commission should :—

(1) use its Plenary Powers :—

- (a) to suppress the under-mentioned names for the purposes of the Law of Priority but not for those of the Law of Homonymy :—
- (i) the generic name *Achorutes* Templeton, 1835 ;
 - (ii) the generic name *Rathumoutes* Templeton, 1843 ;
 - (iii) the specific name *murorum* Bourlet, 1843, as published in the combination *Hypogastrura murorum* ;
- (b) to set aside all designations, indications or selections of type species for the under-mentioned nominal genera made prior to the present Ruling and to designate as the type species of those genera the nominal species severally specified below :—
- (i) *Achorutes viaticus* Tullberg, 1872, to be the type species of *Hypogastrura* Bourlet, 1839 ;
 - (ii) *Achorutes muscorum* Templeton, 1835, to be the type species of *Neanura* MacGillivray, 1893 ;

(2) place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—

- (a) *Hypogastrura* Bourlet, 1839 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(i) above : *Achorutes viaticus* Tullberg, 1872) ;
- (b) *Neanura* MacGillivray, 1893 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b)(ii) above : *Achorutes muscorum* Templeton, 1835)

(3) place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

- (a) the generic names *Achorutes* Templeton, 1835, and *Rathumoutes* Templeton, 1843, as suppressed under the Plenary Powers under (1)(a)(i) and (1)(a)(ii) above respectively ;
- (b) *Achoreutes* Templeton, 1843 (an Erroneous Subsequent Spelling of *Achorutes* Templeton, 1835) ;
- (c) *Biloba* Stach, 1949 (a junior objective synonym of *Neanura* MacGillivray, 1893) ;
- (d) *Anoura* Gervais, 1843 (a junior homonym of *Anoura* Gray (J.E.), 1838) ;
- (e) *Anura* Agassiz, 1846 (a junior homonym of *Anura* Hodgson, 1841) ;
- (f) *Neogastrura* Stach, 1949 (a junior objective synonym of *Hypogastrura* Bourlet, 1839, as defined under the Plenary Powers under (1)(b)(i) above) ;

(4) place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—

- (a) *muscorum* Templeton, 1835, as published in the combination *Achorutes muscorum* (specific name of type species, by designation under the Plenary Powers under (1)(b)(ii) above, of *Neanura* MacGillivray, 1893) ;
- (b) *viaticus* Tullberg, 1872, as published in the combination *Achorutes viaticus* (specific name of type species, by designation under the Plenary Powers under (1)(b)(i) above, of *Hypogastrura* Bourlet, 1839) ;

(5) place the under-mentioned specific name on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—*murorum* Bourlet, 1843, as published in the combination *Hypogastrura murorum* and as suppressed under the Plenary Powers under (1)(a)(iii) above ;

- (6) place the under-mentioned family-group names on the *Official List of Family-Group Names in Zoology* :—
- (a) HYPOGASTRURINAE Börner, 1906 (type genus : *Hypogastrura* Bourlet, 1839) ;
 - (b) NEANURINAE Börner, June 1901 (type genus : *Neamura* MacGillivray, 1893) ;
- (7) place the under-mentioned family-group names on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—
- (a) ACHORUTINI Börner, 1901 (type genus *Achorutes* Templeton, 1835, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species) (a family-group name based on a generic name suppressed under the Plenary Powers for the purposes of the Law of Priority) ;
 - (b) ACHORUTINAE Börner, 1906 (type genus : *Achorutes* Templeton, 1835, treated correctly as having *Achorutes muscorum* Templeton, 1835, as type species) (a family-group name based on a generic name suppressed under the Plenary Powers for the purposes of the Law of Priority) ;
 - (c) BILOBIDAE Stach, 1951 (type genus : *Biloba* Stach, 1949) (invalid because the name of the type genus is a junior objective synonym of *Neamura* MacGillivray, 1893, as defined under the Plenary Powers under (1)(b)(ii) above the name of a nominal genus which is the type genus of the family-group taxon NEANURINAE Börner, June 1901) ;
 - (d) NEANURINI Börner, October 1901 (type genus : *Neamura* MacGillivray, 1893) (a junior homonym of NEANURINAE Börner, June 1901, a family-group name having the same genus as type genus) ;
 - (e) NEOGASTRURIDAE Stach, 1949 (type genus : *Neogastrura* Stach, 1949) (invalid because the name of the type genus is a junior objective synonym of *Hypogastrura* Bourlet, 1839, as defined under the Plenary Powers under (1)(b)(i) above, the name of a nominal genus which is the type genus of the family-group taxon HYPOGASTRURINAE Börner, 1906).

2. Two questions of principle affecting the interpretation of the “Règles” raised in the present case : The application submitted by M. Gisin in regard to the name *Achorutes* Templeton, 1835, and associated names raised two questions of principle affecting the interpretation of the *Règles*. Each of these

has since been the subject of a *Declaration* by the International Commission. The problems so involved are outlined in the two immediately following paragraphs.

3. Bearing on the present case of the decision in “ Declaration ” 27 relating to the question of the species to be accepted in certain circumstances as the type species of a nominal genus established as a substitute for a previously established nominal genus : The first of the problems affecting the interpretation of the *Règles* raised by M. Gisin’s application was concerned with the question of the species to be accepted as the type species of a nominal genus established as a substitute for a previously established such genus in cases where the author of the substitute name designated for the nominal taxon so established a type species different from that of the nominal genus so replaced. This problem arose in connection with the generic name *Neanura* MacGillivray, 1893, one of the names included in M. Gisin’s application, and a decision on it was essential before a decision could be taken by the International Commission on this part of M. Gisin’s proposals. Accordingly, an arrangement was made between Mr. Hemming, as Secretary and M. Gisin under which an application for a *Declaration* on this subject would be submitted to the Commission by the former simultaneously with the submission of M. Gisin’s application in regard to the generic names *Achorutes* Templeton, 1835, and *Neanura* MacGillivray, 1893. Mr. Hemming’s request for a *Declaration* on the foregoing subject was published on 21st January 1955 (*Bull. zool. Nomencl.* **11** : 35—37). At the same time this question was registered as a separate case under the Number Z.N.(S.) 867. By a vote taken by the Commission simultaneously with that taken on M. Gisin’s application in regard to the names of the genera of the Order Collembola discussed above the Commission approved the adoption of the proposed *Declaration*, thus paving the way for a decision on the question of the species to be adopted as the type species of the genus *Neanura* MacGillivray, 1893. The decision taken by the Commission on the foregoing question of principle has now been embodied in *Declaration* 27³.

³ *Declaration* 27 has been published as Part 19 of the present volume.

4. Bearing on the present case of the decision in " Declaration " 28 relating to the status of a family-group name when established with an erroneously determined type species : The second of the problems affecting the interpretation of the *Règles* raised by M. Gisin's application was concerned with the status to be accorded to the name of a family-group taxon when that taxon was established on the basis of an incorrectly determined type genus. In his application M. Gisin took the view that a family-group name established in the foregoing manner ought to be treated as possessing no status in zoological nomenclature and he so based the portion of his application relating to the family-group name based on the generic name *Achorutes* Templeton, 1835, which had been incorrectly introduced in this way by Börner in 1901. As is explained later in the present *Opinion* (paragraph 19) Mr. Hemming, when preparing the Voting Paper to be submitted to the Commission in regard to M. Gisin's application, took the view that the foregoing question of principle ought to be dealt with separately from, and in advance of, the proposals submitted by M. Gisin in regard to the names of genera of the Order Collembola discussed above. He accordingly then detached this question from the remainder of M. Gisin's application, the latter retaining its original Registered Number Z.N.(S) 303, a new Number Z.N.(S.) 1038, being allotted to question of principle so removed. The two parts of M. Gisin's proposal were then submitted to the Commission for vote. Both parts of M. Gisin's application were approved by the International Commission in due course (paragraph 24 and 25 below). The decision on the question of principle relating to family-group names has this day been embodied in *Declaration 28*⁴ as a preliminary to the adoption of the present *Opinion*.

II. THE SUBSEQUENT HISTORY OF THE CASE

5. Registration of the present application : Upon the receipt of M. Gisin's preliminary communication in November 1954

⁴ See Footnote 1.

regarding the generic name *Achorutes* Templeton and a number of other generic names in the Order Collembola, the papers so received were provisionally allotted the Registered Number Z.N.(S.) 199. When work was commenced on the individual cases so submitted by M. Gisin, the problems involved in connection with the generic name were allotted the separate Registered Number Z.N.(S.) 303.

6. Issue of Public Notice in 1947 : Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was given on 14th November 1947 in the manner prescribed by the Ninth International Congress of Zoology, Monaco, 1913, at the time of the grant of the Plenary Powers to the Commission by that Congress. The issue of these Public Notices elicited support from one specialist. Particulars of the communication so received is given in the immediately following paragraph.

7. Support received from Harlow B. Mills (State Natural History Survey Division, Urbana, Illinois, U.S.A.) : On 23rd March 1948 Dr. Harlow B. Mills (*State Natural History Survey Division, Urbana, Illinois, U.S.A.*) wrote a letter to the Office of the Commission in which he commented on a number of cases recently published in the *Bulletin of Zoological Nomenclature*. Dr. Mills's remarks concerning the present case were as follows (Mills, 1955, *Bull. zool. Nomencl.* **11** : 102) :—

Hypogastrura Bourlet with *Achorutes viaticus* Tullberg as the type. While I do not follow the reasoning clearly that *Hypogastrura* should replace *Achorutes* in this sense, the situation here is different from that outlined for *Podura* and *Tomocerus*. *Hypogastrura* has been used for this species group by European workers for many years. On the other hand, American workers and British specialists have, in general, used the name *Achorutes*. Because of this confusion in the use of generic names for the same species group, something should be done about it and I feel that a ruling of the Commission will be necessary to settle this matter. I would recommend (however, with considerable regret) that the generic name *Hypogastrura* be used, with *Achorutes viaticus* Tullberg as the type. This should settle this complex problem.

Neanura MacGillivray. This has been misspelled *Noanura* in the note in *Science*. As I read the literature, *Achorutes muscorum* Temple-

ton becomes the type of the genus *Neanura* without Commission action. However, if there is any doubt in anyone's mind I feel that the Commission should indicate, as a suspension of the Rules if it so desires, that *Achorutes muscorum* is the type of *Neanura* MacGillivray.

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8. Administrative preoccupations in the period 1948—1953 :
In the period immediately following the issue of the Public Notices specified in paragraph 6 above printing difficulties, including shortages of labour at the printing works, made it impossible to arrange for the publication in the *Bulletin of Zoological Nomenclature* of the preliminary communication received from M. Gisin in regard to the present case prior to the Session of Meetings held by the International Commission in Paris in July 1948 simultaneously with the meeting of the Thirteenth International Congress of Zoology. In the period of about eighteen months immediately following the close of the Paris Congress the entire resources of the Office of the Commission were directed to the preparation and publication of the Official Records of the meetings then held by the International Commission and by the Section on Nomenclature of the Congress. These were published in 1950 *Bull. zool. Nomencl.* 4, 5) in which year a start was made on the resumption of work on applications on individual names submitted to the Commission by individual specialists for decision. At that time as the result of the difficulties which had confronted the Commission both during the war and in the immediate post-war period there was a considerable accumulation of arrears of cases calling for attention by the Commission. So far as was possible, these cases were dealt with in rotation and in consequence the state of this case had been but little advanced by the time when in 1952 it became necessary to switch the main activity of the Office of the Commission to the preparations needed for the meeting of the Commission arranged to be held at Copenhagen in July 1953. When at the beginning of 1954 it once more became possible to resume work on individual applications, the present was one of the first to be given attention. The decision of the Copenhagen Congress in the previous year that in the case of applications such as the present which involved generic names consideration should be given to the family-group-name problems involved introduced into the present case a fresh

element of complexity. In the course of the year these difficulties were, however, cleared up between the Office of the Commission and M. Gisin who, as already noted (paragraph 1 above) was ultimately able to submit the present application to the Commission on 15th December 1954.

9. Support received in 1955 from J. T. Salmon (Victoria University College, Department of Zoology, Wellington, New Zealand) : On 13th January 1955 Dr. J. T. Salmon (*Victoria University College, Department of Zoology, Wellington, New Zealand*), in response to an invitation from the Secretary to the Commission to forward views on this case as a result of correspondence which had taken place between Dr. Salmon and the Secretary in 1948, addressed the following letter to the Commission (Salmon, 1955, *Bull. zool. Nomencl.* **11** : 232) :—

I am very pleased to hear that the question of *Hypogastrura* is to be settled at last. If the rules are not to be applied, then I think the proposal set out in your letter [i.e., the proposals as set out in Dr. Gisin's application] is certainly the best solution. It has my full support.

10. Publication of the present application : The present application was sent to the printer on 31st December 1954 and was published on 31st January 1955 in Part 2 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Gisin, 1955, *Bull. zool. Nomencl.* **11** : 38—48).

11. Reissue of Public Notices in 1955 : In the period which had elapsed since the issue in 1947 of Public Notices in regard to the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case changes in regard to the manner in which such Notices should be given have been introduced by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 51—56) and in consequence renewed Public Notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers was given on 31st January 1955 (a) in Part 2 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part

in which M. Gisin's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to certain general zoological serial publications and to seven entomological serials in Europe and America.

12. Comments received : The publication of M. Gisin's application and the accompanying issue of Public Notices elicited comments from six specialists in addition to Dr. Harlow B. Mills and Dr. J. T. Salmon from whom, as already noted, comments had been received prior to the publication of the present application (paragraph 7 and paragraph 9 above respectively). Of the six specialists concerned four (Kenneth A. Christiansen ; H. E. Goto ; D. H. Murphy ; R. Yosii) supported the application submitted by M. Gisin, one (Paclt) supported one part of that application but objected to another part, and one (Peter F. Bellinger) objected to the use of the Plenary Powers in the manner proposed. The communications so received are reproduced in the immediately following paragraphs.

13. Support from Kenneth A. Christiansen (Smith College, Northampton, Massachusetts, U.S.A.) : On 24th April 1955 Kenneth A. Christiansen (*Smith College, Northampton, Massachusetts, U.S.A.*) sent to the Office of the Commission a letter in support of three of M. Gisin's proposals. His remarks concerning the present case were as follows (Christiansen, 1955, *Bull. zool. Nomencl.* **11** : 266) :—

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Support for Z.N.(S.) 303. This proposal will establish as valid the procedure which has been followed by many taxonomists in the field during the last ten years. The names have both been in wide usage, and neither is confusable with other groups. The various attempts to solve this problem by creation of new names have achieved no support other than that of the original authors (i.e. Paclt for *Neohypogastrura* and Stach for *Neogastrura*)

14. Support from H. E. Goto (Imperial College of Science and Technology, London) and D. H. Murphy (University of Durham) : On 23rd May 1956 H. E. Goto (*Imperial College of Science and Technology*) and D. H. Murphy (*University of Durham*) addressed to the Office of the Commission a letter in support of three of

M. Gisin's proposals. The following is an extract from this letter which bears on the present case :—

We should like to give our full support to the under-mentioned proposals made by M. Gisin to the International Commission on Zoological Nomenclature :—

Proposed suppression under the Plenary Powers of the generic names *Achorutes* Templeton, 1835, and designation under the same Powers of a type species for the genus *Hypogastrura* Bourlet, 1839.

15. Support from R. Yosii (Biological Institute of the Yoshida College, University of Kyoto, Japan) : On 28th June 1955 Professor R. Yosii (*Biological Institute of the Yoshida College, University of Kyoto, Japan*) wrote a letter to the Commission in support of the present application and other proposals by, M. Gisin. The portion of Professor Yosii's letter which is relevant to the present case is as follows :—

Z.N.(S.) 303 : If the present application is adopted it would be cordially welcomed by me. Since I began my studies in Collembola more than fifteen year ago I have been perplexed by the confusion of the usage of the generic name *Achorutes* and decided personally to abandon the name and use *Hypogastrura* and *Neanura* only. The present application, therefore, legalises my private usage and is highly commendable. There should be no confusion or disorder from this action.

16. Comment received from J. Paclt (Slovak Academy of Sciences, Bratislava, Czechoslovakia) : On 1st April 1955 Dr. J. Paclt (*Slovak Academy of Sciences, Bratislavia, Czechoslovakia*) addressed the following statement to the Office of the Commission with regard to the present case (Paclt, 1955, *Bull. zool. Nomencl.* **11** : 265) :—

Being entirely in favour of the proposal that the Commission should use its Plenary Powers to place the generic name *Hypogastrura* Bourlet, 1839, on the *Official List of Generic Names in Zoology* and to designate under the same Powers *Achorutes viaticus* Tullberg, 1872, to be the type species of that genus, I think that the strict application of the Rules must, on the other hand, be enforced in the case of the generic name *Achorutes* Templeton, 1835.

When the use of the generic name *Hypogastrura* Bourlet, 1839, is stabilised according to the proposal in question, all confusion in the use of the generic name *Achorutes* Templeton, 1835, ceases to exist, for the latter name cannot be used erroneously for the other genus (with *A. viaticus* Tullberg as type species) any longer. The same usage has been adopted not only by European authors, but also by a number of non-European workers, e.g., Womersley (1939, *Primitive Insects of South Australia, Adelaide*), who all reject the junior synonym *Neanura* MacGillivray, 1893, in favour of *Achorutes* Templeton, 1835 (with *A. muscorum* Templeton as type species). Besides these arguments another fact seems to support my objection to the proposed use of the Plenary Powers to suppress the generic name *Achorutes* Templeton, 1835. The etymology of the generic name *Achorutes* indicates clearly that the genus comprises, in contrast to *Hypogastrura*, species which are unable to spring ($\alpha + \chi\omicron\rho\rho\epsilon\nu\tau\eta\varsigma$, "not" + a "ballet dancer"), an excellent mnemonic to any student of Collembola, who possesses some knowledge of classic philology.

At any rate, it would be very inconvenient to put aside the well-known generic name *Achorutes* Templeton, 1835, now, when it may, more easily than whenever before, be restricted practically to its correct usage, assuming that the case of *Hypogastrura* Bourlet, 1839, is settled by the Commission's action.

17. Objection received from P. F. Bellinger (University College of the West Indies, Jamaica, B.W.I.) : On 26th June 1955 Dr. P. F. Bellinger (*University College of the West Indies, Jamaica, B.W.I.*) addressed to the Office of the Commission a statement with regard to the present case. An extract from the letter so received was as follows :—

I heartily sympathize with M. Gisin's desire to promote stability in the nomenclature of Collembola, but find I cannot agree with him on the best method of achieving this.

Let me say at once that I base my opinion of these proposals on a preference for restriction of the Plenary Powers which may be peculiarly my own. I would prefer that the use of these powers be limited to cases where the strict application of the Rules cannot, by the nature of the case, produce a satisfactory result ; for example, the suppression of generic names whose application is uncertain because of the impossibility of determining the identity of their types. The suppression of senior synonyms whose identity is known should, I

believe, be avoided, except perhaps for names which have never been used since their publication.

In the cases under consideration, my views are as follows :

1. *Achorutes* Templeton, 1835 : As M. Gisin points out, the type of this genus has apparently been selected as *muscorum* Templeton. This name (*muscorum*) is in common use and always applied to a species which could not be confused with any other in the Irish fauna ; and Templeton's description, while inadequate, could not fit any other species. Since the type of *Achorutes* is a recognized species, there is no uncertainty about the application of this generic name. I am opposed to its suppression ; it has been used in the correct sense for many years by most European authors, and no action on the part of the Commission is necessary to validate this usage.

2. *Hypogastrura* Bourlet, 1839 : I have not seen Bourlet's original description, but M. Gisin provides sufficient information for a decision. The type of *Hypogastrura* must be "*aquatica* Linnaeus" of Bourlet. If this species is taken as being the true *aquatica* Linnaeus, then *Hypogastrura* must fall to *Podura*. If, as seems more probable, Bourlet's "*aquatica*" was another species, i.e. *murorum* Bourlet, 1839, then there are two possibilities ; either *murorum* is indeterminable, in which case the identity of *Hypogastrura* is also indeterminable, or *murorum* can be determined. In the latter case it is necessary to decide on the identity of *murorum*. So far as I am aware, the only suggestion in the literature as to its identity is that it is the same as *viaticus* Tullberg. In this case the latter name should fall to *murorum*. It seems to me that *Hypogastrura* must be either (1) a synonym of *Podura*, or (2) a name of uncertain application which should be suppressed, or (3) a valid name with *murorum* as its type. To validate *Hypogastrura* while at the same time suppressing *murorum*, which furnishes the only link between Bourlet's concept and the modern European one, would be illogical and contradictory.

I personally would prefer to see *Hypogastrura* suppressed, together with *murorum*, or alternatively to have the type of *Hypogastrura* fixed as *aquatica* Linnaeus, which would also dispose of the name. In the event of such action, the oldest name for the genus now known as *Hypogastrura* would be *Podurhippus* Mégnin, 1878. This name, which M. Gisin does not mention, has undoubted priority over *Schoturus* MacGillivray and any other names known to me. The type of *Podurhippus* (monotypic) is *pityriasicus* Mégnin ; Denis (*Bull. Soc. zool. France* 49 : 555—556) has shown that Mégnin's specimens belong to *Achorutes manubrialis* Tullberg, 1869. *Podurhippus* therefore has a well-known species as its type, and the application of the name is not in doubt. *Schoturus* would still be available for *nivicola* Fitch, if it were desirable to separate this species generically from *manubrialis*.

I have made these suggestions in the belief that the stability of nomenclature will be best achieved by use of the Plenary Powers only in cases where permanent, as opposed to temporary confusion is to be avoided. However, unanimity of action is certainly more important than any personal views on the application of the Rules, and I will regard any action taken by the Commission as final.

18. Withdrawal of the proposal for the addition of the tribe name "NEANURINI" Börner, October 1901, to the "Official Index of Rejected and Invalid Family-Group Names in Zoology" : On 8th November 1955 Mr. Hemming, as Secretary, prepared the Voting Paper to be submitted to the International Commission in connection with the present case and, in doing so, added a note (Note 5) regarding the proposal included in M. Gisin's application that the tribe name NEANURINI Börner, October 1901, should be placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*. In this Note Mr. Hemming pointed out that the oldest family-group name based on the generic name *Neanura* MacGillivray, 1893, was NEANURINAE Börner, June, 1901 which M. Gisin had recommended should be placed on the *Official List of Family-Group Names in Zoology*, and that the publication of a family-group name based upon a given generic name for a taxon of any rank in the family-group (in this case, a subfamily) involved also implicitly the publication on the same date of family-group names based on that generic name for taxa of every other rank within the family-group, family-group names being co-ordinate with one another (1953, *Copenhagen Decisions zool. Nomencl.* : 33, Decision 46). In consequence of the foregoing provision a tribe name NEANURINI was to be deemed for nomenclatorial purposes to have been published at the same time as the subfamily name NEANURINAE was published by Börner in June 1901. For the purposes of nomenclature, therefore there was no tribe name NEANURINI ranking as a new name distinct from the subfamily-name NEANURINAE Börner, June 1901. The proposal included in Point (7)(d) in paragraph 12 of M. Gisin's application that the name NEANURINI Börner, October 1901, should be placed as a separate name on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* was therefore incorrect and had,

Mr. Hemming explained, been included in the present application by inadvertence. Mr. Hemming concluded his Note by withdrawing Proposal (7)(d) in paragraph 12 of the present application from the scope of the proposal on which the Members of the Commission would be asked to vote.

19. Decision to divide M. Gisin's application into two portions in order to provide an opportunity to the Members of the Commission to vote separately (a) on the question of principle involved regarding the status of a family-group name based upon a misidentified type genus and (b) on the proposals submitted relating to the names of certain taxa belonging to the Order Collembola (Class Insecta) : When preparing the Voting Paper to be submitted to the Members of the International Commission in connection with the application submitted by M. Gisin in regard to the names of certain taxa belonging to the Order Collembola (Class Insecta) Mr. Hemming added a note (Note 6) drawing attention to the decision taken on procedural grounds under which two Voting Papers would be submitted to the Commission in the present case, the first being concerned with the possible adoption of a *Declaration* clarifying the novel point on family-group nomenclature raised in M. Gisin's application, the second with M. Gisin's proposals in regard to the names of certain taxa in the Order Collembola⁵.

III. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

20. Issue of Voting Papers V.P.(56)2 and V.P.(56)3 : On 27th January 1956 two Voting Papers (V.P.(56)2 and V.P.(56)3)

⁵ See paragraph 4 of the present *Opinion*.

relating to the present case were issued to the Members of the International Commission. In the first of these Voting Papers the Members of the Commission were invited to vote either for, or against the adoption of a *Declaration* interpreting the provisions in the *Règles* relating to family-group names in the sense in which it had been interpreted by M. Gisin in his application when dealing with the status of the family-group name ACHORUTINI Börner, 1901. In the second of the Voting Papers referred to above the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the generic name *Achorutes* Templeton, 1835, and associated names as set out in Points (1) to (6) and (7)(a) to (7)(c) and (7)(e) on page 46 onwards to page 48 in Volume 11 of the *Bulletin of Zoological Nomenclature* ” [i.e. in the Points numbered as above in paragraph 12 of the application reproduced in the first paragraph of the present *Opinion*].

21. The Prescribed Voting Period for Voting Papers V.P.(56)2 and V.P.(56)3 : As the foregoing Voting Papers were issued under the Three-Month Rule, the Prescribed Voting Period for each of these Voting Papers closed on 27th April 1956.

22. Particulars of the Voting on Voting Paper V.P.(56)3 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)3 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-two (22) Commissioners (arranged in the order in which Votes were received) :*

Holthuis ; Vokes ; Hering ; Mayr ; Kühnelt ; Lemche ; Bradley (J.C.) ; do Amaral ; Dymond ; Stoll ; Prantl ; Jaczewski ; Key ; Bodenheimer ; Bonnet ; Sylvester-Bradley ; Hemming ; Hankó ; Tortonese ; Boschma ; Cabrera ; Miller ;

(b) *Negative Votes, three (3) :*

Mertens ; Riley ; Esaki ;

(c) *Voting Papers not returned* :

None.

23. Postponement in April 1956 of the Declaration of the Result of the Vote on Voting Paper V.P.(56)2 : Since (as explained in paragraph 20 above) Voting Paper V.P.(56)2 was issued on the same date as Voting Paper V.P.(56)3, the Prescribed Voting Period for that Voting Paper closed also on 27th April 1956. When the Votes returned by the Members of the Commission on Voting Paper V.P.(56)2 came to be examined, it was found that questions of substance regarding the form of the proposed *Declaration*, the adoption of which formed the subject of that Voting Paper, had been raised by certain Members of the Commission. The Secretary accordingly decided that the proper course would be to invite the International Commission to re-examine the wording of the proposed *Declaration* in the light of the comments referred to above. Mr. Hemming therefore re-submitted this question to the Members of the Commission on 31st July 1956, together with a further Voting Paper (V.P.(O.M.)(56)15) in which was set out for consideration a revised formula which took account of the questions of presentation referred to above. Since the adoption of a *Declaration* clarifying the provisions in the *Règles* in relation to the status of a family-group name where the family-group taxon so named was based upon a misdetermined type genus was an indispensable preliminary to the taking by the International Commission of a decision regarding one of the names dealt with in M. Gisin's application (namely, ACHORUTINI Börner, 1901), Mr. Hemming at the same time decided to postpone the Declaration of the Result of the Vote on Voting Paper V.P.(56)3 until after a decision had been reached by the Commission on the revised proposals submitted with Voting Paper V.P.(O.M.)(56)15 which, as explained above, was issued in substitution for Voting Paper V.P.(56)2.

24. Adoption in September 1956 of a " Declaration " clarifying the interpretation of the provisions in the " Règles " relating to family-group names on which a decision was required as a per-

liminary to the taking by the Commission of a decision in regard to one of the names dealt with in the present case : The Prescribed Voting Period for Voting Paper V.P.(O.M.)(56)15 closed on 31st August 1956, when it was found that the revised proposal submitted with that Voting Paper had been approved and adopted by the International Commission. The decision so taken has this day been embodied in *Declaration 28*.⁶ Under the terms of that *Declaration* the family-group name ACHORUTINI Börner, 1901, being a name published for a family-group taxon based upon a misidentified type genus, possesses no status in zoological nomenclature. Accordingly, the provisional decision in this sense taken by the International Commission by its vote on Voting Paper V.P.(56)3 is confirmed and the ground cleared for the Declaration of the Result of the vote by the Commission on that Voting Paper.

25. Declaration of Result of Vote on Voting Paper V.P.(56)3 : On 1st September 1956, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)3, signed a Certificate that the Votes cast were as set out in paragraph 22 above and that the vote provisionally so taken as regards the family-group name ACHORUTINI Börner, 1901, had been duly confirmed by the adoption of *Declaration 28*, and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

26. Preparation of the Ruling given in the present " Opinion " : On 7th September 1956 Mr. Hemming prepared the Ruling given in the present *Opinion* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(56)3, as confirmed, as respects one name, by *Declaration 28* rendered simultaneously with the present *Opinion*.

⁶ See Footnote 1.

27. Original References : The following are the original references for the generic and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion* :—

Achoreutes Templeton, 1843, *Trans. ent. Soc. Lond.* **3**(4) : 306

Achorutes Templeton, 1835, *Trans. ent. Soc. Lond.* **1**(2) : 96

Anoura Gervais, 1843, *Ann. Soc. ent. France* **11**(3) : Bull. xlvii

Anura Agassiz (J.L.R.), 1846, *Nomencl. zool.*, Index univ. : 27

Biloba Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 6, 16

Hypogastrura Bourlet, 1839, *Mém. Soc. R. Sci. Lille* **1839**(1) : 404

murorum, *Hypogastrura*, Bourlet, 1843, *Mém. Soc. R. Agric. Dep. Nord* **1841—1842** : 123

muscorum, *Achorutes*, Templeton, 1835, *Trans. ent. Soc. Lond.* **1**(2) : 97

Neanura MacGillivray, 1893, *Canad. Ent.* **25** : 314

Neogastrura Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 6, 9, 16

Rathumoutes Templeton, 1843, *Trans. ent. Soc. Lond.* **3**(4) : 306

viaticus, *Achorutes*, Tullberg, 1872, *K. Svensk Vetensk-Akad. Handl.* (n.s.) [Ser. 4] **10** (No. 10) : 50

28. The following are the original references for the names of family-group taxa placed on the *Official List* and *Official Index* established for such names by the Ruling given in the present *Opinion* :—

ACHORUTINI Börner, 1901, *Zool. Anz.* **24** : 13 (type genus : *Achorutes* Templeton, 1835, treated incorrectly as having *Achorutes viaticus* Tullberg, 1872, as type species)

ACHORUTINAE Börner, 1906, *Mitt. naturh. Mus. Hamburg* **23** : 159, 160 (type genus : *Achorutes* Templeton, 1835, treated correctly)

as having *Achorutes muscorum* Templeton, 1835, as type species)

BILOBIDAE Stach, 1951, *Apterygotan Faun. Poland*, Fam. Bilobidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 3 (type genus : *Biloba* Stach, 1949)

HYPOGASTRURINAE Börner, 1906, *Mitt. naturh. Mus. Hamburg* **23** : 160 (type genus : *Hypogastrura* Bourlet, 1839)

NEANURINAE Börner, June, 1901, *Zool. Anz.* **24** : 431 (type genus : *Neanura* MacGillivray, 1893)

NEOGASTRURIDAE Stach, 1949, *Apterygotan Faun. Poland*, Fam. Neogastruridae Brachystomellidae (*Act. Mon. Mus. Hist. nat. Krakow*) : 5 (type genus : *Neogastrura* Stach, 1949)

29. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Opinion* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

30. The present *Opinion* shall be known as *Opinion* Four Hundred and Thirty-Five (435) of the International Commission on Zoological Nomenclature.

DONE in London, this Seventh day of September, Nineteen Hundred and Fifty-Six.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

VOLUME 14. Part 23. Pp. 459—470

DIRECTION 62

Addition to the *Official List of Family-Group Names in Zoology* or, as the case may be, to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of the family-group names involved in the cases dealt with in Volume 14 of the work *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature*, other than names already dealt with either in *Opinions* included in that volume or in a separate *Direction*

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN DIRECTION 62

A. The Officers of the Commission

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President : Professor James Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.* (12th August 1953))

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

B. The Members of the Commission

(*arranged in order of precedence by reference to date of election or of most recent re-election, as prescribed by the International Congress of Zoology*)

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Mr. Francis HEMMING (*London, England*) (27th July 1948) (*Secretary*)

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Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*) (17th April 1950)

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Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, New York, N.Y., U.S.A.*) (12th August 1953)

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Dr. K. H. L. KEY (*Commonwealth Scientific and Industrial Research Organisation, Canberra, A.C.T., Australia*) (15th October 1954)

Dr. Alden H. MILLER (*Museum of Vertebrate Zoology, University of California, U.S.A.*) (29th October 1954)

Doc. Dr. Ferdinand PRANTL (*Národní Museum v Praze, Prague, Czechoslovakia*) (30th October 1954)

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Professor F. S. BODENHEIMER (*The Hebrew University, Jerusalem, Israel*) (11th November 1954)

Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

DIRECTION 62

ADDITION TO THE “ OFFICIAL LIST OF FAMILY-GROUP NAMES IN ZOOLOGY ” OR, AS THE CASE MAY BE, TO THE “ OFFICIAL INDEX OF REJECTED AND INVALID FAMILY-GROUP NAMES IN ZOOLOGY ” OF THE FAMILY-GROUP NAMES INVOLVED IN THE CASES DEALT WITH IN VOLUME 14 OF THE WORK “ OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE ”, OTHER THAN NAMES ALREADY DEALT WITH EITHER IN “ OPINIONS ” INCLUDED IN THAT VOLUME OR IN A SEPARATE “ DIRECTION ”

RULING :—(1) The under-mentioned family-group names involved in cases dealt with in Volume 14 of the work *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* are hereby placed on the *Official List of Family-Group Names*

in Zoology with the Name Numbers severally specified below :—

- (a) STENTORIDAE (correction of STENTORINA) Stein (S.F.W.), 1867 (type genus : *Stentor* Oken, 1815) (Class Ciliophora) (*Opinion* 418) (Name No. 168) ;
- (b) LONSDALEIIDAE (correction of LONSDALEIDAE) Grabeau, 1931 (type genus : *Lonsdaleia* M^cCoy, 1849) (Class Anthozoa) (*Opinion* 419) (Name No. 169) ;
- (c) DICTYOCLOSTIDAE Stehli, 1954 (type genus : *Dictyoclostus* Muir-Wood, 1930) (Class Brachiopoda) (*Opinion* 419) (Name No. 170) ;
- (d) PRODUCTIDAE Gray (J.E.), 1840 (type genus : *Productus* Sowerby (J.), 1814) (Class Brachiopoda) (*Opinion* 419) (Name No. 171) ;
- (e) SCHIZOPHORIIDAE Schuchert & LeVene, 1929 (type genus : *Schizophoria* King, 1850) (Class Brachiopoda) (*Opinion* 419) (Name No. 172) ;
- (f) ECHINOCONCHIDAE Stehli, 1954 (type genus : *Echinoconchus* Weller (S.), 1914) (Class Brachiopoda) (*Opinion* 420) (Name No. 173) ;
- (g) GASTRIOCERATIDAE (correction of GASTRIOCERAE) Hyatt, 1884 (type genus : *Gastrioceras* Hyatt, 1884) (Class Cephalopoda) (*Opinion* 420) (Name No. 174) ;
- (h) GONIATITIDAE (correction of GONIATITEA) de Haan, 1825 (type genus : *Goniatites* de Haan, 1825) (Class Cephalopoda) (*Opinion* 420) (Name No. 175) ;

- (i) MARTINIINAE Waagen, 1883 (type genus : *Martinia* McCoy, 1844) (Class Brachiopoda) (*Opinion* 421) (Name No. 176).

(2) The under-mentioned family-group names are hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* with the Name Numbers severally specified below :—

- (a) STENTORINA Stein (S.F.W.), 1867 (type genus : *Stentor* Oken, 1815) (an Invalid Original Spelling for STENTORIDAE) (Class Ciliophora) (*Opinion* 418) (Name No. 206) ;
- (b) LONSDALEIDAE Grabau, 1931 (type genus : *Lonsdaleia* McCoy, 1849) (an Invalid Original Spelling for LONSDALEIIDAE) (Class Anthozoa) (*Opinion* 419) (Name No. 207) ;
- (c) GASTRIOCERAE Hyatt, 1884 (type genus : *Gastrioceras* Hyatt, 1884) (an Invalid Original Spelling for GASTRIOCERATIDAE) (Class Cephalopoda) (*Opinion* 420) (Name No. 208) ;
- (d) GONIATITEA de Haan, 1825 (type genus : *Goniatites* de Haan, 1825) (an Invalid Original Spelling for GONIATITIDAE) (Class Cephalopoda) (*Opinion* 420) (Name No. 209).

I. THE STATEMENT OF THE CASE

The present *Direction* contains Rulings given by the International Commission on Zoological Nomenclature on the family-group-name implications of all cases involved in the *Opinions*

included in Volume 14 of the *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature*, other than those cases where those implications were dealt with in the *Opinions* concerned or in a separate *Direction* (*Direction* 14). The proposals on which the decisions given in the present *Direction* were based, which were drawn up in consultation with specialists in the groups concerned, were submitted to the Commission by the Secretary on 18th December 1956. The paper so submitted was as follows :—

Proposed addition to the “ Official List of Family-Group Names in Zoology ” or, as the case may be, to the “ Official Index of Rejected and Invalid Family-Group Names in Zoology ” of the family-group names involved in the cases dealt with in Volume 14 of the “ Opinions and Declarations rendered by the International Commission on Zoological Nomenclature ”, other than names already dealt with either in those “ Opinions ” or in a separate “ Direction ”

By FRANCIS HEMMING, C.M.G., C.B.E.

(Secretary to the International Commission on Zoological Nomenclature)

The purpose of the present paper is to lay before the International Commission on Zoological Nomenclature the family-group-name problems involved in the cases dealt with in *Opinions* 417 to 435 which collectively will form Volume 14 of the *Opinions and Declarations* Series, other than such problems in those cases which were dealt with in the *Opinions* concerned or in subsequent *Directions*. Recommendations are submitted in regard to those names on which action is still required in order to comply with the General Directive issued to the Commission by the International Congress of Zoology regarding the placing on the *Official List of Family-Group Names in Zoology* or, as the case may be, on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of family-group names involved in cases relating to individual names dealt with in *Opinions*.

2. Volume 14 of the *Opinions and Declarations* Series differs from its predecessors in that the majority of the *Opinions* comprised in it

are based on the applications submitted after the Fourteenth International Congress of Zoology, Copenhagen, 1953, and in consequence the family-group-name problems involved were dealt with by the applicants in the papers submitted to the International Commission which was accordingly thus enabled to deal with those problems in the *Opinions* concerned. Thus, the present volume contains thirteen *Opinions* in which family-group-names are involved and in the case of eight of these the requisite action was taken by the Commission in the *Opinion* concerned. The eight *Opinions* in question were: *Opinions* 422—424, 426, 431, 433—435. In another case (*Opinion* 426) the family-group-name problems involved have since been dealt with in a *Direction* (*Direction* 14). There are therefore only four *Opinions* comprised in the present volume on which action at the family-group-name level is now required. The *Opinions* concerned are *Opinions* 418—421. In the case of the remaining six *Opinions* (*Opinions* 417, 425, 427, 429, 430, 432) included in the present volume no family-group-name problems are involved.

3. The four *Opinions* in respect of which action at the family-group-name level is now required deal with names belonging to the following Classes:—Anthozoa (*Opinion* 419); Brachiopoda (*Opinions* 419, 420, and 421); Cephalopoda (*Opinion* 420); Ciliophora (*Opinion* 418). The required information in regard to the family-group names concerned was obtained from the specialists by whom the applications had originally been submitted in every case except that relating to the family-group name in the Class Ciliophora. In this latter case the original applicant (Professor Harold Kirby) was dead and the requisite reference for the well-known family name involved was ascertained in the Office of the Commission. The specialists from whom the relevant information was obtained in regard to the other names involved, to whom the grateful thanks of the International Commission are due, were the following:—

Dr. C. J. Stubblefield (*Geological Survey and Museum, London*)
(Anthozoa; Cephalopoda);

Dr. Helen Muir-Wood (*British Museum (Natural History), London*)
(Brachiopoda).

4. Particulars of the family-group-name problems involved in the four *Opinions* referred to above are given in a note attached to the present paper as an Annexé. In each case particulars are given of the action which it is recommended that the International Commission should now take in discharge of the obligations imposed upon it by the General Directive of the International Congress of Zoology referred to in the opening paragraph of the present paper.

ANNEXE

Survey of the family-group-name problems involved in connection with "Opinions" comprised in Volume 14 of the "Opinions and Declarations" Series on which action requires to be taken in discharge of the obligations imposed upon the International Commission on Zoological Nomenclature by the General Directive relating to the placing of family-group names on the "Official List" and "Official Index" of names of that category issued by the International Congress of Zoology

OPINION 418 (*Stentor* Oken, 1815) (Class Ciliophora) : The following action is required :—

(1) Name to be placed on the *Official List* :—

STENTORIDAE (correction of STENTORINA) Stein (S.F.W.), 1867, *Organ. Infus.* 2 : 217 (type genus : *Stentor* Oken, 1815) ;

(2) Name to be placed on the *Official Index* :—

STENTORINA Stein (S.F.W.), 1867 [reference as above] (an Invalid Original Spelling for STENTORIDAE) ;

OPINION 419 (Martin names for certain species of Anthozoa and Brachiopoda) : The following action is required :—

(1) Names to be placed on the *Official List* :—

(a) LONSDALEIIDAE (correction of LONSDALEIDAE) Grabau, 1931, *Nat. Hist. Centr. Asia* 4 : 42 [a unit of the work *Central Asiatic Expeditions* published by the *Amer. Mus. Nat. Hist.*, New York] (type genus : *Lonsdaleia* McCoy, 1849) (Class Anthozoa) ;

(b) DICTYOCLOSTIDAE Stehli, 1954, *Bull. amer. Mus. nat. Hist.* 105 (3) : 316 (type genus : *Dictyoclostus* Muir-Wood, 1930) (Class Brachiopoda) ;

(c) PRODUCTIDAE Gray (J.E.), 1840, *Syn. Contents Brit. Mus.* (ed. 42) : 143, 151 (type genus : *Productus* Sowerby (J.), 1814) (Class Brachiopoda) ;

- (d) SCHIZOPHORIIDAE Schuchert & LeVene, 1929, *Foss. Cat.* 1(*Anim.*), Part 42 : 15 (type genus : *Schizophoria* King, 1850) (Class Brachiopoda) ;

(2) Name to be place on the *Official Index* :—

- LONSDALEIDAE Grabau, 1931 [reference as above] (an Invalid Original Spelling for LONSDALEIIDAE) ;

OPINION 420 (Martin names for certain species of Brachiopoda and Cephalopoda) : The following action is required :—

(1) Names to be placed on the *Official List* :—

- (a) ECHINOCONCHIDAE Stehli, 1954, *Bull. amer. Mus. nat. Hist.* **105** (3) : 326 (type genus : *Echinoconchus* Weller (S.), 1914) (Class Brachiopoda) ;
- (b) GASTRIOCERATIDAE (correction of GASTRIOCERAE) Hyatt, 1884, *Proc. Boston Soc. nat. Hist.* **22** : 325 (type genus : *Gastrioceras* Hyatt, 1884) (Class Cephalopoda) ;
- (c) GONIATITIDAE (correction of GONIATITEA) de Haan, 1825, *Spec. phil. inaug. exhib. Mon. Ammon. Goniat.* : 156 (type genus : *Goniatites* de Haan, 1825) (Class Cephalopoda) ;

(2) Names to be placed on the *Official Index* :—

- (a) GASTRIOCERAE Hyatt, 1884 [reference as above] (an Invalid Original Spelling for GASTRIOCERATIDAE) ;
- (b) GONIATITEA de Haan, 1825 [reference as above] (an Invalid Original Spelling for GONIATITIDAE) ;

OPINION 421 (*Martinia* M^CCoy, 1844) (Class Brachiopoda) : The following action is required :—

Name to be placed on the *Official List* :—

- MARTINIINAE Waagen, 1883, *Pal. ind.* (13) *Salt Range Fossils* **1** : 524 (type genus : *Martinia* M^CCoy, 1844) (Class Brachiopoda).

2. Registration of the present application : Upon the receipt of Mr. Hemming's paper containing proposals concerted with specialists in the groups concerned for dealing with the family-group name implications involved in the cases dealt with in the *Opinions* comprised in Volume 14 of the *Opinions and Declarations* Series, the question so submitted was allotted the Registered No. Z.N.(S.) 1179.

II. THE DECISION TAKEN BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

3. Issue of Voting Paper V.P.(O.M.)(56)29 : On 18th December 1956 a Voting Paper (V.P.(O.M.)(56)29) was issued in which each Member of the Commission was asked (1) to state whether he agreed " that in conformity with the General Directive relating to the recording on the various *Official Lists* and *Official Indexes* of decisions in regard to particular names and particular books issued to the International Commission by the Thirteenth International Congress of Zoology, Paris, 1948, and with the General Directive supplementary thereto on the subject of family-group names issued to the Commission by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the entries relating to the family-group names involved in the cases dealt with in *Opinions* 417—435, being the *Opinions* included in Volume 14 of the work *Opinions and Declarations*, as recommended in the Annexe to the paper numbered Z.N.(S.) 1179, submitted by the Secretary simultaneously with the present Voting Paper, be made in the *Official List* and *Official Index* for the names of taxa belonging to the family-group, as there proposed " and (2) if he did not agree as regards any given item, to indicate that item.

4. The Prescribed Voting Period : As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 18th January 1957.

5. Particulars of the Voting on Voting Paper V.P.(O.M.)(56)29 : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(56)29 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-four (24) Commissioners (arranged in the order in which Votes were received) :*

Riley ; Mayr ; Sylvester-Bradley ; Holthuis ; Hering ;
do Amaral ; Lemche ; Bradley (J.C.) ; Miller ; Key ;
Jaczewski ; Prantl ; Esaki ; Boschma ; Mertens ; Stoll ;
Tortonese ; Cabrera ; Vokes ; Hemming ; Kühnelt ;
Bodenheimer ; Bonnet ; Dymond ;

(b) *Negative Votes :*

None ;

(c) *Prevented from Voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

(d) *Voting Papers not returned :*

None.

6. Declaration of Result of Vote : On 19th January 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P. (O.M.)(56)29, signed a Certificate that the Votes cast were as set out in paragraph 5 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

7. Preparation of the Ruling given in the present Direction : On 6th February 1957, Mr. Hemming prepared the Ruling given in the present *Direction* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(O.M.)(56)29.

8. The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present case, and the present *Direction* is accordingly hereby rendered in the name of the said International Commission by the under-signed Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, in virtue of all and every the powers conferred upon him in that behalf.

9. The present *Direction* shall be known as *Direction Sixty-Two (62)* of the International Commission on Zoological Nomenclature.

DONE in London, this Sixth day of February, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

**OPINIONS AND DECLARATIONS
RENDERED BY THE INTER-
NATIONAL COMMISSION ON
ZOOLOGICAL NOMENCLATURE**

Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

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Edited by

FRANCIS HEMMING, C.M.G., C.B.E.
Secretary to the Commission

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Also published with this Part : Title Page, Foreword ;
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE OPINIONS, DIRECTIONS AND DECLARATIONS PUBLISHED IN THE PRESENT VOLUME

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(12th August 1953)

Vice-President : Senhor Dr. Afranio do AMARAL (*Sao Paulo, Brazil*) (12th August 1953)

Secretary : Mr. Francis HEMMING (*London, England*) (27th July 1948)

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(Arranged in order of precedence by reference to date of election or of most recent re-election,
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(6th November 1954)

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Massachusetts, U.S.A.*) (4th December 1954)

Professor Enrico TORTONESE (*Museo di Storia Naturale "G. Doria," Genova, Italy*)
(16th December 1954)

Corrigenda

- page 55. First line : substitute “ Saint-Hilaire, E. for “ Saint-Hilaire, I.”.
- page 75. Ruling (4)(c), line 3 : insert “ Martin, 1809 ” after the name “ *productus* ”.
- page 75. Ruling (4) (d), line 3, insert “ Martin, 1809 ” after the name “ *semireticulatus* ”.
- page 153. Line 19 : substitute “ G. Winston Sinclair ” for “ J. Winston Sinclair ”.
- page 284. Footnote 2, line 2 : substitute “ *Tubulanus* ” for “ *Tubulans* ”.
- page 376. Ruling (4), line 5 : substitute “ *Megasystopha* ” for “ *Megasystophia* ”.
- page 386. Paragraph 4, last line : substitute “ 9 ” for “ 19 ”.
- page 428. Ruling 1(b)(i), line 1 : substitute “ Tullberg ” for “ Tulberg ”.
- page 462. Ruling (1)(b), line 2 : substitute “ Grabau ” for “ Grabeau ”.

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