



THE JOURNAL OF THE  
ROYAL ANTHROPOLOGICAL INSTITUTE  
OF GREAT BRITAIN AND IRELAND

Volume 40, Part 1  
1910

Printed by George Bell and Sons, London  
and  
Sold on behalf of the Institution by the  
General Manager, The Institution, 21, Queen's  
Square, London, W.1



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

**VOLUME 17**

*Edited by*

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

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

**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7

1957—1958

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### 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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## FOREWORD

The present volume—the seventeenth in the present Series—contains the eighth instalment of *Opinions*, *Declarations* and *Directions* adopted by the International Commission on Zoological Nomenclature since the close of the Fourteenth International Congress of Zoology, Copenhagen, 1953. The present volume contains twenty *Opinions* (*Opinions* 481—500), in respect of one of which (*Opinion* 485) there is also a Supplementary Resolution. The volume contains also two *Declarations* (*Declarations* 34 and 35). In addition, during the same period two early volumes (Volumes 2 and 3) have been completed, the whole of thirteen other volumes (Volumes 4 to 16) have been published, the present volume has been completed and units of one further volume (Volume 18) have also been published; the remaining Parts of that volume and the opening Parts of Volume 19 are in the press. The volumes in question contain *Opinions* and *Declarations* adopted by the Commission, either in Paris in 1948 or by postal votes taken at later dates, together with *Directions* of which the greater number embody decisions on certain subsidiary matters. In addition, two Sections (Sections C and D) of Volume 1, each the equivalent of a complete volume have been published, a third Section (Section E) has been completed, except for its concluding (index) Part and units of a further Section (Section F) have been published and further units are in the press. All the units of the above Sections of Volume 1 are devoted to *Directions* embodying decisions taken by the Commission in the course of the review of the *Opinions* rendered in the period up to the end of 1936 which it was charged by the Thirteenth International Congress of Zoology, Paris, 1948, to undertake. Publication of the units specified above commenced in January 1954 and during the period of just over four years concerned the total number of units published amounts to 418 (*Opinions*, 306; *Declarations*, 23; *Directions*, 89).

2. The immediately preceding volume contained the major part of the *Opinions* required for the promulgation of the decisions of the Commission on applications originally published in 1955 in Volume 11 of the *Bulletin of Zoological Nomenclature*. The

*Opinions* included in the present volume contain decisions on all the remaining applications originally published in the above volume of the *Bulletin*, with the exception of four, as regards each of which special difficulties had delayed the taking of a decision by the Commission. A start also has been made in the present volume in the publication of *Opinions*—six in number—embodying decisions on applications published in the next succeeding volume (Volume 12) of the *Bulletin*. The present volume contains also two *Opinions* based upon applications originally published in Volume 6 of the *Bulletin* and one upon an application originally published in Volume 9, all being concerned with cases on which for one reason or another the Commission had found it necessary for a time to postpone its decision.

3. Of the two *Declarations* included in the present volume, the first (*Declaration* 34) was concerned to resolve the procedure to be adopted in cases where in the case of a proposal involving the possible use of the Commission's Plenary Powers a majority of the Commission voted in favour of the action recommended but the majority so obtained for that proposal did not amount to one of two votes out of every three cast. The second of the *Declarations* in question (*Declaration* 35) contained a clarification of the expression "syntype" as used in the *Règles*.

4. The family-group-name problems arising in connection with the cases dealt with in the present volume were dealt with in the *Opinions* concerned, and in consequence it was not found necessary to include any *Directions* in the present volume.

5. The present volume comprises 504 pages (T.P.—XVI, i—xxvi, 1—452, 104A—104J). This volume is of substantially the same size as previous volumes.

6. Of the twenty *Opinions* included in the present volume, one deals simultaneously with names belonging to two different Classes in the Animal Kingdom, thus bringing the total number of cases up to twenty-one. 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 be twenty-eight.



7. One of the applications dealt with in the present volume was concerned with the status of a zoological work and twenty with individual names. Of this latter group, seventeen (85 per cent.) involved the use by the Commission of its Plenary Powers. The use of the Plenary Powers was not involved in the application relating to the status of a zoological work.

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>
Crustacea	1	—	1
Trilobita	3	—	3
Insecta	4	1	5
Gastropoda	2	—	2
Pelecypoda	2	1	3
Cephalopoda	1	—	1
Brachiopoda	1	—	1
Pisces	1	1	2
Reptilia	1	—	1
Aves	1	—	1
Totals	17	3	20

## VIII

9. When the twenty-eight 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>
Australia	1
Canada	1
Czechoslovakia	1
Denmark	1
Germany	1
New Zealand	3
Norway	1
United Kingdom	12
United States of America	7
<b>Total</b>	<b>28</b>

10. By the Rulings given in the *Opinions* comprised in the present volume a total of 151 names have been added to the *Official Lists* and corresponding *Official Indexes* relating to specific names, generic names, family-group names, and the

title of one zoological work was added to the *Official List*. 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	35	13
Generic Names	25	47
Family-Group Names	14	17
Titles of Works	1	—
Totals	75	77

11. The twenty cases dealing with individual names published in the present volume contain 118 comments from interested specialists. In some instances these comments are joint comments from two or more specialists. When account is taken of this fact, a total number of 132 specialists contributed comments on cases relating to individual names dealt with in the present volume. In addition, two comments were received on the status of a zoological work.

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>
Crustacea	3
Trilobita	12
Insecta	55
Gastropoda	23
Pelecypoda	9
Cephalopoda	6
Brachiopoda	1
Pisces	4
Reptilia	4
Aves	1
Total	118

13. When the authors of the comments contained in the *Opinions* 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 relating to individual names, by country of residence of the specialists concerned**

<i>Country of Residence</i>	<i>Number of Comments</i>
Argentina	1
Australia	2
Belgian Congo	1
Belgium	1
Brazil	2
Canada	4
Czechoslovakia	1
Denmark	4
France	4
Germany	11
India	1
Italy	1
Kenya	2
Madagascar	1
Netherlands	1
New Zealand	2
Norway	3
Poland	1
Sweden	1
Switzerland	1
Trinidad	1
Union of South Africa	2
Union of Soviet Socialist Republics	1
United Kingdom	32
United States of America	50
Venezuela	1
<b>Total</b>	<b>132</b>

14. As in the case of preceding volumes in this series, the Commission is indebted to Miss Mary Cosh, M.A., 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.

*4th March 1958.*

## TABLE OF CONTENTS

## Declarations

	<i>Page</i>
DECLARATION 34 Clarification of the procedure to be followed by the International Commission on Zoological Nomenclature when at the conclusion of a vote on an application for the use of its Plenary Powers it is found that a majority but not a two-thirds majority of the Members of the Commission voting thereon has voted in favour of the application in question .. .. .	i—xii
DECLARATION 35 Clarification of the meaning of the expression "syntype" as used in the <i>Règles</i> ..	xiii—xxvi

## Opinions

OPINION 481 Emendation under the Plenary Powers to <i>Lernaeocera</i> of the generic name <i>Lerneocera</i> and designation under the same Powers of a type species in harmony with accustomed usage for the genus so named (Class Crustacea, Order Copepoda) .. ..	1
OPINION 482 Rejection of a proposal for the suppression under the Plenary Powers of the generic name <i>Caenisites</i> Buckman, 1925 (Class Cephalopoda, Order Ammonoidea) .. .. .	15
OPINION 483 Determination of the specimen to be accepted as the lectotype of the nominal species <i>Megathymus aryxna</i> Dyar, 1905 (Class Insecta, Order Lepidoptera) and matters incidental thereto ..	41
OPINION 484 Addition to the <i>Official List of Generic Names in Zoology</i> and to the <i>Official List of Family-Group Names in Zoology</i> respectively of the generic name <i>Chama</i> Linnaeus, 1758, and the family-group name CHAMIDAE (correction of CAMACEA) Blainville, 1825 (Class Pelecypoda).. .. .	73

	<i>Page</i>
OPINION 485 Determination of the relative priority to be assigned to the names <i>Cheirodon axelrodi</i> Schultz (L.P.) and <i>Hyphessobrycon cardinalis</i> Myers (G.S.) & Weitzman (S.H.) (Class Pisces), both being names published in February 1956 .. .. .	87
Supplementary Resolution relating to ..	104A—104J
OPINION 486 Validation under the Plenary Powers as from Morris (1845) of the specific name <i>brachythaerus</i> , as published in the combination <i>Productus brachythaerus</i> and designation under the same Powers of the species so named to be the type species of the genus <i>Terrakea</i> Booker, 1930 (Class Brachiopoda) ..	105
OPINION 487 Validation under the Plenary Powers of the generic names <i>Gempylus</i> Cuvier, 1829 (Class Pisces) and <i>Acinaces</i> Gerstaecker, 1858 (Class Insecta, Order Coleoptera) .. .. .	119
OPINION 488 Determination of the status under Rule (g) in Article 30 of the <i>Règles</i> of the action taken by Curtis (J.) in the Second Edition of the work entitled <i>A Guide to an Arrangement of British Insects</i> published in 1837 .. .. .	143
OPINION 489 Validation under the Plenary Powers of the generic name <i>Turbinella</i> Lamarck, 1799 (Class Gastropoda), as the name for the Sacred Chank Shell of India .. .. .	155
OPINION 490 Action under the Plenary Powers to preserve for use in its accustomed sense the generic name <i>Elaphe</i> Fitzinger, 1833 (Class Reptilia) .. ..	179
OPINION 491 Interpretation under the Plenary Powers of the nominal species <i>Palaeopsylla daea</i> Dampf, 1910 (Class Insecta, Order Siphonaptera) for the purpose of validating accustomed usage .. .. .	197



- OPINION 492 Suppression under the Plenary Powers of the family-group name AUCELLIDAE Lahusen, 1897, and rejection of an application for use of the same Powers to validate the generic name *Aucella* Keyserling, 1846, by suppressing the generic name *Buchia* Rouillier, 1845 (Class Lamellibranchiata) .. 209
- OPINION 493 Designation under the Plenary Powers of a type species in harmony with established usage for the genus *Torquesia* Douvillé, 1929 (Class Gastropoda) .. .. . 255
- OPINION 494 Validation under the Plenary Powers of the generic name *Diloba* Boisduval, 1840, and designation under the same Powers of a type species in harmony with established usage for the genus *Episema* Ochseneimer, 1816 (Class Insecta, Order Lepidoptera) .. .. . 265
- OPINION 495 Designation under the Plenary Powers of a type species in harmony with accustomed usage for the nominal genus *Unio* Philipsson, 1788 (Class Pelecypoda) and validation under the same Powers of the family-group name MARGARITIFERIDAE Haas, 1940 287
- OPINION 496 Use of the Plenary Powers to secure the continued use in their accustomed sense of the generic names *Olenus* Dalman, [1827], and *Paradoxides* Brongniart, 1822 (Class Trilobita) .. .. . 323
- OPINION 497 Suppression under the Plenary Powers of the specific name *munda* Kuhl, 1820, as published in the combination *Proc.[ellaria] munda* and on the same occasion in the combination *Nectris munda* (Class Aves) .. .. . 349

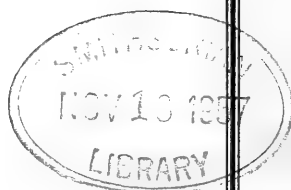
	<i>Page</i>
OPINION 498 Validation under the Plenary Powers of the specific name <i>tuberculatus</i> , as published by Hall (J.W.) in 1859 in the combination <i>Acidaspis tuberculatus</i> , and use of the same Powers to provide an assured basis for the use of the generic name <i>Leonaspis</i> Richter (R.) & Richter (E.), 1917 (Class Trilobita) .. .. .	361
OPINION 499 Designation under the Plenary Powers for the nominal genus <i>Protopeltura</i> Brögger, 1882, of a type species in harmony with accustomed usage and validation under the same Powers of the emendation to <i>Peltura</i> of the generic name <i>Peltoura</i> Milne Edwards (H.), 1840 (Class Trilobita) .. .. .	377
OPINION 500 Validation under the Plenary Powers of the spelling PIERIDAE for the name of the family-group taxon having the genus <i>Pieris</i> Schrank, 1801, as its type genus (Class Insecta, Order Lepidoptera) ..	395
Corrigenda .. .. .	425
Index to authors of applications dealt with in the present volume and of comments on those applications ..	427
Subject Index .. .. .	431
Particulars of dates of publication of the several parts in which the present volume was published .. .. .	451
Instructions to binders .. .. .	452

# 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 17. Part 2. Pp. i—xii



## DECLARATION 34

Clarification of the procedure to be followed by the International Commission on Zoological Nomenclature when at the conclusion of a vote on an application for the use of its Plenary Powers it is found that a majority but not a two-thirds majority of the Members of the Commission voting thereon has voted in favour of the application in question

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1957

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

## **DECLARATION 34**

**CLARIFICATION OF THE PROCEDURE TO BE FOLLOWED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE WHEN AT THE CONCLUSION OF A VOTE ON AN APPLICATION FOR THE USE OF ITS PLENARY POWERS IT IS FOUND THAT A MAJORITY BUT NOT A TWO-THIRDS MAJORITY OF THE MEMBERS OF THE COMMISSION VOTING THEREON HAS VOTED IN FAVOUR OF THE APPLICATION IN QUESTION**

**DECLARATION :—**(1) Where in any vote by the International Commission on Zoological Nomenclature on an application involving the possible use of its Plenary Powers it is found at the close of the Prescribed Voting Period that a majority, but not a two-thirds majority, of the Members of the Commission voting thereon has voted in favour of the use of the foregoing Powers, the vote so taken shall be treated as being a preliminary vote only, and it shall be the duty of the Secretary (a) to report the result of the vote to the Commission as soon as possible, (b) simultaneously therewith to re-submit the proposal for the use of the Plenary Powers to the Commission for

final decision, and (c) at the same time to furnish a statement setting out the affirmative action on the names involved in the case which would require to be taken in the event of the rejection of the proposal for the use of the Plenary Powers.

(2) In any case resubmitted to the Commission under (1) above, the procedure to be followed at the close of the Prescribed Voting Period is to be as follows :—

- (a) If not less than two out of every three Members of the Commission voting have voted in favour of the use of the Plenary Powers, the proposal in question is to be treated as having been approved and adopted ;
- (b) If less than two out of every three Members of the Commission voting have voted in favour of the use of the Plenary Powers, that proposal is to be treated as having been rejected and in its place the proposal involving affirmative action in the opposite sense submitted under (1)(c) above is to be treated as having been approved and adopted.

## I. THE SUBJECT MATTER OF THE PRESENT “ DECLARATION ”

The present *Declaration* is concerned with the question of the procedure to be adopted by the International Commission on

Zoological Nomenclature when at the conclusion of a vote on an application for the use of its Plenary Powers it is found that a majority of the Members of the Commission voting thereon, but not a two-thirds majority, has voted in favour of the application in question. This problem arose in September 1956 when on the close of the Prescribed Voting Period for the Voting Paper (V.P.(56)16) issued in connection with an application for the validation of the generic name *Aucella* Keyserling, 1846 (Class Lamellibranchiata) by the suppression under the Plenary Powers of the older name *Buchia* Rouillier it was found that a majority but not a two-thirds majority of the Commission had voted in favour of the use of the Plenary Powers in the manner proposed.<sup>1</sup> The situation so disclosed was placed before the Commission by the Secretary in a paper in which he asked for the adoption of a *Declaration* clarifying the procedure to be adopted in circumstances of this kind. The paper so prepared, which was submitted on 28th March 1957, was as follows :—

**Proposed adoption of a “ Declaration ” providing for the procedure to be followed where a proposal for the use of the Plenary Powers is approved by a majority, but not by a two-thirds majority, of the Members of the Commission voting thereon**

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 secure in the form of a *Declaration* a Ruling as to the procedure to be followed where a proposal involving the possible use of the Commission's Plenary Powers is approved by a majority of the Members of the Commission voting thereon but the majority vote so given is not a two-thirds majority and in consequence is not sufficient to secure the use of the foregoing Powers. This problem has arisen in the voting on Voting Paper V.P.(56)16 on the question whether the Plenary Powers should be used for validating the generic name *Aucella* Keyserling, 1846, by suppressing the generic name *Buchia* Rouillier, 1845 (Class Lamellibranchiata). In the absence of a Ruling on the question now raised, the above is a case on which it is impossible to reach a final decision. The foregoing individual case is taken only as an example in the present paper. Proposals for its settlement are not now submitted, this matter being

<sup>1</sup> As explained in the opening paragraph of the paper reproduced below, it was decided to postpone further consideration of the individual case here referred to, until after a decision had been taken on the question of the adoption of a *Declaration* on the lines of the present *Declaration*.

reserved until after a decision has been taken by the Commission on the question of procedure with which the present paper is concerned.<sup>2</sup> It will be sufficient to note here that with the foregoing Voting Paper I submitted two proposals, there styled Alternative "A" and Alternative "B" respectively. The proposal styled Alternative "A" was that the Plenary Powers should be used in the sense outlined above. The proposal styled Alternative "B" was that the request for the use of the Plenary Powers should be rejected and therefore that the normal provisions of the *Règles* should be applied in this case.

2. At the time when the Commission voted on the foregoing alternatives, its effective voting strength was twenty-four, one Member of the Commission being at that time on Leave of Absence. Of the twenty-four Commissioners who were eligible to vote on this case, fourteen (14) voted in favour of Alternative "A", nine (9) in favour of Alternative "B" and one failed to return his Voting Paper.

3. Thus, if the above had been a case taken under the normal procedure of the Commission, the proposal in favour of Alternative "A" would have been adopted (by 14 votes to 9 votes). But the above case was taken not under the ordinary procedure but under the Plenary Powers provisions which require that, in order to secure acceptance, a proposal for the use of the foregoing Powers must secure not less than two affirmative votes out of every three votes case (see, 1950, *Bull. zool. Nomencl.* 4 : 50—51). On this basis the proposal to use the Plenary Powers in the present case failed to secure acceptance.

4. During the period during which I have held the office of Secretary, there have been cases in which proposals for the use of the Plenary Powers have been rejected, but in each of these cases the majority of the Commission voted in favour of the rejection of the proposal in question. This is the first case in my experience in which a majority of the Members of the Commission voting thereon has voted in favour of the use of the Plenary Powers but the majority so secured has not been a two-thirds majority.

5. Up till 1948 proposals for the use of the Plenary Powers required for their acceptance a unanimous affirmative vote, but there was a provision under which a specially appointed Board of Three Members was to be set up to consider any case where there was a two-thirds, but not a unanimous, vote in favour of the use of the Plenary Powers. A Board so set up was empowered to take an effective decision, either for or against the use of the Plenary Powers, by a simple majority.

<sup>2</sup> Since the adoption of the present *Declaration*, further consideration has been given by the Commission to the *Aucella/Buchia* case, on which a decision has now been taken under the procedure here laid down. The decision so taken has now been embodied in *Opinion* 492. This is now in the press and will be published as Part 14 of the present volume.



When in 1948 the Paris Congress substituted the present two-thirds majority rule for voting on proposals involving the use of the Plenary Powers in place of the obsolete undemocratic *Liberum Voto* formerly in force, it revoked the position which had till then been applicable in cases where a majority, but not a sufficient majority, had been in favour of the use of the Plenary Powers. In taking this decision, the Paris Congress left without provision the case where, as has now happened, a proposal for the use of the Plenary Powers secures a majority of votes in the Commission but the majority so secured is not a two-third's majority. This omission was no doubt an inadvertent remanet from the old days when the Commission was content to take a negative decision on a particular case without following up that decision with an affirmative decision as to the action to be taken in the case in question. In the present case I attempted to anticipate the possibility of such a situation arising, by submitting—as Alternative “B”—a proposal in the opposite sense to the proposal for the use of the Plenary Powers submitted by the applicant. This procedure did not meet the needs of this particular case for Alternative “B” was negatived by a majority of fourteen (14) votes to nine (9) votes, and as that proposal was not one involving the use of the Plenary Powers, a simple majority was sufficient to secure its rejection.

6. Thus, a stalemate has been reached for the proposal in favour of the use of the Plenary Powers, though approved by the majority of the Commissioners voting, has failed to secure the requisite two-thirds majority, while the opposite proposal (for the acceptance of the name *Buchia*) has been rejected. It is evident that some means must be found for breaking the present deadlock and thus for providing a means for obtaining a decision not only in the *Buchia/Aucella* case but also in any similar cases which may occur in the future.

7. There appear to be two courses, the adoption of either of which would provide a procedural solution in cases of the present type. These courses are the following :—

**(a) Course (1)**

Under this course the Commission would adopt a *Declaration* in the following terms :—

- (a) Where in any vote on an application involving the possible use of the Commission's Plenary Powers it is found at the close of the Prescribed Voting Period that a majority, but not a two-thirds majority, of the Members of the Commission voting thereon has voted in favour of the use of the foregoing Powers, the vote so taken shall be treated as a preliminary

vote only, and it shall be the duty of the Secretary (i) to report the result of the vote to the Commission and (ii) simultaneously therewith to resubmit the proposal for the use of the Plenary Powers to the Commission for final decision, (iii) at the same time furnishing a statement setting out the affirmative action on the names involved in the case which would require to be taken in the event of the rejection of the proposal for the use of the Plenary Powers.

(b) In any case resubmitted to the Commission under the procedure specified in (a) above, the procedure to be followed at the close of the Prescribed Voting Period shall be as follows :—

(i) If not less than two out of every three Members of the Commission voting have voted in favour of the use of the Plenary Powers, the proposal in question is to be treated as having been approved and adopted by the Commission.

(ii) If less than two Members of the Commission out of every three voting have voted in favour of the use of the Plenary Powers, that proposal is to be treated as having been rejected and in its place the proposal involving affirmative action in the opposite sense submitted under (a)(iii) above is to be treated as having been approved and adopted.

#### (b) Course (2)

Under this course the Commission would adopt a *Declaration* in the following terms :—

Where in any case involving the possible use of the Commission's Plenary Powers it is found at the close of the Prescribed Voting Period that a majority, but not a two-thirds majority, of the Members of the Commission voting thereon has voted in favour of the use of the foregoing Powers, it shall be the duty of the Secretary (a) to sign a Certificate that the proposal for the use of the Plenary Powers has been rejected and (b) to prepare a Ruling setting out the affirmative action required in order to give effect to the decision taken in (a) above, provided that, where, in the opinion of the Secretary, there is any doubt as to the provisions to be included in that Ruling, it shall be open to him to submit the draft Ruling to the Commission for final approval before signing the Certificate in regard thereto.

8. Of the two courses outlined above I am of the opinion, as Secretary, that *Course (1)* is preferable to *Course (2)*, for under it an express decision would be taken by the Commission on the terms of the Ruling to be given in the case in question, whereas under *Course (2)* the Ruling to be prepared would rest only upon the fact that a majority vote in the opposite sense had failed to secure the two-thirds majority of the Commissioners voting needed for action under the Plenary Powers.

**2. Registration of the present application :** Upon the receipt of Mr. Hemming's paper the question of the adoption of a *Declaration* clarifying the procedure to be followed by the Commission in certain circumstances when dealing with applications for the use of the Plenary Powers was allotted the Registered No. Z.N.(S.) 1208.

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

**3. Issue of Voting Paper V.P.(O.M.)(57)3 :** On 28th March 1957 a Voting Paper (V.P.(O.M.)(57)3) was issued in which each Member of the Commission was invited to vote for one or other of the following courses : " COURSE (1) relating to the procedure to be followed in Plenary Powers cases where a majority,

but not a two-thirds majority, of the Members of the Commission voting, votes in favour of the use of those Powers, as set out in paragraph 7(a) of the paper bearing the Registered Number Z.N.(S.) 1208 submitted by the Secretary simultaneously with the present Voting Paper ” [i.e. in the paragraph numbered as above in the paper reproduced in the first paragraph of the present *Declaration*], or for “ COURSE (2) setting out a different procedure for adoption in the circumstances indicated above, as set out in paragraph 7(b) of the paper referred to above ”.

**4. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 28th April 1957.

**5. Particulars of the Voting on Voting Paper V.P.(O.M.)(57)3 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(57)3 was as follows :—

(a) *In favour of Course (1), twenty-one (21) Commissioners (arranged in the order in which Votes were received) :*

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

(b) *In favour of Course (2), two (2) Commissioners (arranged in the order in which Votes were received) :*

Mertens ; Miller ;

(c) *Prevented from voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

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

Key.

**6. Declaration of Result of Vote :** On 29th April 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(57)3, 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 21st May 1957, 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.(O.M.)(57)3.

**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 Thirty-Four (34)* of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-First day of May, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

Ref.

# 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 17. Part 4. Pp. xiii—xxvi

## DECLARATION 35

Clarification of the meaning of the expression "syntype"  
as used in the *Règles*



**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

**Price Nine Shillings and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN DECLARATION 35

### A. The Officers of the Commission

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

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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*)

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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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)



## DECLARATION 35

### CLARIFICATION OF THE MEANING OF THE EXPRESSION "SYNTYPE" AS USED IN THE "REGLES"

**DECLARATION** :—Where, in publishing a name for a new nominal species established without a designated holotype, an author (a) states that that nominal species is based upon certain specimens before him and/or upon certain descriptions or figures previously published under some other name and (b) elsewhere in the same paper identifies certain other specimens, whether before him or not, or certain other previously published descriptions or figures with the nominal species so described, the specimens, descriptions or figures so identified are not to be regarded as being "of equal nomenclatorial rank" with the specimens, descriptions or figures upon which the author states that that nominal species is based, and specimens, descriptions or figures so identified are not to be regarded as syntypes of the nominal species in question.

#### I. THE STATEMENT OF THE CASE

The present *Declaration* is concerned with the clarification of the meaning to be attached to the expression "syntype" as used in the *Règles*, a matter which was raised in connection with the determination of a lectotype selection for a particular species (*Megathymus aryxna* Dyar, 1905) in the Order Lepidoptera (Class Insecta) in an application submitted to the International Commission on Zoological Nomenclature in 1955 prepared jointly by Mr. Cyril F. dos Passos and Dr. Ernest L. Bell (both of the *American Museum of Natural History, New York*). At the concluding stage of the consideration of the foregoing application it was decided to deal separately with the question of principle involved by giving a *Declaration* on the interpretative problem so raised, at the same time in the light of that *Declaration* rendering an *Opinion* on the individual case concerned. In

accordance with the foregoing procedural decision a paper was prepared by the Secretary on the question of principle to be decided and this was submitted to the Commission simultaneously with the submission of a Voting Paper on the individual case raised by Mr. dos Passos and Dr. Bell. The decision taken on the first of these matters is embodied in the present *Declaration*, while that relating to the individual case involved has been embodied in *Opinion* 483, which is being published simultaneously with the present *Declaration*.

2. The paper dealing solely with the question of interpretation raised in the dos Passos/Bell application, which was prepared by the Secretary on 19th September 1956, was as follows :—

**Proposed adoption of a "Declaration" clarifying the Rules relating to the determination of the specimens to be accepted as syntypes for a nominal taxon established without a designated holotype**

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

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

In an application published on 30th December 1955 dos Passos (C.F.) & Bell (E.L.) (*Bull. zool. Nomencl.* **11** : 289—294) asked for a Ruling as to the specimen to be accepted as the lectotype of the nominal species *Megathymus aryxna* Dyar (H.G.), 1905 (Class Insecta, Order Lepidoptera). The point involved is of interest to specialists in the group concerned, for the specimens which are, or which have been claimed to be, syntypes of the foregoing nominal species are not currently regarded as being all conspecific with one another. Thus, depending upon which of the specimens concerned is to be accepted as having been first validly selected as the lectotype of the above nominal species, the name *Megathymus aryxna* Dyar, 1905, is either (a) a junior subjective synonym of the earlier name *Megathymus neumogeni* Edwards, 1882 (as is contended by the applicants in the present case and by Evans (W.H.) (1955, *Bull. zool. Nomencl.* **11** : 294) the leading authority on the HESPERIIDAE) or (b) the oldest available name for the species currently known by most specialists as *Megathymus evansi* Freeman, 1950 (as is contended by Stallings (D.B.) & Turner (J.R.)) (1955, *ibid.* **11** : 295—296).

2. Apart from the intrinsic interest of this case to specialists in this family of the Order Lepidoptera the present case raises an issue of

principle regarding the specimens to be regarded as syntypes in the case of a nominal species established without a designated holotype. In this connection it will be recalled that at Paris in 1948 the Thirteenth International Congress of Zoology gave directions that in future the International Commission on Zoological Nomenclature was not to give in *Opinions* relating to individual cases Rulings which either explicitly or implicitly gave interpretations of provisions in the *Règles* and that, where such a Ruling was necessarily involved in connection with the determination of an individual case, it should be given separately in a *Declaration* rendered concurrently with the *Opinion* dealing with the individual case concerned. Accordingly, under the foregoing General Directive it will be necessary for the Commission to render an interpretative *Declaration* as a preliminary to the adoption of an *Opinion* in regard to the individual name which forms the subject of the application submitted by dos Passos and Bell in the present case.

3. In this as in other cases involving questions of principle it will be best to consider the problem involved as constituting a separate issue. For this reason it has been decided to open a new Registered File (File Z.N.(S.) 1163) for the consideration of the question of principle with which the present note is concerned, the File bearing the Registered No. Z.N.(S.) 889 being restricted to the individual problem of the specimen to be accepted as the lectotype of *Megathymus aryxna*. In the present connection the papers relating to that case are however of interest as illustrating an actual case of the kind falling within the scope of the *Declaration* which—in one form or another—it is now proposed should be adopted. Attention is therefore called to the details of the problem as exhibited in the case of the name *Megathymus aryxna* Dyar, on which the Commission is being invited to vote on the immediately following Voting Paper V.P.(56)38).

4. The problem at issue in the present case turns exclusively upon the question as to which of various specimens referred to in the original description of a new nominal species established without a designated holotype are to be regarded as syntypes of that nominal species and therefore as constituting the group of specimens from which alone a later author can validly select a lectotype for the nominal species in question. Before examining this question it may be convenient to recall that up to 1948 the expression “syntype” possessed only a customary meaning but that in that year the Thirteenth International Congress of Zoology at its meeting held in Paris decided to incorporate this expression into the *Règles*, at the same time giving it a precise definition. The definition so adopted was as follows:—“Syntype—One of a number of specimens of equal nomenclatorial rank which

formed all or part of the material before the original author, in those cases where that author did not designate or indicate a holotype" (1950, *Bull. zool. Nomencl.* 4 : 186).

5. In the class of case involved in the present instance two groups of specimens are involved, namely (1) certain specimens on which the author of the new nominal species states that he has based that nominal species and (2) certain other specimens also referred to in the original description. The question for decision is whether in such a case the specimens included in Group (2) are "of equal nomenclatorial rank" with the specimens included in Group (1) and therefore qualify under the definition of a "syntype" approved by the International Congresses of Zoology (as quoted in paragraph 4 above) to be looked upon as being syntypes of the nominal species in question. It appears to me that on no logical construction of the words "of equal nomenclatorial rank" can the specimens in Group (2) above be regarded as possessing the same status as those comprised in Group (1). On this view the only syntypes would be the specimens comprised in Group (1), those in Group (2) failing to qualify as such by reason of not being "of equal nomenclatorial rank" with those in Group (1).

6. It has occasionally been argued that, in order to qualify as a syntype, a specimen must have been actually before the eyes of the author when naming the nominal species concerned. There is however no foundation for this contention, for, when dealing with the question of the specimens eligible to be selected as the lectotype of a nominal species established without a holotype the Thirteenth International Congress of Zoology, Paris, 1948, laid it down that the syntypes from which such a selection might be made by a later author might be either (a) specimens actually in front of the author concerned when drawing up his description or (b) descriptions or figures cited by the original author of the name in question (1950, *Bull. zool. Nomencl.* 4 : 74—76). This provision was confirmed by the Fourteenth International Congress of Zoology, Copenhagen, 1953, when it further reviewed the provisions of Article 31 of the *Règles* (1953, *Copenhagen Decisions zool. Nomencl.* 73—74, Decision 137(4)). It was provided that, where a previously published description or figure was so selected, that description or figure was to represent the lectotype. That a provision making a cited previously published figure eligible to rank as a syntype was a wise and necessary decision will be immediately apparent when it is recalled how large is the number of nominal species in various groups which in the early days were established exclusively upon figures. Further, even where a nominal species was established with a description which was based partly upon actual specimens before the eyes of the author when drawing up that description and partly upon previously published figures cited in that description,

it may often be convenient to select as the lectotype one of the previously figured specimens cited in the original description, for by making such a selection the later author is able to provide a figure of the lectotype, a matter of considerable convenience for other specialists.

7. I annexe to the present paper as Appendix 1 the draft of a *Declaration* which I recommend that the Commission should adopt in the light of the considerations advanced above. In Appendix 2 I annexe the draft of a *Declaration* of the kind which would be required if the Commission were to take the opposite view, namely (a) that in the interpretation of the description of a new nominal species established without a holotype it is of no significance that some only of the specimens referred to are stated by the author to have formed the basis of his description of the new nominal species in question, (b) that all the specimens referred to by the original author are therefore to be treated as being "of equal nomenclatorial rank" and are to be accepted as syntypes of the nominal species in question.

#### APPENDIX 1

##### **Draft of a "Declaration" clarifying the meaning of the expression "syntype" as defined in the "Règles"**

(Draft based on the assumption that, where in the description of a new nominal species that species is stated to be based upon certain specimens but in addition other specimens are mentioned, the latter specimens are not to be regarded as syntypes)

**Draft Declaration (Alternative "A")** :—Where in publishing a name for a new nominal species without a designated holotype, an author (a) states that that nominal species is based upon certain specimens before him and/or upon certain descriptions or figures previously published with some other name and (b) later in the same description identifies certain other specimens with the nominal species so described the specimens later so identified are not to be regarded as being "of equal nomenclatorial rank" with the specimens, descriptions or figures upon which the author had previously stated that that nominal species was based and specimens so identified are accordingly not to be regarded as syntypes of the nominal species in question.

## APPENDIX 2

**Draft of an Alternative “ Declaration ” clarifying the meaning of the expression “ syntype ” as defined in the “ Règles ”**

(Draft based on the assumption that, where in the description of a new nominal species an author states that that species is based upon certain specimens and in addition identifies certain other specimens with the species so described, the specimens so identified are to be regarded as being syntypes as well as the specimens upon which the species is stated to have been based)

**Draft Declaration (Alternative “ B ”)** :—Where an author in establishing a new nominal species states that that species is based upon certain specimens and/or upon certain descriptions or figures previously published with some other name and in addition in the same description identifies certain other specimens with the species so described, the specimens so identified are to be regarded as being “ of equal nomenclatorial rank ” with the specimens upon which the species has earlier been stated to have been established and the specimens so identified are therefore to be treated as being syntypes of that species equally with the specimens upon which the species had been stated to have been established.

**3. Registration of the present application :** At the time when it was decided to separate the question of the interpretation of the expression “ syntype ” from the remainder of the application relating to the individual case of the name *Megathymus aryxna* Dyar, the previously established Registered No. Z.N.(S.) 889 was retained for the problem associated with the above name and the new Registered No. Z.N.(S.) 1163 was allotted to the question of principle so separated therefrom.

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

**4. Issue of Voting Paper V.P.(56)37 :** On 1st October 1956 a Voting Paper (V.P.(56)37) was issued in which the Members of the Commission were invited to vote “ either for the adoption

of a *Declaration* in the terms set out in Appendix 1 to the paper numbered Z.N.(S.) 1163 submitted by the Secretary concurrently with the present Voting Paper (the dos Passos/Bell thesis) [i.e. in the paper reproduced in the first paragraph of the present *Declaration*] or in the terms set out in Appendix 2 to the paper referred to above (the Stallings/Turner thesis) ”.

**5. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 1st January 1957.

**6. Particulars of the Voting on Voting Paper V.P.(56)37 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)37 was as follows :—

(a) *In favour of the Course set out in Appendix 1 to the paper submitted with the above Voting Paper and styled Course (a) in that Voting Paper, twenty-one (21) :*

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

(b) *In favour of the Course set out in Appendix 2 to the paper referred to above and styled Course (b) in the Voting Paper issued, three (3) :*

Holthuis ; Mertens ; Sylvester-Bradley ;

(c) *Prevented from Voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

(d) *Voting Papers not returned :*

None.

**7. Declaration of Result of Vote :** On 2nd January 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)37, signed a Certificate that the Votes cast were as set out in paragraph 6 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.

**8. Certain drafting amendments suggested :** During the Prescribed Voting Period for Voting Paper V.P.(56)37 drafting amendments to the proposal set out in Appendix 1 to the paper submitted simultaneously with the above paper [i.e. in Appendix 1 to the paper reproduced in the present *Declaration*] were received from Dr. K. H. L. Key and Mr. P. C. Sylvester-Bradley. These were examined by the Secretary in the following Minute executed on 11th June 1957 :—

**Draft “Declaration” clarifying the provisions in the “Règles” relating to the field from within which a lectotype may be selected for a nominal species established without a designated holotype**

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

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

During the voting on Voting Paper V.P.(56)37 two members of the International Commission on Zoological Nomenclature (K. H. L. Key ; P. C. Sylvester-Bradley) submitted suggestions for the adoption of verbal amendments in the draft of the proposed *Declaration* relating to the field from within which a lectotype may be selected for a nominal species established without a holotype set out in Appendix 1 of the paper submitted simultaneously with the foregoing Voting Paper, the question which formed the subject of the vote then taken. Now that the Prescribed Voting Period in respect of the above Voting Paper has closed and the stage has been reached when it is necessary formally to prepare a *Declaration* giving effect to the vote taken thereon, it is necessary to examine in detail the drafting points which have been raised.

2. The drafting points raised by Dr. Key, all of which relate to the wording proposed for the second portion of the proposed *Declaration*



(i.e. the portion forming section (b) in the draft set out in the Appendix referred to above), may be summarised as follows :—

- (a) The word “later” as used in the opening phrase is unduly restrictive, for the reference to specimens other than those on which a nominal species is established (i.e. other than the stated syntypes) might not in every case appear later in the paper than the passage in which the specimens ranking as syntypes were formally specified. Dr. Key accordingly suggests that the word “later” should be replaced by the word “elsewhere”.
- (b) Dr. Key suggests that the proposed definition of the specimens which in any given case are to be excluded from the status of syntypes should be more precisely drawn in two directions. First, it is desirable that it should be made clear that this portion of the *Declaration*, like the portion which defines the specimens which are to be accepted as syntypes, should cover not only actual specimens but also any previously published descriptions or figures to which reference may be made by the author establishing the nominal species in question. Second—and consequential upon the above point—Dr. Key suggests that the words “whether before him or not” should be added after the word “specimens”, thus bringing this part of the definition into line with the portion discussed above.

3. Mr. Sylvester-Bradley, who voted against the adoption of a *Declaration* in the terms set in Appendix 1 of the paper referred to in paragraph 1 of the present Minute (preferring the alternative set out in Appendix 2 of the above paper), suggested that, if nevertheless the International Commission as a body were to approve the adoption of a *Declaration* in the terms of Appendix 1 (as in fact the Commission has done), it was desirable that the expression “is based upon” should be defined as closely as possible.

4. The drafting points raised by Dr. Key appear to me to be well taken. As regards the first, the word “later” in the draft is certainly, though unintentionally, too restrictive, a defect which, as Dr. Key has suggested, could be eliminated by the substitution for that word of the word “elsewhere”. The second of the two points raised by Dr. Key as summarised in paragraph 2(b) above draws attention to an inadvertent lack of symmetry in the draft submitted, for, if (as proposed in the draft) reference is to be made to “descriptions or figures previously published with some other name” in the definition of the units to be accepted as syntypes, a corresponding

phrase should certainly be inserted in the definition of the units to be excluded from the status of syntypes. In this latter category an author describing a new nominal species might easily refer to specimens which on some previous occasion he has examined but which are not actually before him at the time of writing the paper containing the description of the new species. The drafting addition suggested by Dr. Key should therefore be accepted.

5. The point raised by Mr. Sylvester-Bradley, raises considerations of a different order. It would, as he observes, be very helpful if it were possible to define the words "is based upon" in such a way as to eliminate the possibility of subsequent argument as to whether any given specimen or group of specimens referred to in the original description were among those which the nominal species concerned "is based upon". Unfortunately, however, it is never possible totally to exclude the possibility of subsequent disagreement on questions of interpretation, however precise the wording adopted. The only question is therefore how far it is prudent or desirable to go in the refining of definitions. A risk of quite a different kind is involved if definitions are made too precise, for in that event an act affecting the status of a name the meaning of which is not open to serious doubt may nevertheless lead to the rejection of that name or some usage of it as invalid by reason of its non-compliance with some subsidiary requirement specified in the definition. In this connection it may be recalled that at Lisbon in 1935 the International Commission, when defining the meaning to be attached to the expression "define bibliographic reference" as used in Proviso (c) to Article 25 of the *Règles* adopted a form of words later embodied in *Opinion 138 (Ops. Decls. int. Comm. zool. Nomencl. 2 : 29—34)* which was so precise as virtually to eliminate any possibility of doubt as to the meaning intended but which on this account was so rigid as to render invalid any name which failed to comply with the definition given, even where there the particulars provided by the author of a substitute name were so complete as to leave no reasonable doubt as to the identity of the nominal species, the name of which was being replaced. The Ruling so given was later severely criticised on account of its excessive "ritualism" by Dr. J. Brookes Knight (*Smithsonian Institution, Washington, D.C., U.S.A.*) on behalf of the Joint Committee on Zoological Nomenclature for Paleontology in America, of which he was then the Chairman. These criticisms were accepted as valid at Paris in 1948 both by the International Commission and by the Thirteenth International Congress of Zoology which, on the advice of the Commission, substantially liberalised the definition given at Lisbon (1950, *Bull. zool. Nomencl. 4 : 68—70*). In the light of this experience it is necessary in cases of this kind to steer a middle course between undue looseness of wording on the one hand and "ritualism" on the other hand in the drafting of definitions of expressions in the *Règles* which affect either the status or the interpretation of names. It appears to me that in the present case the wording employed in the draft set out in Appendix 1 to the

paper submitted with Voting Paper V.P.(56)37, as clarified by the drafting suggestions made by Dr. Key discussed in paragraph 4 above, goes as far as is practicable in the direction of precision without overstepping the line and becoming "ritualistic". For in that draft one whole class of specimens is ruled out from consideration as syntypes, the specimens remaining being only those which the author of the name in question "states" are those on which the nominal species in question "is based". The only loophole left for subsequent argument is as to which are the specimens which the author "stated" were those upon which his species was based. In most cases this is unlikely to be a question open to serious argument, while in the small remainder the question is by its nature one on which finality would never be obtainable without express reference to the Commission. Accordingly, I take the view that the formula set out in Appendix 1 of the paper referred to above which has now been approved by the International Commission by twenty-one votes to three votes, goes as far as is practicable in the direction of precision short of offending against the Canon relating to the avoidance of ritualism.

6. For the reasons set out in the present Minute I now as Secretary hereby direct that the wording to be employed in the *Declaration* approved by the International Commission by its vote on Voting Paper V.P.(56)37 be the wording suggested in Appendix 1 to the paper submitted to the Commission simultaneously with the foregoing Voting Paper, subject to the incorporation therein of the drafting amendments specified in paragraph 4 above.

**9. Preparation of the present "Declaration"** : On 12th June 1957, 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.(56)37, subject to the incorporation therein of the drafting amendments specified in the Minute executed by the Secretary on 11th June 1957, the text of which has been reproduced in paragraph 8 of the present *Declaration*.

**10.** 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.

**11.** The present *Declaration* shall be known as *Declaration Thirty-Five (35)* of the International Commission on Zoological Nomenclature.

DONE in London, this Twelfth day of June, 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

VOLUME 17. Part 1. Pp. 1—14

## OPINION 481

Emendation under the Plenary Powers to *Lernaecera* of the generic name *Lerneocera* and designation under the same Powers of a type species in harmony with accustomed usage for the genus so named (Class Crustacea, Order Copepoda)



**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7

1957

**Price Nine Shillings and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 481

### A. The Officers of the Commission

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

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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)*

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)

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

Professor Harold E. VOKES (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 481

EMENDATION UNDER THE PLENARY POWERS TO  
“LERNAEOCERA” OF THE GENERIC NAME  
“LERNEOCERA” AND DESIGNATION UNDER THE  
SAME POWERS OF A TYPE SPECIES IN HARMONY  
WITH ACCUSTOMED USAGE FOR THE GENUS  
SO NAMED (CLASS CRUSTACEA, ORDER  
COPEPODA)

**RULING** :—(1) Under the Plenary Powers :—

- (a) the emendation to *Lernaecera* of the generic name *Lerneocera* Blainville, 1822 (Class Crustacea, Order Copepoda) is hereby approved ;
- (b) all selections of type species for the genus *Lernaecera* (emend. of *Lerneocera*) Blainville, 1822, made prior to the present *Ruling* are hereby set aside and the nominal species *Lernaea branchialis* Linnaeus, 1767, 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 severally specified below :—

- (a) *Lernaea* Linnaeus, 1758 (gender : feminine) (type species, by selection by Wilson (1917) : *Lernaea cyprinacea* Linnaeus, 1758) (Name No. 1218) ;

(b) *Lernaeocera* (emend. under the Plenary Powers in (1)(a) above of *Lerneocera*) Blainville, 1822 (gender : feminine) (type species by designation under the Plenary Powers in (1)(b) above : *Lernaea branchialis* Linnaeus, 1767) (Name No. 1219).

(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) *cyprinacea* Linnaeus, 1758, as published in the combination *Lernaea cyprinacea* (specific name of type species of *Lernaea* Linnaeus, 1758) (Name No. 1381) ;

(b) *branchialis* Linnaeus, 1767, as published in the combination *Lernaea branchialis* (specific name of type species of *Lernaeocera* (emend. of *Lerneocera*) Blainville, 1822) (Name No. 1382).

(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. 996 :—

*Lerneocera* Blainville, 1822 (rejected under the Plenary Powers in (1)(a) above as an Invalid Original Spelling for *Lernaeocera*, a spelling placed on the *Official List of Generic Names in Zoology* under (2)(b) above.

## I. THE STATEMENT OF THE CASE

On 12th February 1953, Professor Paul L. Illg (*University of Washington, Seattle, Washington, U.S.A.*) addressed a preliminary communication to the Office of the Commission on the question of the possible use by the International Commission of its Plenary Powers for the purpose of designating for the genus *Lernaeocera*



(emendation proposed for *Lerneocera*) Blainville, 1822 (Class Crustacea, Order Copepoda) a type species in harmony with current nomenclatorial usage. This led to the submission to the International Commission on Zoological Nomenclature by Professor Illg of the following application on 9th March 1955 :—

**Proposed designation, under the Plenary Powers, for the generic name “*Lernaecocera*” (emend. of “*Lerneocera*”) Blainville, 1822 (Class Crustacea, Order Copepoda) of a type species in harmony with current nomenclatorial usage**

By PAUL L. ILLG

(Department of Zoology, University of Washington, Seattle, Washington, U.S.A.)

The object of the present application is to secure authority from the International Commission on Zoological Nomenclature for the continued use of the well-known generic name *Lernaecocera* Blainville, 1822 (emend. of *Lerneocera* by Nordmann, 1832), in the sense established by Wilson (C.B.), 1917, with the type species *Lernaea branchialis* Linnaeus, 1767.

2. The genus *Lernaea* was included by Linnaeus in *Systema Naturae*, 10th edition, 1758 (1 : 655) and comprised three species, *L. cyprinacea*, *L. asellina*, and *L. salmonea*, listed by him in the order here presented. In the 12th edition of 1767 Linnaeus repeated this treatment, but in addition included a new species, *L. branchialis* (1 : 1092), which was placed first in the listing. Blainville (1822, *J. Physique* 95) reallocated most of the many species which had accumulated by that date in *Lernaea* to new genera proposed by him. For a group of species, including *L. branchialis* L. and *L. cyprinacea* L., Blainville (: 375) erected the genus *Lerneocera* [sic]. In the original proposition of the genus, Blainville, although clearly indicating that his object was the subdivision of the Linnaean genus *Lernaea*, spelled the name under consideration as *Lerneocera*. Nordmann (1832, *Mikrogr. Beitr. Naturg. wirbel. Thiere*, pt. 2 : 54) used the emendation conforming to Linnaeus's spelling, and this has been practically universally employed since.

3. Krøyer (1835, *Naturh. Tidsskr.* 1 : 191) partially reversing Blainville's treatment, synonymized with *Lernaea* part of the genus *Lernaecocera* of Blainville. He assigned *L. branchialis* L., *L. cyclopterina* Fabricius and *L. surrireensis* [sic] Blainville to *Lernaea* and (: 192)

placed *L. cyprinacea* L. and *L. esocina* Burmeister in *Lernaeocera*. This scheme, with the additional weight of the precedence of *L. branchialis* in the list of species of *Lernaea* in the 12th edition of the *Systema Naturae*, was adopted as general usage by succeeding 19th century authors and the majority of references to *Lernaea branchialis* L. are under the Linnaean generic name.

4. Cunnington (1914, *Proc. zool. Soc. Lond.* **1914** : 820) was the first author to designate a type species for the genus *Lernaeocera* Blainville. He was aware of the ambiguities existing in the historical usage and of the proprieties involved with reference to the International Rules of Zoological Nomenclature. In order to secure the continued association of the genus *Lernaeocera* with the series of freshwater parasitic copepods long known under that generic name, Cunnington designated *L. cyprinacea* L. as the type species of the genus.

5. *Lernaeocera* in its current usage for distinctive marine parasites was "restored" by C. B. Wilson (1917, *Proc. U.S. nat. Mus.* **53**) by his designation (: 37) for the type species of *Lernaea* Linnaeus of *L. cyprinacea* L., 1758, and (: 84) for the type of *Lernaeocera* Blainville of *L. branchialis* Linnaeus, 1767. No author prior to Wilson had expressly selected a type species for *Lernaea* Linnaeus, so the result of Wilson's action is to establish *Lernaeocera* as an objective synonym of *Lernaea*, and the genus of which *L. branchialis* is the type species is without an available generic name. It is hereby therefore proposed to resort to the Plenary Powers of the Commission for validation of the name *Lernaeocera*.

6. The abandonment of the generic name *Lernaeocera* (as would be entirely proper and regular under application of the normal provisions of the Rules of Nomenclature) would be a most unfortunate compounding of a state of confusion and vexation already existing with regard to this animal. *Lernaea branchialis* Linnaeus has been widely cited in textbooks and other works of general application as a classical example of a parasitic copepod exhibiting profound modifications of structure, physiological processes, and life history. An extensive literature has been built up with reference to these features. Between the date of Krøyer's revision and the time of Wilson's treatment, nearly a century, usage was almost universal in referring the species to *Lernaea* Linnaeus, which was a thoroughly logical development of the arrangement of Linnaeus's 12th edition. The adoption of the 10th edition of the *Systema Naturae* as the basis of the International Rules provided the technicality which led Wilson to switching the long established usage. Workers publishing since Wilson's action have been most remarkably unanimous in their deference to this strict adherence to the Rules of Nomenclature. However, it has not yet

been pointed out in any publication available to me that the logical conclusion of the process which Wilson initiated would be the submergence of the name *Lernaocera*.

7. Wilson, 1917 (: 81) in his revision of the LERNAEIDAE, used *Lernaocera*, in the sense of his new designation, as the type genus of a subfamily LERNAEOCERINAE. Gurney (1932, *British Freshwater Copepoda*, 3 : 336) elevated the group to full familial status.

8. As has been explained earlier in the present application, the spelling *Lerneocera* used by Blainville in 1822 when establishing the genus so named was emended to *Lernaocera* by Nordmann in 1832 and that spelling has been used by almost all subsequent authors. The authoritative works of Wilson, 1917, and of Gurney, 1932, indicate in their synonymies such usage. It would clearly lead to undesirable instability and interference with current nomenclatorial practice if it were necessary now to revert to the original but incorrect spelling used by Blainville. The Fourteenth International Congress of Zoology at Copenhagen in 1953 provided a means for preventing disturbances in nomenclature of this kind (1953, *Copenhagen Decisions zool. Nomencl.* : 45—46), but this procedure is not appropriate in a case like the present where an immediate decision is required. Without such a decision it will not be possible for the Commission to deal with the main part of the present application, namely the designation of an appropriate type species for Blainville's genus under the Plenary Powers, for, in taking a decision in this sense the Commission would be bound to place the generic name in question on the *Official List* and this would not be possible until a decision had been reached on the question of the spelling to be approved for that genus. I therefore ask the Commission, while using its Plenary Powers for the purpose of designating a type species for this genus, to use those Powers also for the purpose of approving the spelling *Lernaocera*, for this is the only way by which that spelling can be standardized and confusion avoided.

9. To prevent further complication in the literature, which reversal in usage in application of these names has already brought about, the following proposal is submitted for consideration by the Commission, namely :—

(1) that it should use its Plenary Powers :—

(a) to approve the emendation to *Lernaocera* of the generic name *Lerneocera* Blainville, 1822 ;

(b) to set aside all type selections for the foregoing genus made prior to the decision now asked for and to designate *Lernaea branchialis* Linnaeus, 1767, to be its type species ;

- (2) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—
- (a) *Lernaea* Linnaeus, 1758 (gender : feminine) (type species, by selection by Wilson (1917) : *Lernaea cyprinacea* Linnaeus, 1758) ;
  - (b) *Lernaeocera* (emendation under the Plenary Powers, under (1)(a) above, of *Lerneocera*) Blainville, 1822 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b) above : *Lernaea branchialis* Linnaeus, 1767) ;
- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
- (a) *cyprinacea* Linnaeus, 1758, as published in the combination *Lernaea cyprinacea* (specific name of type species of *Lernaea* Linnaeus, 1758) ;
  - (b) *branchialis* Linnaeus, 1767, as published in the combination *Lernaea branchialis* (specific name of type species, by designation, under the Plenary Powers, under (1)(b) above, of *Lernaeocera* (emend. of *Lerneocera*) Blainville, 1822).

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt of Professor Illg's preliminary communication the question of a designation of a type species in harmony with accustomed usage for the genus *Lernaeocera* (emendation proposed for *Lerneocera*) Blainville, 1822, was allotted the Registered No. Z.N.(S.) 755.

**3. Publication of the present application :** The present application was sent to the printer on 30th March 1955 and was published on 7th July in the same year in Part 8 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Illg, 1955, *Bull. zool. Nomencl.* **11** : 252—255).

**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 7th July 1955 (a) in Part 8 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Professor Illg's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given also to four general zoological serial publications.

**5. Support received :** Support for the action proposed in this case was received from two French zoologists and one Belgian zoologist. The communications so received are reproduced in the immediately following paragraphs.

**6. Support received from Robert Ph. Dollfus (Muséum National d'Histoire Naturelle, Paris) :** On 3rd November 1955, Professor Robert Ph. Dollfus (*Muséum National d'Histoire Naturelle, Paris*) sent the following letter to the Office of the Commission in support of the present case :—

J'approuve pleinement la proposition de Paul Illg pour l'adoption définitive de *Lernaocera*, espèce type : *Lernaocera branchialis* (L. 1767).

**7. Support received from A. Capart (Institut Royal des Sciences Naturelles de Belgique, Bruxelles) :** On 5th October 1955, Dr. A. Capart (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles*) addressed the following letter of support to the Office of the Commission :—

J'estime la proposition de Mr. P. Illg parfaitement justifiée et nécessaire.

La décision de la Commission à ce sujet et suivant les conseils de Mr. Illg, sera la consécration d'un usage adopté depuis de nombreuses années par les specialists de cette question.

**8. Support received from Cl. Delamare Deboutteville (Université de Paris, Biologie Marine, Laboratoire Arago, Banyuls-sur-Mer, France) :** On 15th November 1955, Dr. Cl. Delamare Deboutteville

(*Université de Paris, Biologie Marine, Laboratoire Arago, Banyuls-sur-Mer, France*) addressed the following letter of support to the Office of the Commission :—

Je vous serais reconnaissant de bien vouloir noter que j'approuve toutes les conclusions proposées par Paul L. Illg (Commission's Reference : Z.N.(S.) 755 (*Lernaocera*)). C'est cette solution de nomenclature que je comptais utiliser personnellement dans mon "Catalogue critique des Copépodes parasites".

**9. No objection received :** No objection to the action proposed in the present case was received from any source.

**10. Supplementary proposal for the addition of a name to the "Official Index of Rejected and Invalid Generic Names in Zoology" :** When in April 1956 the Voting Paper to be issued to the Members of the Commission in this case came to be prepared, it was noted that by an oversight no recommendation had been included in the application for the disposal of the generic name *Lerneocera* Blainville, 1822, the emendation of which to *Lernaocera* under the Plenary Powers was there asked for. In order to make good this omission, Mr. Hemming, as Secretary, added a proposal in Note 5 submitted with that Voting Paper that the above spelling, if rejected (as recommended), should be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*.

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

**11. Issue of Voting Paper V.P.(56)20 :** On 25th April 1956 a Voting Paper (V.P.(56)20) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic name *Lernaocera* Blainville,

1822, as set out in Points (1) to (3) in paragraph 9 on pages 254—255 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 *Opinion*] subject to the addition suggested in Note 5 overleaf” [i.e. in the Note so numbered to which reference has been made in paragraph 10 above].

**12. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 25th July 1956.

**13. Particulars of the Voting on Voting Paper V.P.(56)20 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)20 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) :*

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

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

Mertens ;

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

Bradley (J.C.) ;

(d) *Voting Papers not returned :*

None.

**14. Declaration of Result of Vote :** On 26th July 1956, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)20, signed a Certificate that the Votes cast were as set out in paragraph 13 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.

**15. Family-Group-Name Problems :** The application dealt with in the present *Opinion* was originally brought to the attention of the Office of the Commission before the establishment in 1953 of the *Official List of Family-Group Names in Zoology* and by an oversight this question was not taken up with Professor Illg prior to the publication of his application in the *Bulletin of Zoological Nomenclature*. At the time of the declaration of the result of the vote on this case (paragraph 14 above), this matter was however raised by the Secretary with Professor Illg in the hope that it might be possible to secure a decision on it from the Commission in time for that decision to be included in the present *Opinion*. At the conclusion of this correspondence it became evident that the problems involved were unusually complex and accordingly on 20th May 1957 (the day on which Professor Illg's letter on this subject was received in the Office of the Commission) Mr. Hemming, as Secretary, decided that it would be undesirable further to postpone the preparation of an *Opinion* in this case and he accordingly executed a Minute directing that the family-group-name problems associated with the generic names *Lernaea* Linnaeus, 1758, and *Lernaeocera* Blainville, 1822, should be treated as constituting a separate case to which the Registered No. Z.N.(S.) 1227 was thereupon allotted.

**16. Preparation of the Ruling given in the present "Opinion" :** The decision to postpone the settlement of the family-group-name problems involved in the present case, as recorded in paragraph 15 above, cleared the way for the preparation of the Ruling to be given in the present *Opinion*. Accordingly, on the same day



as that on which the decision referred to above was taken (20th May 1957) Mr. Hemming prepared the requisite Ruling 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)20.

**17. 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* :—

*branchialis*, *Lernaea*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1(2) : 1092**

*cyprinacea*, *Lernaea*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1 : 655**

*Lernaea* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1 : 655**

*Lernaeocera* (emend. of *Lerneocera*) Blainville, 1822, *J. Phys.* **95 : 375**

*Lerneocera* Blainville, 1822 (an Invalid Original Spelling for *Lernaeocera*).

**18.** The following is the reference for the selection of a type species for a genus specified in the Ruling given in the present *Opinion* :—

For *Lernaea* Linnaeus, 1758 : Wilson, 1917, *Proc. U.S. nat. Mus.* **53 : 37**

**19.** 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.

20. The present *Opinion* shall be known as *Opinion* Four Hundred and Eighty-One (481) of the International Commission on Zoological Nomenclature.

DONE in London, this Twentieth day of May, 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**

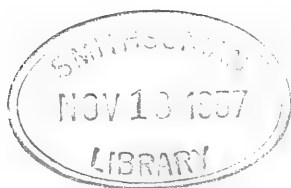
*Edited by*

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

**VOLUME 17. Part 3. Pp. 15—40**

**OPINION 482**

Rejection of a proposal for the suppression under the  
Plenary Powers of the generic name *Caenisites* Buckman,  
1925 (Class Cephalopoda, Order Ammonoidea)



**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

**Price Seventeen Shillings and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 482

### A. The Officers of the Commission

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

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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*)

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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 TORTONESI (*Museo di Storia Naturale "G. Doria", Genova, Italy*) (16th December 1954)

## OPINION 482

### REJECTION OF A PROPOSAL FOR THE SUPPRESSION UNDER THE PLENARY POWERS OF THE GENERIC NAME "CAENISITES" BUCKMAN, 1925 (CLASS CEPHALOPODA, ORDER AMMONOIDEA)

**RULING** :—(1) The request for the suppression under the Plenary Powers of the generic name *Caenisites* Buckman, 1925 (Class Cephalopoda, Order Ammonoidea) is hereby rejected.

(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) *Caenisites* Buckman, 1925 (gender : masculine) (type species, by monotypy : *Caenisites caeneus* Buckman, 1925) (Name No. 1220) ;
- (b) *Euasteroceras* Donovan, 1953 (gender : neuter) (type species, by original designation : *Ammonites turneri* Sowerby (J. de C.), 1824) (for use by those specialists who consider on taxonomic grounds that the type species of the genus so named is generically distinct from the type species of the genus *Caenisites* Buckman, 1925) (Name No. 1221).

(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) *caeneus* Buckman, 1925, as published in the combination *Caenisites caeneus* (specific name of type species of *Caenisites* Buckman, 1925) (Name No. 1383) ;

- (b) *turneri* Sowerby (J. de C.), 1824, as published in the combination *Ammonites turneri* (specific name of type species of *Euasteroceras* Donovan, 1953) (Name No. 1384).

## I. THE STATEMENT OF THE CASE

On 15th November 1952, Dr. W. J. Arkell (*Sedgewick Museum, Cambridge University*) and Dr. D. T. Donovan (*Bristol University*) submitted jointly to the International Commission on Zoological Nomenclature an application asking for the suppression under the Plenary Powers of the generic name *Caenisites* Buckman, 1925 (Class Cephalopoda, Order Ammonoidea), a name given to a genus regarded as having been founded upon a monstrosity. The application so submitted could not immediately be dealt with because the applicants desired to make reference in it to a generic name (*Euasteroceras*) which was then awaiting publication in a paper by one of the applicants (Donovan) in the *Proceedings of the Geological Society of London*. The generic name referred to above was published in 1953, thus making it possible for the applicants to complete their application in regard to the generic name *Caenisites* Buckman. The application so submitted was as follows :—

**Proposed use of the Plenary Powers to suppress the generic name  
“Caenisites” Buckman, 1925, founded upon a monstrosity (Class  
Cephalopoda, Order Ammonoidea)**

By W. J. ARKELL, M.A., D.Sc., F.R.S.  
(*Sedgewick Museum, Cambridge University, Cambridge*)

and

D. T. DONOVAN, Ph.D.  
(*Bristol University, Department of Geology, Bristol*)

Among scores of Jurassic ammonite genera founded by S. S. Buckman between 1920 and 1930 on single specimens was *Caenisites*

*caeneus*, "Genotype, Holotype", from the Lower Lias of Cleve, Cheltenham (Buckman, 1925 : pl. DLXXII). Buckman remarked "keel ends suddenly at 68 mm. (fig. 2a)". This is evidently due to an injury during life, and, the type specimen remained in oblivion for more than twenty years.

2. There exists in the Lower Lias of England and many European countries, as well as of other continents, a well-known and well-characterised genus of ammonites centred around *Ammonites turneri* J. de C. Sowerby (1824 : 75, pl. 452) and often known as "the *turneri* group". This group was assigned to the genus *Arietites* Waagen, 1869, by Thomas Wright in his "Monograph of the Lias Ammonites of the British Islands" (1878—1886 : 292, pl. xii), and *A. turneri* was cited as type species of *Arietites* by Buckman (1898 : 452) and refigured by him in 1921 (: pl. CCXXI, figs. A & B) under the generic name *Arietites*.

3. As pointed out by Spath (1946), however, the type species of *Arietites* is *Ammonites bucklandi* Sowerby by monotypy; and an application has been made to the International Commission on Zoological Nomenclature to place *Arietites* and its type species *A. bucklandi* on the *Official List of Generic and Specific Names in Zoology* respectively (Arkell, 1951 : 202, para. 19)<sup>1</sup>.

4. The *turneri* group is now considered generically distinct and therefore requires a new generic name. Spath (1946) stated that *Caenisites* Buckman, 1925, was available for this purpose, because in his opinion the inner whorls of *C. caeneus* belong to a species of this group.

5. In the forthcoming *Treatise on Invertebrate Paleontology* it is intended to reproduce the type figures of all type species of genera. To reproduce the figures of the pathological monstrosity on which *Caenisites* is based as representative of the *turneri* group would be misleading in the extreme. For apart from the fact that the greater part of the outer and visible whorl is keelless, whereas the *turneri* group has three ventral keels, the coiling of the whole ammonite is more evolute, with the whorl enlarging much more slowly even long before the point at which the injury occurred, than in any typical

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<sup>1</sup> The application here referred to by Dr. Arkell has now been approved by the International Commission on Zoological Nomenclature and the decision so taken has been embodied in *Opinion* 305 (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 8 : 297—312).

species of the *turneri* group. It will always be open to question whether *Caenisites caeneus* is a member of the *turneri* group.

6. In our opinion such an important group of ammonites as the *turneri* group should have a generic name free from all subjective elements, and Donovan has accordingly proposed the new generic name *Euasteroceras*, with *Ammonites turneri* J. de C. Sowerby as type species.\* (Sowerby's upper figure designated lectotype by Buckman, 1898 : 453 and refigured Wright 1878-86, pl. XII, fig. 4.) Unless *Caenisites* is suppressed, however, it will always be possible for some authors to use *Caenisites* for the same group on the ground that an eminent specialist has declared his opinion that *C. caeneus* Buckman is congeneric.

7. We are informed by Mr. Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, that at its meeting at Copenhagen the Fourteenth International Congress of Zoology decided against the inclusion in the *Règles* of a provision invalidating a generic name given to a nominal genus, the type species of which is, in the opinion of later workers, a monstrosity, being of the opinion that such a provision would involve the introduction into the *Règles* of an undesirable subjective element and that, where cases of this kind were encountered, they could be more appropriately dealt with individually under the Commission's Plenary Powers<sup>2</sup>. The present is, in our view, pre-eminently a case which calls for action under the foregoing procedure, and we accordingly recommend the International Commission on Zoological Nomenclature :—

- (1) to use its Plenary Powers to suppress the generic name *Caenisites* Buckman, 1925, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (2) to place the generic name *Euasteroceras* Donovan, 1953 (type species, by original designation : *Ammonites turneri* Sowerby, 1824) (gender of generic name : neuter) on the *Official List of Generic Names in Zoology* ;
- (3) to place the specific name *turneri* Sowerby (J. de C.), 1824 (as published in the binomen *Ammonites turneri*) on the *Official List of Specific Names in Zoology* ;

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\* Donovan, 1953, *Proc. geol. Soc. Lond.* No. 1503 : xiii—xiv.

<sup>2</sup> For the decision here referred to see 1953 (*Copenhagen Decisions zool. Nomencl.* : 63, Decision 113).



- (4) to place the generic name *Caenisites* Buckman, 1925, as proposed, under (1) above, to be suppressed under the Plenary Powers, on the *Official Index of Rejected and Invalid Generic Names in Zoology*.

### References

- Arkell, W. J., 1951, *Bull. zool. Nomencl.* **2** (Parts 6/8) : 202
- Buckman, S. S., 1898. *Quart. J. geol. Soc. Lond.* **54** : 452—3
- , 1921. *Type Ammonites* **3** : pl. CCXXI, figs. A, B.
- , 1925. *ibid.* **5** : pl. DLXXII
- Sowerby, J. de C., 1824. *Mineral Conchology* **5** : 75
- Spath, L. F., 1946. *Ann. Mag. nat. Hist.* (11) **12** : 490
- Wright, T., 1878—86. *Monograph on the Lias Ammonites of the British Islands*, Palaeont. Soc.

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt in 1952 of the preliminary application by Dr. Arkell and Dr. Donovan, the question of the suppression under the Plenary Powers of the generic name *Caenisites* Buckman, 1925, was allotted the Registered Number Z.N.(S.) 798.

**3. Publication of the present application :** The present application was sent to the printer on 8th December 1953 and was published on 26th February 1954 in Part 12 of Volume 6 of the *Bulletin of Zoological Nomenclature* (Arkell & Donovan, 1954, *Bull. zool. Nomencl.* **6** : 364—366).

**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 26th February 1954 (a) in Part 12 of Volume 6 of the *Bulletin of Zoological Nomenclature* (the Part in which the application by Dr. Arkell and Dr. Donovan was published) and (b) to the other prescribed serial publications. In addition such Notice was given to four general zoological serial publications and to three palaeontological serials in Europe and America.

**5. Comments received :** The publication of the present application and the issue of Public Notices in regard thereto elicited comments from five specialists, of whom three (Germany, one ; United Kingdom, one ; United States, one) supported the application, while the remaining two (both United Kingdom specialists) expressed opposition thereto. At a later stage one of the specialists (Sylvester-Bradley) who had previously expressed his support for the action recommended in this case changed his standpoint and submitted a note of opposition thereto. The communications so submitted are reproduced in the immediately following paragraphs.

**6. Support received from Helmut Hölder (Institut und Museum für Geologie und Paläontologie der Universität Tübingen, Germany) :** On 30th September 1954, Dr. Helmut Hölder (*Institut und Museum für Geologie und Paläontologie der Universität Tübingen, Germany*) addressed the following letter of support for the present application to the Office of the Commission (Hölder, 1954, *Bull. zool. Nomencl.* **9** : 349) :—

Ich schliesse mich dem von W. J. Arkell und D. T. Donovan eingereichten Vorschlag zur Unterdrückung des Gattungs-Namens *Caenisites* Buckman, 1925 an. Denn der Genotypus der Gattung ist auf ein monströses Exemplar (Specie-Typus von *Caenisites caeneus* Buckman) gegründet, das nicht eindeutig bestimmt werden kann. Dieser Sachverhalt widerspricht daher der beabsichtigten Kontinuität der zoologischen Nomenklatur.

**7. Support received from Otto H. Haas (The American Museum of Natural History, New York, U.S.A.) :** On 18th October 1954, Dr. Otto H. Haas (*The American Museum of Natural History, New York, U.S.A.*) addressed the following letter of support to the Office of the Commission (Haas, 1954, *Bull. zool. Nomencl.* **9** : 350) :—

This is to express my full support of the proposal by Drs. Arkell and Donovan to suppress the generic name *Caenisites* Buckman, 1925.

**8. Comments received from P. C. Sylvester-Bradley (University of Sheffield, England) :** As explained in paragraph 5 above, two communications in regard to the present case were received from Mr. P. C. Sylvester-Bradley (*University of Sheffield, England*). In the first of these communications, which was received in the Office of the Commission on 30th September 1954, Mr. Sylvester-Bradley indicated his support for the application submitted in this case. In the second communication, which was dated 23rd March 1955, Mr. Sylvester-Bradley withdrew his support for this case and stated that for the reasons there given he was now opposed to it. The communications so received were as follows :—

**(a) Statement in support of the present application  
received from P. C. Sylvester-Bradley  
on 30th September 1954**

(Sylvester-Bradley, 1954, *Bull. zool. Nomencl.* **9** : 349)

I wish to support the recommendation of Arkell and Donovan (1954, *Bull. zool. Nomencl.* **6** : 364—366) that the Commission should suppress the name *Caenisites* Buckman, 1925. This name was never used since the date of its proposal until its resurrection in 1946, and has not even since then passed into general usage. No confusion can therefore follow its suppression.

The name *Euasterocerus* Donovan, 1953, which by some is considered a subjective synonym of *Caenisites*, is typified by a well-known species

characteristic of a group of importance to both Jurassic stratigraphy and palaeontology. Previously these species had been known by the now inadmissible name *Arietites*. Specialists disagree as to the synonymy of *Euasteroceras* and *Caenisites* and agreement can never be reached since the type species of *Caenisites* is known by only the holotype, which all agree to be a monstrosity. The existence of the two names is, therefore, a danger to both stability and universal usage, for stratigraphers who are not ammonite specialists are at a loss which name to use. The suppression of the name *Caenisites* is, therefore, in full accord with the general directive given at Copenhagen for the use of the Commission's Plenary Powers (*Copenhagen Decisions zool. Nomencl.* : 23).

**(b) Statement dated 23rd March 1955 received from  
P. C. Sylvester-Bradley withdrawing the  
support for the present application  
given in the statement received in  
the Office of the Commission  
on 30th September 1954**

The crucial point which the Commission will need to determine in the disagreement between Spath (1954, *Bull. zool. Nomencl.* 9 : 346—348) on the one hand, and Arkell and Donovan (*Bull. zool. Nomencl.* 6 : 364—366) on the other is whether it is the malformation of the type specimen of the ammonite *Caenisites caeneus* that prevents its specific recognition. Spath (*op. cit.* : 347) identifies the specimen as a member of the species *Amm. plotti* Reynès. He bases his identification on the fact that the specimen in dispute is quite normal up to a diameter of 68 mm., the malformation only affecting the last half-whorl of the fossil. The type-specimen is therefore as good a guide to specific recognition as would be a normal undeformed specimen of 68 mm. diameter. Donovan (1953, *Proc. geol. Soc. Lond.*, No. 1503 : xiii) disagrees with Spath in that he believes that the specimen does not "correspond exactly" with *Amm. plotti* Reynès, but this disagreement is no more than might be expected to exist between any two specialists, and does not seem to be conditioned in any way by the fact that the last half-whorl of the specimen is deformed.

2. That specialists should disagree may often embarrass the non-specialist, but the assessment of taxonomic disputes can form no part of the task of the International Commission. I therefore wish to withdraw my support of Arkell and Donovan's proposal (1954, *Bull. zool. Nomencl.* 9 : 349 in favour of Spath's counter proposal (*op. cit.*).

**9. Objection received from L. F. Spath (British Museum (Natural History), London) :** On 22nd July 1954, Dr. L. F. Spath (*British Museum (Natural History), London*) communicated the following paper to the Office of the Commission in which he expressed his objections to the present case (Spath, 1954, *Bull. zool. Nomencl.* **9** : 346—348) :—

1. The proposal by Dr. Arkell and Dr. Donovan that the Plenary Powers be used to suppress the generic name *Caenisites* S. S. Buckman, 1925 (see *Bull. zool. Nomencl.*, **6** : 364) was made principally on the grounds that the single specimen on which the genus was based is a pathological monstrosity. Objection was made at the same time to the present author's usage of the name *Caenisites* for the group of ammonite species that includes *Ammonites turneri* J. de C. Sowerby (1824 : 75, pl. 452, upper figure). This proposal is opposed on the grounds stated below.

2. While it is true that the unique holotype of the type species of the nototypical nominal genus *Caenisites*, *C. caeneus* Buckman (1925 : pl. DLXXII) is a pathological monstrosity, the abnormality affects only the last half-whorl of the specimen, from 68 to 85 mm. diameter. The remainder of the shell is perfectly normal and shows the characters of the species-group that includes *Amm. turneri* J. de C. Sowerby, *Amm. brooki* J. Sowerby (1818 : 203, pl. 190) and *Amm. plotti* Reynès (1879 : pl. 36, figs. 9—16) among others. The original figures of *C. caeneus* show these characters not only in lateral view but also in ventral view before the beginning of the deformed part of the shell. So long as the species-group in question is regarded as homogeneous, it is not seriously open to question whether *C. caeneus* is a member of it or not.

3. It is a matter of observation that deformed specimens are of common occurrence in this group. One was figured as *Arietites turgescens* by Buckman (1918 : pl. 29, figs. 2a, b) ; another, now considered to be a malformed *Amm. plotti* Reynès, was referred to by me as *Arietites* sp. nov. (1923 : 76). The generic affinities of these and other deformed specimens are not obscured by their malformations.

4. Dr. Donovan (1953 : xiii), in proposing the generic name *Euasteroceras* for *Amm. turneri* J. de C. Sowerby, states that *Caenisites caeneus* does not correspond exactly with *Amm. plotti*, referring to my opinion (1946 : 496) that the former was a malformed specimen of the latter. Whatever the words "correspond exactly" may have been intended to mean (very few individuals of any ammonite species

ever correspond *exactly* with each other), he has given no taxonomic reasons to justify the generic separation of *Euasteroceras* from *Caenisites*. He is wrong in stating that degeneration of ornament does not occur in the *turneri*-group. In large examples degeneration similar in type to that known in *Asteroceras* can be seen.

5. On a point of detail, the lectotype of *Amm. turneri* was not, as stated by Dr. Donovan, first designated by Buckman (1898 : 453), but by Oppel (1856 : 82).

6. The intention announced by Dr. Arkell and Dr. Donovan of reproducing the original figures of all type species of all ammonite genera in the forthcoming *Treatise of Invertebrate Paleontology* is quite irrelevant to the nomenclatorial point under discussion. Special pleading of this sort cannot help the Commission to appreciate the essentials of the case. Many genera of ammonites are based on far less satisfactory figures than is *Caenisites*, *Euasteroceras* among them.

7. Many generic names may have been proposed in the mistaken belief that a pathological deformity was a normal morphological character, but most of these cases are so obvious that the subjective element in their interpretation is very small. Moreover, few of such names are involved in situations such as the present where it is generally agreed that a new generic name is needed (for taxonomic purposes) for the species-group to which the pathological specimen belongs. In the writer's opinion, Dr. Arkell and Dr. Donovan are grossly exaggerating the extent of the subjective element in this case. It is claimed that the holotype of *Caenisites caeneus* shows all the characters needed for its generic assignation and that to claim that it is doubtful whether it is a member of the *turneri-plotti* group shows that the authors of the proposal that the generic name *Caenisites* be suppressed have inadequate experience of the many transitional forms in this group.

8. In so far as there is usage of a generic name for the species-group in question, that usage is in favour of maintaining the generic name *Caenisites*. The authors of the proposal to suppress that name have not shown any clear-cut necessity for doing so in the terms of *Opinion 93*. They are, on the other hand, relying on that subjective element in the case which was stressed in the Copenhagen decision to reject Dr. Arkell's application for the inclusion in the *Règles* of a provision invalidating a generic name given to a nominal genus, the type species of which is, in the opinion of later workers, a monstrosity.

9. In the writer's opinion, the nominal genus *Euasteroceras* Donovan, 1953 is a subjective synonym of *Caenisites* Buckman, 1925. It is,

therefore, requested that the International Commission on Zoological Nomenclature :—

- (1) reject the proposal to use their Plenary Powers to suppress the generic name *Caenisites* Buckman, 1925 ;
- (2) reject the proposal to use their Plenary Powers to suppress the specific name *caeneus* Buckman, 1925, as published in the binomen *Caenisites caeneus* ;
- (3) place the generic name *Caenisites* Buckman, 1925 (type species, by monotypy : *Caenisites caeneus* Buckman) (gender of generic name : masculine) on the *Official List of Generic Names in Zoology* ;
- (4) place the specific name *caeneus* Buckman, 1925, as published in the binomen *Caenisites caeneus* on the *Official List of Specific Names in Zoology* ;
- (5) place the generic name *Euasteroceras* Donovan, 1953 (type species, by original designation, *Ammonites turneri* J. de C. Sowerby, 1824) (gender of generic name : neuter) on the *Official Index of Rejected and Invalid Generic Names in Zoology*.

### References

- Arkell, W. J., and Donovan, D. T., 1954. *Bull. zool. Nomencl.* **6** : 364
- Buckman, S. S., 1898. *Quart. J. geol. Soc. Lond.* **54** : 442—62
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**10. Objection received from R. V. Melville (Geological Survey and Museum, London) :** On 3rd August 1954 there was received in the Office of the Commission the following communication from Mr. R. V. Melville (*Geological Survey and Museum, London*) in which he expressed his objections to the proposal in the present case (Melville, 1954, *Bull. zool. Nomencl.* **9** : 348—349) :—

I have no claim to a specialist knowledge of ammonite-systematics, but from a general acquaintance with the group of ammonites in question, I feel that Dr. Spath's objections to the proposal that *Caenisites* be suppressed, carry more weight than the arguments put forward by Dr. Arkell and Dr. Donovan. I find it difficult to understand how these specialists can, in view of their reputation for scientific objectivity, question whether *Caenisites caeneus* belongs to the *turneri* group of ammonite species. The close relationship between *C. caeneus* and this group seems to me as obvious as any point of a taxonomic nature in fossils can be. The malformation of the holotype does not obscure the features which betray this relationship and upon which the generic assignation is based. At the most it might make specific determination difficult in the case of a specimen showing no overlap with the normal portion of the holotype ; though even this difficulty is diminished if Dr. Spath's view (that *C. caeneus* is a malformed variant of *Ammonites plotti* Reynès) is accepted.

I can see no danger to stability and uniformity of nomenclatorial usage in the perpetuation of the generic name *Caenisites*. An analogous case occurs in a group with which I am familiar. The echinoid genus *Hagenowia* Duncan, 1889 (*Journ. Linn. Soc.—Zool.* **23** : 210) has as type species (by monotypy) *Cardiaster rostratus* Forbes, 1852 (*Mem. geol. Surv.*, Decade IV : 1—4, pl. x, figs. 19—24). The holotype of this species is malformed in that the anterior rostrum which is the outstanding generic feature has been shortened by injury during life and has healed without regaining its original length. No difficulty has ever arisen in the interpretation of the genus or of the species, either taxonomically or nomenclatorially as a result of this malformation. The case of *Caenisites* seems to me closely similar and I support Dr. Spath's application for the official recognition of the name.

**11. Submission to the Commission in April 1956 of a Report by the Secretary :** In view of the relatively small number of comments received in regard to the present case and the differences of opinion disclosed by those which had been submitted, the Secretary decided at the close of the Prescribed Six-Month Waiting Period following publication in the *Bulletin of Zoological*



*Nomenclature* to postpone for a time the submission to the Commission of a Voting Paper in regard to the present case in the hope that thereby comments from other specialists might be received. When in the early part of 1956 it became evident that no further comments were to be expected, Mr. Hemming prepared for the consideration of the Commission the following Report on this case, to which he attached an Annexe in which he set out (i) the action which would require to be taken by the Commission if it were to decide in favour of the course recommended in the application submitted in this case (Alternative "A") and (ii) the positive action which would require to be taken in the event of the Commission deciding to reject the application submitted. Mr. Hemming's Report, which was completed on 8th April 1956, was as follows :—

**The Arkell/Donovan proposal for the suppression of the generic name "Caenisites" Buckman, 1925 (Class Cephalopoda, Order Ammonoidea) and the Spath counter-proposal for the acceptance of that name**

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

(Secretary to the International Commission on Zoological Nomenclature)

The purpose of the present note is to provide a summary of the arguments which have been advanced (a) in favour of the proposal submitted jointly by Dr. W. J. Arkell (*Sedgwick Museum, Cambridge University*) and Dr. D. T. Donovan (*Bristol University*) for the suppression under the Plenary Powers of the generic name *Caenisites* Buckman, 1925 (Class Cephalopoda, Order Ammonoidea) and (b) in favour of the counter-proposal submitted by Dr. L. F. Spath (*British Museum (Natural History)*) that the foregoing proposal should be rejected and that the above name should be placed on the *Official List of Generic Names in Zoology*.

2. A brief preliminary note on this case by Dr. Arkell was published in July 1953 (*Bull. zool. Nomencl.* **10** : 295—296) but owing to the preoccupation of this Office in the latter part of that year with matters arising out of the Copenhagen Congress, the actual application to the Commission by Dr. Arkell and Dr. Donovan was not published until February 1954 (*Bull. zool. Nomencl.* **6** : 364—366). At the same time Public Notice of the possible use of the Commission's Plenary Powers was given in the prescribed manner. In addition, such Notice was

given also to a number of general zoological serial publications and to certain palaeontological serials in Europe and America.

. . . . .

(NOTE : At this point there followed (a) a summary of the application received in the present case, (b) summaries of the five comments on that application which had already been published in the *Bulletin of Zoological Nomenclature*, namely, those received from Dr. Hölder and Dr. Haas, the first of the two communications received from Mr. Sylvester-Bradley and the comments received from Dr. Spath and Mr. Melville, and (c) the full text of the second communication received from Mr. Sylvester-Bradley, which latter had not been published in the *Bulletin*.

In order to avoid unnecessary repetition, the foregoing passage in Mr. Hemming's paper is here omitted, as all the documents there referred to have been reproduced in full in paragraph 1 and in paragraphs 6 to 10 respectively in the present *Opinion*.)

. . . . .

3. As Secretary to the Commission I have held back the submission to the Commission of a Voting Paper in this case for some considerable time beyond the normal period, hoping that as a result other specialists might contribute to the discussion of the issues involved. When recently I reviewed this case, I came to the conclusion that nothing was to be hoped for from this source and therefore that the problem involved ought to be submitted to the Commission for decision without further delay. It appeared proper to me however, before doing so, to provide Dr. Arkell and Dr. Donovan with an opportunity for commenting upon the counter-proposal submitted by Dr. Spath and Mr. Sylvester-Bradley. Dr. Arkell had previously written saying :—“ I have received a copy of comments on this [i.e. on *Caenisites*] by Sylvester-Bradley, but they do not move me from the position that a deformed specimen should not be accepted as type for a genus. Anyone thinking otherwise should be required to produce a second specimen that could be agreed to be an undeformed *Caenisites caeneus*. Donovan tried to do this but failed.” In his reply to my recent inquiry Dr. Arkell expressed the view that Dr. Donovan had shown the type specimen of *Caenisites* to be a pathological monstrosity of doubtful generic identity and that in consequence he could not believe that anyone would insist on using it for an important genus, containing a zonal index species. Dr. Donovan, after re-affirming his belief that *Caenisites caeneus* Buckman and the *turneri*-group of species were not congeneric, proceeded as follows :—“ The primary reason for regarding the name (*Caenisites*) as unsatisfactory is that any species, and therefore a

genus with such a type species, founded on a type which appears to be malformed, is unsatisfactory, for there is always liable to be disagreement as to (a) whether it is, in fact, a malformation and (b) if so, whether the fact should be 'allowed for' in interpreting the species. In my view one can only interpret a species by its type specimen, and not by what the type specimen might have been if it had not been malformed."

4. Before summarising the various conclusions which it might be possible to form in the light of the evidence submitted, I wish to place on record two points, neither of which was touched upon in the papers relating to this case. These are :—

- (1) Difficulties in the interpretation of a given nominal species arise in the majority of cases from the fact that the type specimen is no longer in existence and that it is necessary in consequence to rely upon the original description or figure provided by the original author. This is not the case in the present instance, the type specimen of the disputed nominal species *Caenisites caeneus* Buckman being preserved in the collection of the Geological Survey, London, where it bears the Registered Number G.S.M.47573. This specimen is known to have been examined by Arkell and Donovan, who take one view as to its interpretation and by Spath and Melville who take the opposite view.
- (2) Under a General Directive issued by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the Commission is bound, when considering a proposal that it should place a given generic name on the *Official List of Generic Names in Zoology*, to ascertain whether that generic name has been taken as the base for a family-group name, in order that in suitable cases it may place that name on the *Official List of Family-Group Names in Zoology*. In the present case there is no family-group-name problem to be considered, for Dr. Donovan has informed me (*in litt.*, 26th March 1956) that neither the name *Caenisites* nor the name *Euasteroceras* has been taken as the basis for a family-group name, this genus or these genera being currently placed in the subfamily ASTEROCERATINAE Spath, 1946, of the family ARIETITIDAE Hyatt, 1874.

5. *Possible Courses of Action* : The present case is one of some delicacy, for, although the action asked for is purely nomenclatorial in character, many of the arguments which have been brought forward either in favour of the application submitted or in opposition to it depend for their validity upon taxonomic considerations, the determination of which lies outside the scope of the functions of the Commission. The considerations which are strictly nomenclatorial

in character and which might be regarded as relevant in the present case may be summarised as follows :—

- (a) The Commission might accept the view that it would be inappropriate that a nominal genus should have as its type species a nominal species whose type specimen is a pathological monstrosity. In the present case all the specialists concerned, though sharply divided on other matters, are agreed that the unique holotype of *Caenisites caeneus* Buckman, 1925, the type species of the genus *Caenisites* Buckman, 1925, is such a monstrosity. Accordingly, if the Commission were to take the foregoing view, its natural course would be to suppress the generic name *Caenisites* Buckman under its Plenary Powers.
- (b) The Commission might take the view that, having regard to the fact that leading specialists are unable to agree either as to the interpretation of the nominal species *Caenisites caeneus* Buckman or as to the generic affinities of the species so named, that nominal species is unsuitable to serve as the type species of a genus, to which, on one of the competing interpretations of *Caenisites caeneus* Buckman, would be referable the *turneri*-group of ammonite species, a group which is stated to be one of importance and to contain a zonal index fossil. If the Commission were to take the foregoing view, its natural course would be to suppress the generic name *Caenisites* Buckman, thus making way for the generic name *Euasteroceras* Donovan (type species : *Ammonites turneri* Sowerby (J. de C.), 1824), which it is agreed by both groups of specialists would then become the oldest such generic name for the *turneri* group of species.
- (c) The Commission will need also to consider carefully the quite different solution recommended by Dr. Spath, namely, that it should confine itself\* to placing the generic name *Caenisites* Buckman and the specific name *caeneus* Buckman, as published in the combination *Caenisites caeneus*, on the appropriate *Official Lists* of valid names. In the actual form submitted Dr. Spath's proposal, unless supplemented in some appropriate fashion, would either (i) involve the acceptance by the Commission at least tacitly of the view that the genus *Caenisites* Buckman is the appropriate genus for *Ammonites turneri* Sowerby or (ii) would fail to deal with the portion of the original Arkell/Donovan proposal relating to the provision

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\* In Dr. Spath's original proposal (*Bull. zool. Nomencl.* 9 : 348) it was proposed also that the generic name *Euasteroceras* Donovan should be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*, but this proposal has since been withdrawn by Dr. Spath as inappropriate in view of the fact that the above name is an objectively available name and, on his interpretation of the taxonomic issues involved, is no more than a subjective junior synonym of *Caenisites* Buckman.

of a generic name for that species. The assumption noted in (i) above would lead the Commission outside its proper field by involving it in taking a view on a purely taxonomic matter, while the omission noted in (ii) above would offend against the canon that it is the duty of the Commission when considering any given nomenclatorial question to deal with all the issues so involved. These defects could however be overcome by the resort by the Commission to the procedure laid down by the Thirteenth International Congress of Zoology, Paris, 1948, under which in cases where there are differences of opinion among specialists as to the taxonomic content of a genus the name of which it is desired should be placed on the *Official List*, the Commission is instructed to place on the *Official List* both (or all) of the generic names concerned, at the same time adding to the entry relating to the later-published of the names concerned an endorsement that it is placed on the *List* for use by those specialists who hold the taxonomic view that the genus so named is taxonomically distinct from the genus having the older of the names concerned (see 1950, *Bull. zool. Nomencl.* 4 : 268, Point (b)). If this procedure were to be adopted in the present case, the name *Euasteroceras* Donovan would be placed on the *Official List* at the same time that the name *Caenisites* Buckman was placed thereon, subject to the endorsement of the entry relating to the name *Euasteroceras* Donovan that it was placed on the *List* for use by specialists who held the taxonomic view that the species which are the respective type species of the above genera are not congeneric with one another. The proposal submitted by Dr. Spath, amplified in the foregoing manner and thus freed of any assumption on purely taxonomic matters, would be perfectly in order. So long however as the existing differences on taxonomic matters persist among specialists, such a solution would not ensure stability for the generic nomenclature for the species *Ammonites turneri* Sowerby.

6. It has been thought necessary to lay before the Commission the foregoing somewhat lengthy account of the history of this case owing to the fact that one of the documents to be considered was received so long after the close of the Prescribed Waiting Period that it was not practicable to arrange for its publication in the *Bulletin of Zoological Nomenclature*. In consequence an objective presentation of the views submitted by specialists could, in the view of this Office, be secured only if, when the document referred to above (i.e. the document reproduced in paragraph 2(c) above) was presented to the Commission, a much fuller account than would otherwise have been necessary were given of the views submitted by other specialists. Further, it was considered desirable to give the rather detailed analysis of the issues involved provided in paragraph 4 above in order to assist the Commission to isolate the purely nomenclatorial issues involved

from the purely taxonomic issues raised in a number of the documents submitted, these latter issues being of no concern to the Commission and lying outside its province.

7. In the light of the considerations outlined in the preceding paragraphs the International Commission is now invited to make an affirmative choice between the two opposing alternatives set out in the Annexe attached to the present paper. ALTERNATIVE "A" sets out a Ruling under which either for the reason set out in Section (a) of paragraph 5 above or for that set out in Section (b) of the same paragraph the Commission would use its Plenary Powers to suppress the generic name *Caenisites* Buckman for the purpose of providing an assured generic name for the species named *Ammonites turneri* Sowerby. The action set out in this Alternative is that recommended by Dr. Arkell and Dr. Donovan in their original application. ALTERNATIVE "B" sets out a Ruling under which the Commission would confine itself to placing on the *Official List* both the generic names involved in this case (*Caenisites* and *Euasteroceras*), an endorsement being made to the entry relating to the later-published of the above names (*Euasteroceras*) that it is placed on the *Official List* for use by specialists who on taxonomic grounds, consider the genus so named to be distinct from *Caenisites* Buckman. The action set out in this Alternative is that proposed by Dr. Spath after that proposal has been purged of any possible taxonomic implications by being brought, as explained in Section (c) of paragraph 5 of the present paper, into harmony with the procedure prescribed by the Paris Congress for adoption in cases where it is proposed that a given generic name should be placed on the *Official List* but where there are differences of opinion among specialists as to the taxonomic scope of the genus concerned.

## ANNEXE

### Alternative Rulings submitted for the consideration of the International Commission on Zoological Nomenclature

#### Part 1 : ALTERNATIVE "A"

(suppression of the generic name " *Caenisites* ")

(The Arkell/Donovan proposal)

(1) Under the Plenary Powers the generic name *Caenisites* Buckman, 1925 (Class Cephalopoda, Order Ammonoidea), 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* :—*Euasteroceras* Donovan, 1953 (gender : neuter) (type species, by original designation : *Ammonites turneri* Sowerby (J. de C.), 1824).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* :—*turneri* Sowerby (J. de C.), 1824, as published in the combination *Ammonites turneri* (specific name of type species of *Euasteroceras* Donovan, 1953).

(4) The generic name *Caenisites* Buckman, 1925, as suppressed under the Plenary Powers under (1) above, is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*.

Part 2 : ALTERNATIVE “ B ”

(Refusal to suppress the generic name “ *Caenisites* ”)

(*The Spath proposal amplified as explained in Section (c) of paragraph 5 of the present paper*)

(1) The request for the suppression under the Plenary Powers of the generic name *Caenisites* Buckman, 1925 (Class Cephalopoda, Order Ammonoidea) is hereby refused.

(2) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* :—

- (a) *Caenisites* Buckman, 1925 (gender : masculine) (type species, by monotypy : *Ammonites caeneus* Buckman, 1925) ;
- (b) *Euasteroceras* Donovan, 1953 (gender : neuter) (type species, by original designation : *Ammonites turneri* Sowerby (J. de C.), 1824) (the entry so made to be subject to the endorsement that the name *Euasteroceras* Donovan is placed on the *List* for use by those specialists who consider on taxonomic grounds that the type species of the genus so named is generically distinct from the type species of the genus *Caenisites* Buckman, 1925).

(3) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* :—

- (a) *caeneus* Buckman, 1925, as published in the combination *Caenisites caeneus* (specific name of type species of *Caenisites* Buckman, 1925) ;

- (b) *turneri* Sowerby (J. de C.), 1824, as published in the combination *Ammonites turneri* (specific name of type species of *Euasteroceras* Donovan, 1953).

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

**12. Issue of Voting Paper V.P.(56)18 :** On 25th April 1956 a Voting Paper (V.P.(56)18) was issued in which the Members of the Commission were invited to vote for either "Alternative 'A' (suppression of the generic name *Caenisites*) as set out in Part 1 of the Annexe to the paper submitted by the Secretary simultaneously with the present Voting Paper" [i.e. as set out in the Part numbered as above in the Annexe to the paper reproduced in paragraph 11 above] or "Alternative 'B' (refusal to suppress the generic name *Caenisites*) as set out in Part 2 of the Annexe to the paper referred to above".

**13. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 25th July 1957.

**14. Particulars of the Voting on Voting Paper V.P.(56)18 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)18 was as follows :—

- (a) *Votes in favour of "Alternative 'A'" has been given by the following twelve (12) Commissioners (arranged in the order in which Votes were received) :*

Holthuis ; Boschma ; Hering ; Bodenheimer ; Prantl ; Hankó ; Dymond ; Jaczewski ; Bonnet ; Mertens ; Tortonese ; Hemming ;



(b) *Votes in favour of "Alternative 'B'" had been given by the following twelve (12) Commissioners (arranged in the order in which Votes were received) :*

Vokes ; Esaki ; do Amaral ; Lemche ; Key ; Mayr ;  
Riley ; Cabrera ; Stoll ; Sylvester-Bradley ; Kühnelt ;  
Miller ;

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

Bradley (J.C.) ;

(d) *Voting Papers not returned :*

None.

**15. Declaration of Result of Vote :** In view of the fact that as shown in paragraph 14 above, the votes on Voting Paper V.P.(56)18 were equally divided, Mr. Hemming took the view at the close of the Prescribed Voting Period that it was desirable to postpone the declaration of the vote taken on the foregoing Voting Paper until a decision had been taken by the Commission on certain matters relating to the procedure to be followed in dealing with applications involving the possible use of the Commission's Plenary Powers, it being possible that the decision to be taken by the Commission in this matter might affect the procedure to be followed in the present case. The question of procedure referred to above was dealt with later by the Commission on Voting Paper V.P.(O.M.)(57)3, the vote on which was completed

on 29th April 1957. The decision so taken was embodied in *Declaration 34* (now in the press<sup>3</sup>) on 21st May 1957. In that *Declaration*, however, the Commission dealt only with the procedure to be followed when an application for the use of the Plenary Powers received a majority of the votes cast but failed to secure two out of every three votes cast. Thus the procedure to be followed when such an application received only a minority of the votes cast or where, as in the present case, the votes cast in favour of such a proposal and those cast against it were equal in number was not affected by the foregoing *Declaration*, the normal procedure remaining applicable to such cases. The adoption of the above *Declaration* cleared the ground for the declaration of the vote taken on Voting Paper V.P.(56)18 in relation to the proposal for the suppression under the Plenary Powers of the generic name *Caenisites* Buckman, 1925. Accordingly on 30th April 1957 (the day following the adoption of *Declaration 34*), Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on the above Voting Paper, signed a Certificate that the votes cast were as set out in paragraph 14 above and declaring as follows the result of the vote so taken, namely (a) that the application for the suppression of the generic name *Caenisites* Buckman under the Plenary Powers, as set out under the title "Alternative 'A'" in Part 1 of the Annexe to the paper submitted by the Secretary concurrently with the above Voting Paper [i.e. in Part 1 of the Annexe to the paper reproduced in paragraph 11 of the present *Opinion*], having not secured two out of every three votes cast on the above Voting Paper, had failed to obtain the approval of the Commission, (b) that, as in the vote so taken the above proposal had not even obtained an absolute majority of the votes cast, the provisions of *Declaration 34* were not applicable in the present case, and consequently (c) that the proposal as set out under the title "Alternative 'B'" in Part 2 of the Annexe to the paper referred to above, namely, the proposal for the rejection of the proposal submitted under the title "Alternative 'A'" in Part 1 of the said Annexe, had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

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<sup>3</sup> The *Declaration* here referred to was published on 3rd September, 1957. (Part 2 of the present volume.)

**16. Preparation of the Ruling given in the present "Opinion" :**

On 5th June 1957, 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)18.

**17. 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* :—

*caeneus*, *Caenisites* Buckman, 1925, *Type Ammonites* 5 : pl. DLXXII

*Caenisites* Buckman, 1925, *Type Ammonites* 5 : pl. DLXXII

*Euasteroceras* Donovan, 1953, *Proc. geol. Soc. Lond.* No. 1503 : xiii—xiv

*turneri*, *Ammonites*, Sowerby (J. de C.), 1824, *Min. Conch.* 5 : 75, pl. 452

**18. Family-Group-Name Problems :** The Office of the Commission has been informed by Dr. Donovan (one of the applicants in the present case) (Donovan, *in litt.*, 26th March 1956) that neither of the generic names dealt with in the present *Opinion* has been taken as the base for a family-group name.

**19.** 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.

20. The present *Opinion* shall be known as *Opinion* Four Hundred and Eighty-Two (482) of the International Commission on Zoological Nomenclature.

DONE in London, this Fifth day of June, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

Key

# 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 17. Part 5. Pp. 41—72

## OPINION 483

Determination of the specimen to be accepted as the lectotype of the nominal species *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera) and matters incidental thereto



**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

**Price One Pound One Shilling and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 483

### 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 (*University of Tulane, Department of Geology, New Orleans,  
Louisiana, 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 483

### DETERMINATION OF THE SPECIMEN TO BE ACCEPTED AS THE LECTOTYPE OF THE NOMINAL SPECIES "MEGATHYMUS ARYXNA" DYAR, 1905 (CLASS INSECTA, ORDER LEPIDOPTERA) AND MATTERS INCIDENTAL THERETO

**RULING** :—(1) It is hereby directed (a) that under *Declaration* 35 the specimens figured respectively as figure 3 and figure 4 on plate 69 of Volume 3 of the Lepidoptera-Heterocera Section of the work by Godman (F.D.) & Salvin (O.) entitled *Biologia centrali-americana* are to be accepted as having been the sole syntypes of the nominal species *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera) at the time when the foregoing binomen was first published and (b) that the specimen labelled "Mex[ico]" now in the collection of the British Museum (Natural History), which was figured as figure 4 on the plate referred to above, is to be accepted as the lectotype of the nominal species *Megathymus aryxna* Dyar, 1905, that specimen being the first of the syntypes specified in (a) above to have been selected as the lectotype of the foregoing species, the selection in question having been made by Skinner (H.) & Williams (R.C.) Jr. in 1924.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1222 :—

*Megathymus* Scudder, 1872 (gender : masculine) (type species, by original designation : *Eudamus ? yuccae* Boisduval & Leconte, [1837]).

(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) *aryxna* Dyar, 1905, as published in the combination *Megathymus aryxna*, as interpreted by the lectotype specified in (1)(b) above (Name No. 1385) ;
- (b) *neumoegeni* Edwards (W.H.), 1882, as published in the combination *Megathymus neumoegeni* (Name No. 1386) ;
- (c) *yuccae* Boisduval & Leconte, [1837], as published in the combination *Eudamus ? yuccae* (specific name of type species of *Megathymus* Scudder, 1872) (Name Nb. 1387).

(4) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name No. 192 :—

MEGATHYMIDAE Comstock (J.H.) & Comstock (A.B.), 1895 (type genus : *Megathymus* Scudder, 1872).

## I. THE STATEMENT OF THE CASE

On 23rd December 1954 Mr. Cyril F. dos Passos (*The American Museum of Natural History, New York*) submitted to the International Commission on Zoological Nomenclature on behalf jointly of Mr. Ernest L. Bell (of the same Museum) and himself a preliminary application for a Ruling that the specimen taken in Mexico selected as the lectotype by Skinner & Williams (1924) for the nominal species *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera) was the valid lectotype of that nominal species. In the early part of 1955 this application was



slightly revised by the applicants, the final text, which was submitted on 28th February 1955, being as follows :—

**Request for a Ruling as to the specimen to be accepted as the lectotype of "Megathymus aryxna" Dyar, 1905 (Class Insecta, Order Lepidoptera)**

By CYRIL F. DOS PASSOS, LL.B.

(Research Associate, American Museum of Natural History, New York ; Research Associate, Carnegie Museum, Pittsburgh)

and

ERNEST L. BELL

(Research Associate, American Museum of Natural History, New York)

**The Facts**

1. *Megathymus neumoeeni* was described by Edwards in 1882.

2. Page 320 of volume 2 (1896) and plate 69 of volume 3 ([1897]) of the Lepidoptera-Heterocera section of the *Biologia Centrali-Americana* described and figured (figs. 3 and 4) two specimens identified by Druce as "*neumoeeni*".

3. *Megathymus aryxna* was described by Dyar in 1905, the description reading as follows :

"*M. aryxna*, new species.

"This is the form figured in the *Biologia Cent.—Am. Lep. Het.*, III, pl. 69, figs. 3 and 4. It differs from *neumoeeni* in having the fulvous markings considerably reduced, the outer band being broken into spots. I have ten specimens from Arizona from Dr. Barnes and Mr. Poling . . .".

4. *Megathymus drucei* was described by Skinner in 1911, being a new name proposed by him for figure 3 of the above-mentioned (paragraph 2) specimens figured in the *Biologia* as "*neumoeeni*".

5. Barnes and McDunnough in 1912 stated that Dyar had restricted the name *aryxna* to a single specimen, not being one of the specimens figured in the *Biologia*, but being one of the "ten specimens from Arizona" referred to above (paragraph 3). This Dyar did not do beyond writing a label at or about that time, and affixing it to one of those ten specimens. Just when Dyar did this is not known.

6. Skinner and Williams in 1924 restricted the type of *Megathymus aryxna* to figure 4 of the *Biologia*, saying "we select this figure as the type of *aryxna* Dyar". This specimen which is labelled "Mex[jico]", is now preserved in the British Museum Collection.

7. Omitting references to Catalogues and Check Lists, which are not considered usually taxonomic papers, it may be stated that so far as we have been able to find Skinner (1911), Skinner and Williams (1924), Freeman (1950), and Bell and dos Passos (1954) have used the name *Megathymus aryxna* in the manner in which the present authors wish it to be recognized by the International Commission, while Holland (1898), Barnes and McDunnough (1912), Draudt (1924), Holland (1931), and Stallings and Turner (1954) have used it in the other sense.

### The Issue

8. The question at issue is whether the lectotype of *Megathymus aryxna* is the specimen in the British Museum (Natural History), figured in the *Biologia* (pl. 69, fig. 4), or one of the ten specimens in the United States National Museum, to which Dyar attached a label stating that the name *aryxna* was restricted to that specimen. This issue is raised by two recent papers, the first by Stallings and Turner (1954) and the second by Bell and dos Passos (1954).

### The Argument

9. Upon the foregoing statement of facts and the assumption that the ten specimens from Arizona constituted part of the type series, it is contended by Stallings and Turner that Barnes and McDunnough in 1912 effectively published the unpublished restriction of Dyar, but they cite no reference for this conclusion beyond page 23 of volume 1, Number 3 of the *Contributions to the Natural History of the Lepidoptera of North America*, although in such an important matter the restriction should be quoted, or at least cited to the very line. We have read that page carefully, but can find no language approaching a restriction which should be always clear and unequivocal. The nearest approach to such a statement is on lines eight, nine and ten of Barnes and McDunnough's work where they state that "at our suggestion Dr. Dyar has restricted the name *aryxna* to the *unnamed form* [italics ours] of which fig. 1 represents a co-type". This reference must be Dyar's label, because admittedly there is no published restriction by him, but is that a valid restriction by Dyar? Since when does writing a label and affixing it to a specimen constitute a restriction? How can a name be restricted to an "unnamed form" by which Barnes and McDunnough referred to four of the ten specimens that did not agree with any part of the description? For they said "Dyar's original diagnosis of this species cannot apply to it in its restricted form". As

noted, when Barnes and McDunnough came to figure the "unnamed form" they did not call it a lectotype but a "co-type". It was not even that, because those four specimens were never part of the type series.

10. Stallings and Turner say in reference to the second sentence of Dyar's description "Frankly, we are unable to determine which of the two species he was describing". As far as we know, no one else has had any difficulty in determining which specimens Dyar was describing. *Megathymus aryxna* was, in fact, nothing but a substitute or new name for specimens which Dyar claimed were erroneously identified as "*neumoegeni*" by Druce in the *Biologia*. Stallings and Turner fail to quote the first sentence of the original description, but admit "The first sentence in his description does refer to Fig. [sic.] 3 & 4 in the *Biologia*." Obviously the description is in the first sentence. The second sentence that Stallings and Turner quote is more comparative than descriptive.

11. In concluding their argument on this subject, Stallings and Turner refer without page citation to "the action of the International Commission last August at the Copenhagen Congress with reference to the Principle of the First Reviser", but fail to state how that principle is in any way relevant to the facts. That principle "is to be rigidly construed", and relates "in the case of specific names, only when an author, after citing two or more such names published in the same book and on the same date, clearly indicates by whatever method, (a) that he is of the opinion that the nominal species so named represent the same taxon, and (b) that he is selecting one of the names concerned, to the exclusion of the other name or names, to be the name to be used for that taxon" (Hemming, 1953). There is no such situation here.

12. On the other hand, Bell and dos Passos conclude from the evidence :

- (1) that the type series of *aryxna* consists only of the two specimens figured in the *Biologia*, and does not include any of the specimens to which Dyar may have intended, seven years later, to restrict that name, because being a substitute name the types were only those two specimens (see Decision 142 of the 1953 Copenhagen Congress) ;
- (2) that the action of Skinner in giving the name *drucei* to the specimen illustrated as figure 3 of the *Biologia* automatically restricted the name *aryxna* to figure 4, that being the only remaining syntype ;

- (3) that neither Dyar, as Stallings and Turner admit by stating "He never published this restriction", nor Barnes and McDunnough ever published any restriction, publication being an essential part of such a selection (see Decision 137(4) of the 1953 Copenhagen Congress);
- (4) that Skinner and Williams expressly restricted the type of *aryxna* to figure 4 of the *Biologia*, and after selecting figure 4 of the *Biologia* as "the type of *aryxna* Dyar", said "The shifting of the concept by Dyar at the suggestion of Barnes and McDunnough is not valid". Actually it was not a shifting at all, but at most a contemplated shifting that was never carried out in any manner.

### Conclusion

13. As shown in paragraph 7 above, there is no uniform usage of the name *aryxna*, it having been used about half of the time in the manner advocated herein and the other half as used by Stallings and Turner, and it is impossible for there to be any stability in the nomenclature of some species of *Megathymus* until the International Commission has designated the lectotype of *aryxna*.

14. Under the theory of Stallings and Turner the pertinent synonymy would read :

*Megathymus neumoegei* Edwards, 1882  
*aryxna* Dyar, 1905 (*partim*)

*Megathymus aryxna* Dyar, 1905  
*evansi* Freeman, 1950

*Megathymus drucei* Skinner, 1911

15. The present authors believe however that it should read :

*Megathymus neumoegei* Edwards, 1882  
*aryxna* Dyar, 1905

*Megathymus evansi* Freeman, 1950

*Megathymus drucei* Skinner, 1911.

16. It is to avoid any further confusion in the use of this name that the present application is made.

17. We have refrained from considering the validity on taxonomic grounds of some of the above-mentioned taxa, and the above synonymy is not to be considered as an expression of any opinion on our part

concerning that problem, because that is a subjective matter and does not concern the International Commission. Once the type of *aryxna* is fixed, other problems will solve themselves.

18. The International Commission on Zoological Nomenclature is accordingly requested :

(1) to give a Ruling :—

(a) that the sole syntypes of the nominal species *Megathymus aryxna* Dyar, 1905, were the specimens figured respectively under the name *Megathymus neumoegei* as figures 3 and 4 on plate 69 of volume 3 of the Lepidoptera-Heterocera Section of Godman and Salvin's *Biologia centrali-americana* ;

(b) that the specimen labelled " Mex[ico] " now in the British Museum Collection, which was figured as figure 4 on the plate referred to above is the lecto-type of the nominal species *Megathymus aryxna* Dyar, having been duly selected as such by Skinner and Williams (1924 : 205) ;

(2) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—

(a) *neumoegei* Edwards, 1882, as published in the combination *Megathymus neumoegei* ;

(b) *aryxna* Dyar, 1905, as published in the combination *Megathymus aryxna* and as defined by the Ruling given in (1)(b) above.

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**2. Counter-proposals submitted by Don R. Stallings and J. R. Turner (Caldwell, Kansas, U.S.A.) :** The application submitted by Mr. dos Passos and Mr. Bell disclosed the existence of a sharp

disagreement between themselves on the one hand and Mr. Don R. Stallings and Mr. J. R. Turner (*Caldwell, Kansas, U.S.A.*) on the other hand, the latter specialists taking the view that the valid lectotype of the nominal species *Megathymus aryxna* Dyar was the specimen taken in Arizona so specified by Barnes & McDunnough in 1912. This problem, which turned on the question whether the Arizona specimen could properly be regarded as having been one of the syntypes of the foregoing nominal species, was one of importance in the systematics of the group concerned, it being agreed by all concerned that the two specimens referred to above were not conspecific with one another. Upon the receipt of the application submitted by Mr. dos Passos and Mr. Bell, the Secretary decided that in the circumstances described above the first step which should be taken was to notify Mr. Stallings and Mr. Turner of the receipt of the foregoing application, in order thereby to provide those specialists with an opportunity of presenting their views on the question at issue. In response to the communication so made, Mr. Stallings and Mr. Turner on 22nd February 1956 addressed to the Office of the Commission the following communication in which they asked for the rejection of the proposal submitted by Mr. dos Passos and Mr. Bell and for the adoption in its place of a counter-proposal in favour of the acceptance as the lectotype of *Megathymus aryxna* Dyar of the specimen from Arizona mentioned by Dyar and later specified by Barnes and McDunnough :—

**On the question of the lectotype of “*Megathymus aryxna*” Dyar,  
1905**

By DON B. STALLINGS

and

J. R. TURNER

(*Caldwell, Kansas, U.S.A.*)

The writers have given considerable thought to the proper application of the name *Megathymus aryxna* Dyar, 1905. Some of these thoughts have been expressed in our recent paper published in *The Lepidopterists' News*, 1954, page 77, entitled “Notes on *Megathymus neumoegei*, with Description of a New Species (Megathymidae)”. For convenience we will refer in this paper to the various species involved in the same manner as we did in the above mentioned publication.

To commence with at the time Dyar (1905) described *Megathymus aryxna* (*J. N. Y. ent. Soc.* 13 : 141) he probably was one of the few men who knew what true *Megathymus neumogeni* Edwards was. In his description of *M. aryxna* he refers first to two specimens pictured at figures 3 and 4, Plate 69, of Vol. 3 of the Lep.-Het. Section of Godman & Salvin's *Biologia centr.-amer.* and then to ten specimens before him. These ten specimens before him were all from the State of Arizona, U.S.A. the two specimens referred to in *Biol. Centr.-Amer.* were from Mexico. Unfortunately the ten specimens before Dyar consisted of two species, six specimens of what we call Species No. 1 and four specimens of what we call Species No. 2. The two specimens in *Biol. Centr.-Amer.* appear to be Species No. 1—they are certainly not Species No. 2.

The literature thereafter is not helpful. The name *M. neumogeni* Edwards is consistently applied to the above mentioned Species No. 1. This fact is most important in order properly to understand what happened thereafter.

Sometime in 1910 or shortly before then Barnes and McDunnough suggested to Dyar that Species No. 1 was *M. neumogeni* and that he should restrict his name of *aryxna* to Species No. 2. This he did as explained in the following passage in our paper in the *Lepidopterists' News* (: 78), namely :—

to the extent of making a label as follows and attaching  
it to one specimen of Species No. 2 :—

Megathymus  
aryxna  
Cotype            Dyar  
(Sensu Restr.) (1910)

He never published his restriction but we believe that Barnes and McDunnough did in their paper of 1912 "Contrib. to the Natural History of the Lepidoptera of North America, Vol. 1, No. 3, Revision of the Megathymidae". At page 23, lines 8, 9 and 10, Barnes and McDunnough say ". . . at our suggestion Dr. Dyar has restricted the name *aryxna* to the unnamed form of which fig. 1 represents a co-type". Their Figure 1 of Plate 1 is a picture of the specimen that Dyar attached the restricting label to. It is our opinion that this was a sufficient publication of the restriction and at that time the name *aryxna* became fixed.

Barnes and McDunnough did not then particularly help the situation by proceeding to say that the description of *aryxna* (as described by Dyar) did not fit the Species No. 2 which he restricted it to. *With*



*this we cannot agree.* Turn to our paper, Plate 2, top and second row—this is true *neumoegeni*—note how the veins do not have any dark colouring along the area of light colouration so that the light areas do not appear to be divided (by the veins) into spots. Now look at Plates 1, 2 and 3 at all of the males of the various other species involved (Dyar had only males before him when he described *aryxna*) and note how the outer lines (of lighter colour) are divided into spots (by the veins having dark colouring). Dyar's description is "It differs from *neumoegeni* in having the fulvous markings considerably reduced, the outer band being broken into spots". It is immediately evident that his description applies equally well to Species No. 1 as to Species No. 2. Hence we are not faced with the problem of the description not fitting the species.

As we see the situation there are two problems to be decided. 1. Does the description of *aryxna* fit the species as restricted by Dyar. 2. Is the restriction of Dyar valid. The answer to both questions in our opinion, is yes.

There is no great problem involved in the literature and the name *aryxna*. The name has only been used in about a dozen different publications. In about half of the publications the author was without information and it is impossible to determine what they were applying the name to. In our paper we have cited the literature in which the name is used in such a manner that you can determine whether the name was applied to Species No. 1 or Species No. 2.

We are unable to give the importance to the fact that Dyar mentioned the two specimens in *Biol. centr.-amer.* before he did the ten before him that Bell and Dos Passos do in their recent paper "The Lectotype of *Megathymus aryxna* Dyar (Lepidoptera, Megathymidae)" American Museum Novitates, No. 1700, Dec. 20, 1954, published shortly after our paper. If this priority is important, then by the same token, Fig. 3 becomes the key—not Fig. 4. To us it appears that Dyar was describing a new species from Arizona—not from Mexico, the specimens before him were what he was describing—he was merely referring to the specimens in the Biolo. as being the same thing. Even should it be determined that his restriction was not valid we feel it would be an error to designate either of the Mexican specimens as the lectotype.

While the writers feel that the foregoing is the correct situation in regard to the proper application of the name *aryxna* we would not at all be adverse to a waiver of the rules so that the name *aryxna* could be applied to Species No. 1, leaving the name *M. evansi* Freeman available to Species No. 2. This would probably mean, of course, that the lectotype of *aryxna* would then be designated as the Mexican specimen, following Skinner—which we do not feel was the intention of Dyar.

## II. THE SUBSEQUENT HISTORY OF THE CASE

**3. Registration of the present application :** Upon the receipt in December 1954 of the preliminary communication addressed to the Office of the Commission by Mr. dos Passos and Mr. Bell the question of the determination of the specimen to be accepted as the lectotype of the nominal species *Megathymus aryxna* Dyar, 1905, was allotted the Registered Number Z.N.(S.) 889.

**4. Support for the dos Passos/Bell application received from W. H. Evans prior to publication :** At the same time that Mr. Hemming acquainted Mr. Stallings and Mr. Turner of the receipt of the application submitted by Mr. dos Passos and Mr. Bell (paragraph 2 above) he sought also the views of Brigadier W. H. Evans (*British Museum (Natural History), London*), the well-known specialist in the Hesperiiidae of the world. On 19th January 1956 Brigadier Evans replied as follows intimating his support for the dos Passos/Bell proposal :—

Your Z.N.(S.) 889 of 18th January re lectotype of *Megathymus aryxna*, I am in entire agreement with the views expressed by Bell and dos Passos.

Up to the publication in 1950 by Freeman of *evansi* the practice was to regard *aryxna* as = *neumoegeni*, vide "Hesperioidea of N. America" by Lindsey Bell and Williams, 1931, the latest publication.

Early in the war I worked out *Megathymus* in the British Museum Collection and found that there were two species occurring together in Arizona over the label *neumoegeni*. I looked up the literature and found that the second species was the *aryxna* of Barnes & McDunnough but not of Dyar, whose type must be taken as fig. 4 in the *Biologia*. I sent my analysis to Bell, suggesting he should call the second species *drucei*.

During 1952 and 1953 discussion took place between the two schools of thought in America. I was called upon by both sides to furnish photographs and genitalia drawings of Druce's figs. 3 and 4, both of which are in the British Museum bearing a label "B.C.A.Lep Het *Megathymus neumoegeni*".

Stallings & Turner published their solution of the problem in 1954. This reached me just before the paged proofs of vol. 4 of *Catalogue of American Hesperiiidae in the British Museum* went to press and I added a postscript—"The decision that *aryxna* = *evansi* disregards the law

that a type must agree with the original description". On the receipt of the Bell & dos Passos separate, Mr. Riley sent a note to the printers asking them to add that their paper confirmed my opinion.

**5. Publication of the applications submitted in the present case and of Brigadier Evans' comment thereon :** The application submitted jointly by Mr. dos Passos and Mr. Bell, the counter-proposal submitted jointly by Mr. Stallings and Mr. Turner and Brigadier Evans' comment on the issues raised in the present case were sent to the printer on 23rd August 1955. These documents were published on 30th December 1955 in Part 9 of Volume 11 of the *Bulletin of Zoological Nomenclature* (dos Passos & Bell, 1955, *Bull. zool. Nomencl.* **11** : 289—294 ; Stallings & Turner, 1955, *ibid.* **11** : 295—296 ; Evans, 1955, *ibid.* **11** : 294).

**6. Comments received :** Comments on the applications received in the present case were received from five zoologists, of whom two were lepidopterists, the others being specialists in other groups. The two lepidopterists (J. A. Comstock ; Alexander B. Klots) supported the dos Passos/Bell proposal and so did one of the other zoologists (E. Mayr). The two remaining non-lepidopterists (J. Chester Bradley ; C. W. Sabrosky) were opposed to that proposal. In addition, a sixth zoologist (C. L. Remington) notified the Office of the Commission that he was opposed to the dos Passos/Bell proposal but that pressure of university work at that time made it impossible for him to furnish a considered statement of his views. The communications received in the present case are reproduced in the immediately following paragraphs.

**7. Support for the dos Passos/Bell proposal received from John Adams Comstock (Southern California Academy of Sciences, California, U.S.A.) :** On 19th May 1956 Dr. John Adams Comstock (*Southern California Academy of Sciences, California, U.S.A.*) addressed the following letter to the Office of the

Commission in support of the dos Passos/Bell proposal (Comstock, 1956, *Bull. zool. Nomencl.* 12 : 48) :—

I wish to go on record as favoring the position taken by Messrs. dos Passos and Bell.

In a paper now in press, dealing with the life history of *Megathymus evansi* Freeman, I have expressed the same opinion as that voiced in the "Request for a Ruling . . ."

**8. Support for the dos Passos/Bell proposal received from Alexander B. Klots (American Museum of Natural History, New York, U.S.A.) :** On 23rd June 1956 Professor Alexander B. Klots (*American Museum of Natural History, New York, U.S.A.*) addressed the following letter to the Office of the Commission in support of the dos Passos/Bell proposal :—

May I comment upon the "Request for a ruling as to the specimen to be accepted as the lectotype of *Megathymus aryxna* Dyar, 1905 . . ." by Cyril dos Passos and Ernest L. Bell in the *Bulletin of Zoological Nomenclature*.

I am well acquainted with the details of this matter, having studied and photographed (for Mr. Stallings) the specimens at the British Museum, and having been more or less consulted about it a number of times.

I am heartily in accord with the opinions of dos Passos and Bell ; and endorse their request as stated in par. 18 of the above cited article.

**9. Support for the dos Passos/Bell proposal received from Ernst Mayr (Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.) :** On 28th January 1956 Professor Ernst Mayr (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) addressed the following letter to the Office of the Commission in support of the dos Passos/Bell proposal :—

I entirely agree with the proposal by dos Passos and Bell which is in line with the Copenhagen Decisions. The statements on page 295 [the Stallings/Turner proposal] are irrelevant and misleading.

**10. Objection to the dos Passos/Bell proposal received from Curtis W. Sabrosky (Entomology Research Branch, U.S. Depart-**

ment of Agriculture, Washington, U.S.A.): Under cover of a letter dated 1st March 1956, Dr. Curtis W. Sabrosky (*Entomology Research Branch, U.S. Department of Agriculture, Washington, U.S.A.*) addressed the following comment to the Office of the Commission in which he expressed his objections to the dos Passos/Bell proposal :—

#### On the Lectotype Selection for “*Megathymus aryxna*” Dyar

The application on the above subject by dos Passos and Bell, 1955, *Bull. zool. Nomencl.* **11** : 289—294) concerns a problem of general interest, beyond the obvious need to straighten out the confusion in the lepidopterous genus *Megathymus*. Every taxonomist meets with problems of restriction, lectotype selection, and the composition of the original type series. In the absence of predominant usage which it is desired to preserve, a ruling can and should be made on the basis of general principles that will guide taxonomists faced with similar problems.

#### The original type series of “*Megathymus aryxna*” Dyar

2. From the original description [see dos Passos and Bell for the description and for full references, here and elsewhere], I consider that there are two possible alternatives on what constitutes the original type material :

(a) The original type series consists of the ten specimens from Arizona which Dyar had *before him*, but not the *Biologia* specimens which he knew only from the figures (presumably, as far as one can tell from his words) ; or

(b) The original type series consists of the ten Arizona specimens plus the two *Biologia* figures which Dyar identified as being of the same species as his Arizona material.

3. I cannot conceive that the original type series of *aryxna* can possibly be limited to the two figured specimens of the *Biologia*. Decision 142 of the 1953 Copenhagen Congress, to which dos Passos and Bell refer, applies only to those cases in which “ a specific name, when first published, is *expressly stated to be a substitute* (e.g., by the use of such expressions as ‘*nom. nov.*’ or ‘*nom. mut.*’) for a previously published name . . . ” [italics mine, except for the abbreviations]. Dyar’s *aryxna*, however, was *not* expressly stated to be a substitute for *neumoegeni* ; on the contrary, it was clearly proposed as distinct from *neumoegeni*, both in description (“ it differs from *neumoegeni* in . . . ”) and in the key immediately preceding.

4. From a practical and commonsense viewpoint, we should have to consider Dyar quite unhuman to believe that he would have based the

new species entirely on two pictures, leaving the ten specimens actually before him without any standing ! It would have been far more logical, and indeed in accord with common practice, for him to have described *aryxna* from the ten specimens only, with the comment that it was the species figured in the *Biologia*, but with no intention or thought of including the figured specimens in his type series. As a matter of fact, the ten specimens from Arizona, in the collection of the U.S. National Museum, are all marked with the distinctive red label "Type No. 13033 USNM" [in this case "type" = syntype], and were so entered in the Museum's Type Catalogue on Feb. 28, 1910 by Dyar himself. Granted that labelling *per se* is not an effective nomenclatorial action, it still shows clearly what Dyar himself considered to be the type series upon which his species was based. He was followed in this by Barnes and McDunnough (1912).

5. In conclusion, the first alternative probably more accurately reflects the facts of the case, it seems to me to be the more logical choice, and it may even be the inevitable one because of the publication by Barnes and McDunnough (1912). The second is a possible alternative, if one considers that Dyar also had the two figures before him, even if not the actual specimens.

6. It is granted by all that Dyar himself published no restriction, and labelling by Dyar, without publication, is in itself not an effective restriction.

#### Restriction of "*aryxna*" under the First Alternative

7. Skinner's (1906, 1911) synonymy of *aryxna* with *neumoegeni* was a subjective zoological action which still did not pin down the actual type series of *aryxna*.

8. The first valid restriction is that of Barnes and McDunnough (1912), who unquestionably and clearly recognised that *aryxna* was based on a mixed series, and restricted the name to one of the component parts. At their request, Dyar "restricted the name *aryxna*" (by labelling) to that part of the type series which was not *neumoegeni*. Although Dyar himself did not publish the restriction, Barnes and McDunnough suggested the restrictive action and did publish it, and published a figure of *aryxna* Dyar *sensu stricto*, based on a "co-type" (=syntype) (plate 1, figs. 1, 2). They also clearly indicated the restriction by the citations under the various species in their paper, as follows : (a) p. 21, Druce's *Biologia* fig. 4 cited under *neumoegeni* ; (b) p. 22, *aryxna* Dyar, *partim*, cited under *neumoegeni* ; (c) p. 26, *aryxna* Dyar recognised as a valid species (*aryxna* Dyar, *partim*) ; and (d) p. 42, *drucei* Skinner (*Biologia* fig. 3) is said to be possibly the female of *smithi*, or else a distinct species.

We can scarcely hope for a clearer manner in which a restriction is accomplished in publication. See paragraphs 18 and 19 for a discussion of the nomenclature of restriction.

9. Barnes and McDunnough's use of the expression "unnamed form" (1912, p. 23: "Dr. Dyar restricted the name *aryxna* to the unnamed form") does not seem to me to be significant, contrary to the view expressed by dos Passos and Bell. Barnes and McDunnough in their studies of the group found "two forms, both included in the type series of *aryxna*". One was the true *neumoegeni*, but for the second there was no other name available (= "the unnamed form") and hence they suggested that Dyar restrict the name *aryxna* to this part of the series. That conservative and admirable taxonomic practice utilized the already published name *aryxna* and avoided the necessity of proposing a new name for that species which was not *neumoegeni*.

10. The lectotype selection by Skinner and Williams (1924) is invalid because the specimen from Mexico (basis of *Biologia* fig. 4) was not one of the ten specimens from Arizona, and hence was not part of the original type series.

11. Stallings and Turner (1954, plate 3) show two figures of "*M. aryxna* TYPE ♂, as restricted by Dyar". This might be considered the first valid lectotype designation for *aryxna*. On the other hand, because they refer to the "holotype" of two other species and were careful to designate a "lectotype" for *neumoegeni*, it might be argued that their "Type" for *aryxna* was used only in the sense of "a type", i.e. a syntype (cotype of Dyar). If the latter view is held, a lectotype is still not fixed for *aryxna*; if the former view, a lectotype is established. Incidentally, Stallings and Turner state (p. 78) that *aryxna* in Barnes and McDunnough's restricted sense includes only four of the original ten specimens.

#### Restriction of "*aryxna*" under the Second Alternative

12. Under the second alternative, in which the original type series is construed to include both the two figures and the ten specimens, the first reviser of *aryxna* is apparently Skinner (1906, *Ent. News* 17: 112): "*M. aryxna* Dyar is a synonym of *neumoegeni* Edw. The fig. 3, pl. 69, *Biol. Centr.-Amer.*, Het. is not *neumoegeni*, as stated by Dyar". This action eliminates fig. 3 and restricts *aryxna* to ten specimens and fig. 4.

13. Skinner (1911) continues his 1906 treatment by proposing for fig. 3 the new specific name *drucei*, and treating *aryxna* as a variety of *neumoegeni*.

14. The next revision of the species is that by Barnes and McDunnough (1912) (see paragraph 8 above for details). They clearly restricted *aryxna* to a species represented by certain specimens in the Arizona series, of which they figured a "co-type" (=syntype) as an example.

15. The lectotype selection by Skinner and Williams (1924) is not valid because the specimen from Mexico is not in the type series as restricted by Barnes and McDunnough (1912).

16. Again we come to Stallings and Turner (1954) (see paragraph 11 above for details).

#### The Lectotype of "*M. aryxna*"

17. For both alternatives, the conclusion is the same: The final restricted type series of *aryxna* consists of four specimens from the Arizona series originally studied by Dyar. Depending on interpretation (see paragraph 11), either a lectotype has been fixed by Stallings and Turner (1954), or no lectotype has yet been fixed definitely. If Stallings and Turner did not select a lectotype, rigidly construed, certainly the specimen labelled by Dyar as "Co-Type (Sensu Restr)" and subsequently figured by Barnes and McDunnough (1912) and again by Stallings and Turner (1954) is the logical choice.

#### Notes on the Nomenclature of Restriction

18. Recognition that Barnes and McDunnough (1912) did, by their published acceptance of Dyar's action, formally restrict *aryxna* is analogous to the principle accepted by the 1948 International Congress at Paris for the designation of type-species of genera (cf. 1950, *Bull. zool. Nomencl.* 4 : 181—182, Conclusion 72). That decision stated in effect that if an author accepted (in publication, of course) a certain species as the type species on the authority of a previous author or as a result of the supposed operation of some rule, his published acceptance was equivalent to the effective selection of a type species, even though he was in error as to what the previous author did or what the rule accomplished. In other words, what he accepted and published was effective as of that date, even if not before. By the same reasoning, Barnes and McDunnough's acceptance and publication of the restriction credited to Dyar effectively dates the restriction from their 1912 publication.

19. It seems to me to be essential to stability and universality that, in dealing with the literature prior to the days of holotypes and lectotypes, a clear restriction of a mixed species must be respected, and



that subsequent lectotype selection must be in accord with the previous restriction, and with legitimate successive restrictions, if more than one was necessary. This principle was recognized by the 1953 Copenhagen Congress in the Decision that dealt with neotypes [cf. *Copenhagen Decisions*, Decision 35, (5), (b)]. Although the principle is not stated in the Copenhagen Decision relating to lectotypes, I believe that it should be. It is fully as necessary and desirable as for neotype selection, and indeed has been, I believe, the prevailing practice among taxonomists.

### Taxonomic Practice

20. It would be interesting to know how zoologists in general would treat a problem like the *aryxna* case. I sampled the reaction of a number of colleagues with considerable taxonomic experience and interest in nomenclatural problems. In order to avoid any possible prejudice or preconceived opinion, I approached zoologists working in groups other than Lepidoptera, and I used the following hypothetical case which parallels the *aryxna* description but uses meaningless names :

Smith, 1896, *Fauna Beensis* : *A. flava* L. recorded.

Jones, 1905 : “ *A. notata*,” new species

“ This is the form figured in the *Fauna Beensis*, pl. 2, figs. 3 and 4. It differs from *flava* in having the black areas more extensive, the yellow of the pleura being reduced to rows of spots. I have ten specimens from Quebec from Dr. Jacques and M. Pierre ”.

Question : What constitutes the original type series ? In other words, what specimens are eligible for lectotype selection ? (a) Only the two on which figs. 3 and 4 are based ? (b) Only the ten specimens from Quebec ? (c) All twelve specimens ?

21. Most of those approached asked at once if author Jones actually had before him the specimens on which figs. 3 and 4 were based. In the end, however, the basis of the original description of “ *notata* ”, they answered as follows on the composition of the original type series :

All twelve specimens : H. S. Deignan (Aves), D. H. Johnson (Mammalia), C. F. W. Muesebeck (Hymenoptera), R. I. Sailer (Heteroptera), Alan Stone (Diptera), W. W. Wirth (Diptera), D. A. Young (Homoptera).

The “ ten specimens from Quebec ” : W. H. Anderson (Coleoptera), F. M. Bayer (Marine Invertebrata), R. E. Blackwelder (Coleoptera),

F. A. Chace, Jr. (Marine Invertebrata), Remington Kellogg (Mammalia), K. V. Krombein (Hymenoptera), P. W. Oman (Homoptera), H. A. Rehder (Mollusca), L. P. Schultz (Pisces). [Some indicated that they would also include the two figured specimens if it could be shown that author Jones actually saw the specimens.]

Conditional, two or ten : H. W. Setzer (Mammalia). [If Jones had the two figured specimens before him, they are the original type series ; if he did not, or if it cannot be determined definitely whether he did, then the ten specimens are the original type series.]

Two specimens (basis of figures) : None.

22. Of the zoologists sampled, emphasis is clearly on the specimens actually before the author describing the new species. All but one would always include the " ten specimens from Quebec ". The group divided about equally on whether or not to include the two figured specimens in addition to the ten, although several who voted for " all twelve " indicated reluctance to go beyond the ten that were unquestionably before the author. The consensus of those voting for " all twelve " was that the lectotype should ordinarily be selected from the ten clearly before the author.

### Conclusions

23. In consideration of the foregoing discussion, it is believed that the Commission should rule in the case of *Megathymus aryxna* Dyar that the lectotype is the male syntype from Arizona that is consistent with the valid restriction by Barnes and McDunnough (1912); that bears Dyar's label " *Megathymus aryxna* Dyar, Co-type (Sensu Restr) ", and that was figured as *aryxna* by Barnes and McDunnough (1912) and by Stallings and Turner (1954). The lectotype may be either by designation of the Commission, or if the Commission so recognizes, by the designation (as " TYPE ") of Stallings and Turner (1954). The specimen referred to is now in the collection of the U.S. National Museum.

**11. Objection to the dos Passos/Bell proposal received from J. Chester Bradley (Cornell University, Ithaca, U.S.A.) :** On 3rd March 1956 there was received in the Office of the Commission a communication from Professor J. Chester Bradley (Cornell University, Ithaca, U.S.A.) in which he commented on a number of cases recently published in the *Bulletin of Zoological*

*Nomenclature.* His remarks concerning the dos Passos/Bell proposal are as follows :—

.....

*Megathymus aryxna*, p. 291 : This was not proposed as a substitute name. Dos Passos and Bell say (par. 10) "a substitute name for specimens" but a name, if a substitute, is a substitute for a name, not for specimens. When a new name is proposed for specimens, a new species is established ; and that is what Dyar did.

Had Dyar placed the first sentence of his description last, it is doubtful that anyone would have questioned that the ten specimens were the entire type series, and that he considered his new species to be the form misidentified and figured in the *Biologia*. It would then have read "*M. aryxna*, new species. This differs from *neumoegeni* in having the fulvous markings considerably reduced, the outer band being broken into spots, I have ten specimens from Arizona from Dr. Barnes and Mr. Poling. It is the form figured in the *Biologia Centr.-Amer.*, Lep. Het., III, pl. 69, figs. 3 and 4". Certainly the syntypes are Dyar's series, not specimens that he had never seen and identified only from published illustrations.

In my view the lectotype remains to be selected from among Dyar's 10 syntypes, or may be ruled to have been selected by the publication of fig. 1 of Barnes and McDunnough.

Although this is not the sort of case that through its wide importance should ordinarily involve suspension of the rules, it might be best to do just that, confirming Skinner and Williams selection of *Biologia* fig. 4 as lectotype. This is the course suggested by Turner (*Bull.* 11 : 296) and would apparently satisfy all interested persons.

**12. Separation of the question of principle relating to the interpretation of the expression "syntype" as used in the "Règles" involved in the present case from the individual problem presented by the interpretation of the nominal species "*Megathymus aryxna*" Dyar, 1905 :** When at the close of the Prescribed Six-Month Period following the publication in the *Bulletin of Zoological Nomenclature* of the application in regard to the interpretation of the nominal species *Megathymus aryxna* Dyar, 1905, submitted by Mr. dos Passos and Mr. Bell and the counter-proposal in regard thereto submitted by Mr. Stallings and Mr. Turner, consideration was given by the Secretary to the question of the procedure to be adopted in placing this case

before the Commission for decision. The question which called for special consideration in this connection was that in the application and counter-proposal submitted respectively by the specialists named above the difference of view expressed as to the specimen which should properly be regarded as the lectotype of the foregoing nominal species had its origin in different views as to the specimens which could properly be regarded as having been syntypes of that species when the name *Megathymus aryxna* was first published by Dyar. Thus, a question of the interpretation of the *Règles* was involved in this case and a decision on the issue of principle so raised was a pre-requisite to a decision being taken by the Commission in regard to the interpretation of the nominal species referred to above. Under a decision taken in Paris in 1948 by the Thirteenth International Congress of Zoology the Commission was debarred thenceforward from giving decisions on questions of principle of direct interest to all zoologists in *Opinions* relating to individual names and therefore of interest primarily only to specialists in the group immediately concerned, and was instructed, when giving decisions affecting the interpretation of the *Règles* to render those decisions in the *Declarations* Series then expressly re-organised for that purpose. In these circumstances Mr. Hemming took the view that the question of the interpretation of the expression "syntype" involved in the present case ought to be separated from the individual problem presented by the name *Megathymus aryxna* Dyar, in order thereby to provide the International Commission with an opportunity to vote separately on these two issues. At this stage Mr. Hemming accordingly issued directions that the foregoing question of principle should be detached from the remainder of the problems involved in the present case. The new Registered Number Z.N.(S.) 1163 was thereupon allotted to the question of the interpretation of the expression "syntype" as used in the *Règles*, the original Registered Number Z.N.(S.) 889 being retained for the question of the interpretation of the nominal species *Megathymus aryxna* Dyar.

**13. Procedural arrangements made by the Secretary for obtaining decisions from the International Commission on the questions involved in the present case :** Since, as explained in paragraph 12

above, the adoption of a *Declaration* clarifying the meaning of the expression "syntype" as used in the *Règles* was an indispensable preliminary to the taking by the Commission of a decision on the individual problem presented by the name *Megathymus aryxna* Dyar. Mr. Hemming decided that the question of principle involved and that of the application of that principle in the foregoing individual case, being connected although distinct questions, should be submitted to the Commission for decision simultaneously but that the Voting Paper relating to the former of these questions should be the first on which the Commission should be invited to vote. Under this procedure the question of principle relating to the interpretation of the expression "syntype" was submitted to the Commission for decision with Voting Paper V.P.(56)37, while that involving the question of what specimens should be accepted as having been the syntypes of the nominal species *Megathymus aryxna* Dyar was submitted with Voting Paper V.P.(56)38 (paragraph 15 below). Thus when voting on the latter question, the Commission would already have voted on the prior question of the issue of principle involved.

**14. Decision taken by the International Commission on the question of principle relating to the interpretation of the expression "syntype" as used in the "Règles" :** The Prescribed Voting Period in respect of Voting Paper V.P.(56)37, the Voting Paper relating to the question of the definition of the expression "syntype" as used in the *Règles*, closed on 1st January 1957 and the result of the vote taken was declared on the following day. The decision so taken was embodied in a *Declaration* numbered *Declaration* 35 (now in the press<sup>1</sup>) on 12th June 1957. Under the terms of that *Declaration* the meaning to be attached to the expression "syntype" was defined and the ground was thus cleared for a decision by the Commission in regard to the interpretation of the nominal species *Megathymus aryxna* Dyar, 1905; the question with which the present *Opinion* is concerned.

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<sup>1</sup> *Declaration* 35 is being published simultaneously with the present *Opinion* as Part 4 of the present volume, i.e. as the Part immediately preceding that in which the present *Opinion* is appearing.

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

**15. Issue of Voting Paper V.P.(56)38 :** On 1st October 1956 a Voting Paper (V.P.(56)38) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the specimen to be accepted as the lectotype of *Megathymus aryxna* Dyar, 1905, as set out in Points (1) and (2) in paragraph 18 commencing on page 292 and concluding on page 293 of Volume 11 of the *Bulletin of Zoological Nomenclature*" [i.e. in the paragraph numbered as above in the application reproduced in the first paragraph of the present *Opinion*].

**16. Submission in October 1956 of supplementary proposals relating to certain aspects of the present case not dealt with in the applications previously submitted :** When returning his completed copy of Voting Paper V.P.(56)38, Commissioner Tadeusz Jaczewski (*Warsaw*) drew attention to the prominent part played by the generic name *Megathymus* Scudder in the application and counter-application submitted in the present case and expressed the opinion that, if the foregoing generic name had not as yet been placed on the *Official Lists of Generic Names in Zoology*, action in this sense should be taken as part of the settlement to be reached in the present case. This suggestion was taken into immediate consideration by the Secretary who on 16th October 1956 prepared the following paper containing proposals for remedying the omission to which Professor Jaczewski had drawn attention :—

**Proposed addition to the " Official List of Generic Names in Zoology " of the generic name " Megathymus " Scudder, 1872 (Class Insecta, Order Lepidoptera) (proposal supplementary to that submitted with Voting Paper V.P.(56)38)**

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

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

With Voting Paper V.P.(56)38 proposals were submitted for determining the interpretation of the nominal species *Megathymus aryxna* Dyar, 1905 (Class Insecta, Order Lepidoptera) by means of a Ruling to be given as to the specimen to be accepted as the lectotype

of that species. In returning his completed copy of the foregoing Voting Paper Commissioner Tadeusz Jaczewski has drawn attention to a minor omission in the proposals then submitted. It is the purpose of the present note to submit proposals for repairing the omission in question.

2. The species, the name of which forms the subject of the Voting Paper referred to above was described as belonging to, and is currently referred to, the genus *Megathymus* Scudder, 1872 (4th Ann. Rep. Peabody Acad. Sci. 1871 : 83), the type species of which by original designation is the nominal species *Eudamus ? yuccae* Boisduval & Leconte, [1837] (*Hist. gén. Icon. Lépid. Chen. Amér. sept.* 1 : pl. 70, 6 figs. [no text published]).\* The species *Megathymus yuccae*, the first of this group to be discovered, is extremely well known and exhibits characters of exceptional interest. At different times it has been considered by some authors to belong to an aberrant group of the HESPERIIDAE of the Sub-Order Rhopalocera and by others to belong to an aberrant group of the Sub-Order Heterocera. It is currently treated as belonging to the Super-Family HESPERIOIDEA of the first of the foregoing Sub-Orders. It is placed by all workers in a separate family, the MEGATHYIMIDAE. This nominal family was first established by Comstock (J.H.) & Comstock (A.B.), 1895 (*Man. Study Ins.* : 365).

3. It is recommended that, in conformity with the General Directive issued by the International Congress of Zoology for the purpose of ensuring that Rulings given in individual *Opinions* shall cover the whole field involved, the following action be now taken, that is, that the International Commission should :—

- (1) place the under-mentioned generic name on the *Official List of Generic Names in Zoology* : *Megathymus* Scudder, 1872 (gender : masculine) (type species, by original designation : *Eudamus ? yuccae* Boisduval & Leconte, [1837]) ;
- (2) place the under-mentioned specific name on the *Official List of Specific Names in Zoology* : *yuccae* Boisduval & Leconte,

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\* Both the collation and the dating of this fragmentary work by Boisduval & Leconte offer considerable difficulties. A collation is given in the *Catalogue of the Library of the British Museum (Natural History)* (1 : 189), while particulars of the Parts in which it was published and the dates attributable to those Parts was published by Charles Davies Sherborn in 1922 (*Index Anim.*, Pars secund. (1) : xxvi). As shown by the evidence collected by Sherborn, the plate (pl. 70) containing the figures of *Eudamus ? yuccae* was published in 1837. The date for this name is often incorrectly cited as " 1833 ", the date cited on the Title Page of Boisduval & Leconte's book.

[1837], as published in the combination *Eudamus ? yuccae* (specific name of type species of *Megathymus* Scudder, 1872) ;

- (3) place the under-mentioned family-group name on the *Official List of Family-Group Names in Zoology* : MEGATHYMIDAE Comstock (J.H.) & Comstock (A.B.), 1895 (type genus : *Megathymus* Scudder, 1872).

**17. Issue of Voting Paper V.P.(56)40 (Voting Paper Supplementary to Voting Paper V.P.(56)38) :** On 26th October 1956 the Supplementary Report reproduced in paragraph 16 above was issued to the Commission, together with a Voting Paper (V.P.(56)40) in which each Member of the Commission was invited to vote either for, or against " the proposal relating to the generic name *Megathymus* Scudder, 1872, and associated names, as set out in Points (1) to (3) in paragraph 3 of the paper bearing the Registered Number Z.N.(S.) 889 submitted by the Secretary concurrently with the present Voting Paper (proposal supplementary to the proposals submitted with Voting Paper V.P. (56)38) " [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 16 of the present *Opinion*].

**18. The Prescribed Voting Period for Voting Papers V.P.(56)38 and V.P.(56)40 :** Since both Voting Paper V.P.(56)38 and Voting Paper V.P.(56)40 were issued under the Three-Month Rule, the Prescribed Voting Period for the earlier of these Voting Papers (V.P.(56)38) was due to close on 1st January 1957, while that in respect of the later-issued Voting Paper (V.P.(56)40) was due to close only twenty-five days later, i.e. on 26th January 1957. In these circumstances the Secretary took the view that the most convenient course would be to extend the Prescribed Voting Period in respect of Voting Paper V.P.(56)38 to 26th January 1957, thereby securing that the close of the Prescribed Voting Period in respect of that Voting Paper should coincide with the close of the corresponding Period in respect of the Supplementary Voting Paper issued as Voting Paper V.P.(56)40. A formal direction in this sense was accordingly given by Mr. Hemming as Secretary in a Minute executed on 27th October 1956.



**19. Particulars of the Voting on Voting Paper V.P.(56)38 :**  
 At the close of the Prescribed Voting Period, as extended in the manner specified in paragraph 18 above, the state of the voting on Voting Paper V.P.(56)38 was as follows :—

(a) *Affirmative Votes had been given by the following twenty-one (21) Commissioners (arranged in the order in which Votes were received) :*

Hering ; Mayr ; Lemche ; do Amaral ; Jaczewski ;  
 Esaki ; Prantl ; Dymond ; Key<sup>2</sup> ; Vokes ; Bonnet ;  
 Hemming ; Riley ; Bodenheimer ; Bradley (J.C.) ;  
 Stoll ; Miller ; Cabrera ; Tortonese ; Kühnelt ;  
 Boschma ;

(b) *Negative Votes, three (3) :*

Holthuis ; Mertens ; Sylvester-Bradley ;

(c) *Prevented from Voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

(d) *Voting Papers not returned :*

None.

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<sup>2</sup> In returning an affirmative vote on Voting Paper V.P.(56)38, Commissioner K. H. L. Key indicated that this approval did not extend to the proposal set out in Point (1)(a) in the dos Passos/Bell application.

**20. Particulars of the Voting on Voting Paper V.P.(56)40 :**  
At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)40 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) :*

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

- (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.

**21. Declaration of the Result of the Votes taken on Voting Paper V.P.(56)38 and Voting Paper V.P.(56)40 respectively :** On 27th January 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Votes taken on

Voting Paper V.P.(56)38 and Voting Paper V.P.(56)40 respectively, signed a Certificate that the Votes cast in respect of Voting Paper V.P.(56)38 were as set out in paragraph 19 above and that those cast in respect of Voting Paper V.P.(56)40 were as set out in paragraph 20 above and declaring that the proposals submitted with each of the foregoing Voting Papers had been duly adopted in the Votes specified above and that the decision so taken was the decision of the International Commission in the matter aforesaid.

**22. Preparation of the Ruling given in the present "Opinion" :**  
On 14th June 1957 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)38, as supplemented by the proposal approved by the said Commission in its Vote on Voting Paper V.P.(56)40.

**23. Original References :** The following are the original references for the generic and specific names placed on the *Official Lists* for names of taxa belonging to the above categories by the Ruling given in the present *Opinion* :—

*aryxna*, *Megathymus*, Dyar, 1905, *J.N.Y. ent. Soc.* **13** : 141

*Megathymus* Scudder, 1872, *4th Ann. Rep. Peabody Acad. Sci.*  
1871 : 83

*neumoegeni*, *Megathymus*, Edwards (W.H.), 1882, *Papilio* **2** : 27

*yuccae*, *Eudamus* ?, Boisduval & Leconte, [1837], *Hist. gén. Icon. Lépid. Chen. Amér. sept.* **1** : pl. 70, 6 figs. [no text]

**24.** The following is the reference for the selection of a lectotype for a nominal species specified in the Ruling given in the present *Opinion* :—

For <i>Megathymus aryxna</i> Dyar, 1905	Skinner (H.) & Williams (R.C.), Jr., 1924, <i>Trans. amer. ent. Soc.</i> <b>50</b> : 205
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25. The following is the original reference for the family-group name placed on the *Official List* of names for taxa of that category by the Ruling given in the present *Opinion* :—

MEGATHYMIDAE Comstock (J.H.) & Comstock (A.B.), 1895, *Man. Study Ins.* : 365

26. 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 Eighty-Three (483) of the International Commission on Zoological Nomenclature.

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

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

Ref

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

*Edited by*

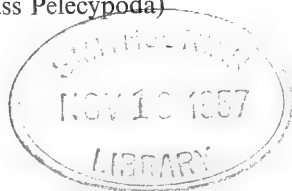
**FRANCIS HEMMING, C.M.G., C.B.E.**

**Secretary to the Commission**

**VOLUME 17. Part. 6. Pp. 73—86**

## **OPINION 484**

Addition to the *Official List of Generic Names in Zoology* and to the *Official List of Family-Group Names in Zoology* respectively of the generic name *Chama* Linnaeus, 1758, and the family-group name CHAMIDAE (correction of CAMACEA) Blainville, 1825 (Class Pelecypoda)



**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature

and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office

41, Queen's Gate, London, S.W.7

1957

**Price Nine Shillings and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 484

### A. The Officers of the Commission

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

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(29th October 1954)

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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 484

ADDITION TO THE "OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY" AND TO THE "OFFICIAL LIST OF FAMILY-GROUP NAMES IN ZOOLOGY" RESPECTIVELY OF THE GENERIC NAME "CHAMA" LINNAEUS, 1758, AND THE FAMILY-GROUP NAME "CHAMIDAE" (CORRECTION OF "CAMACEA") BLAINVILLE, 1825 (CLASS PELECYPODA)

**RULING** :—(1) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name Number 1224 :—

*Chama* Linnaeus, 1758 (gender : feminine) (type species, by selection by Children (J.G.) (1823) : *Chama lazarus* Linnaeus, 1758)

(2) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name Number 1429 :—

*lazarus* Linnaeus, 1758, as published in the combination *Chama lazarus* (specific name of type species of *Chama* Linnaeus, 1758)

(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) *Chama da Costa*, 1778 (a junior homonym of *Chama* Linnaeus, 1758) (Name No. 1047) ;

(b) *Chama* Oken, 1815 (invalid (i) because published in a work rejected for nomenclatorial purposes by the Ruling given in *Opinion* 417 and (ii) because a junior homonym of *Chama* Linnaeus, 1758) (Name No. 1048) ;

- (c) *Chama* Mörch (O.A.L.), 1853 (a junior homonym of *Chama* Linnaeus, 1758) (Name No. 1049).

(4) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Number 193 :—

CHAMIDAE (correction of CAMACEA) Blainville (H.M.D.), 1825 (type genus : *Chama* Linnaeus, 1758) (first published in correct form as CHAMIDAE by Broderip (W.J.) (1839))

(5) 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) CAMACEA Blainville (H.M.D.), 1825 (an Invalid Original Spelling for CHAMIDAE Blainville) (Name No. 224) ;
- (b) CHAMACEA Menke (C.T.), 1830 (an Invalid Original Spelling for CHAMIDAE) (Name No. 225) ;
- (c) CHAMACIDAE d'Orbigny, 1839 (an Invalid Original Spelling for CHAMIDAE) (Name No. 226) ;
- (d) CHAMADAE Fleming (J.), 1828 (an Invalid Original Spelling for CHAMIDAE Fleming, a nominal family-group taxon established by Fleming without knowledge of the prior establishment of the same nominal taxon by Blainville in 1825) (Name No. 227).

## I. THE STATEMENT OF THE CASE

On 1st November 1954 Dr. L. R. Cox (*British Museum (Natural History), London*) submitted to the International Commission on Zoological Nomenclature the following application, the preparation of which had been prompted by a recent discovery by



Dr. Cox of a much earlier nominal family-group taxon based upon the generic name *Chama* Linnaeus, 1758 (Class Pelecypoda), than any previously known :—

**Proposed addition to the “ Official List of Generic Names in Zoology ”  
of the generic name “ Chama ” Linnaeus, 1758 (Class Pelecypoda)**

By L. R. COX, Sc.D., F.R.S.

(*British Museum (Natural History), London*)

When recently, at the request of the Secretary to the International Commission, I investigated the question of the place in which the genus *Ostrea* Linnaeus, 1758, was first made the type genus of a family-group, I found this to have been done by Rafinesque in 1815. In the course of this investigation I examined the *Manuel de Malacologie* of H. M. D. Blainville published in 1825. In this work I found (: 541) what is, I believe, the first family-group name to have been published for the genus *Chama* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 691). I think it desirable that the name of this well-known family should be stabilised by being placed on the *Official List of Family-Group Names in Zoology*, and it is the purpose of the present application to ask the International Commission to take action in this sense.

2. In the work referred to above Blainville established a number of supra-generic groups which he termed “ Familles ” and for each of which he cited two names, the first, a vernacular (French) name, the second, a Latin name. Of the nominal groups so established the majority were based upon words which were not the names of contained genera and which therefore it is not necessary to take into account. Among the exceptions were, as already stated, the families established with *Ostrea* Linnaeus and *Chama* Linnaeus as type genera respectively. In the present case the family-name bestowed was in the incorrect form “ CAMACEA ”. Fleming (J.), 1828 (*Hist. Brit. Anim.* : 408, 409) treated *Chama* Linnaeus as the type genus of a family to which he applied the name CHAMADAE. The first author to publish this family name in the correct form CHAMIDAE was Gray (J.E.), 1840 (*Synopsis Contents Brit. Mus.* (ed. 42) : 137). The use of a correctly formed termination at the time of the first publication of a family-group name is not obligatory under the rules laid down by the Copenhagen Congress of 1953, and accordingly the present family name—with the corrected spelling and with the prescribed termination—becomes CHAMIDAE (correction of CAMACEA) Blainville, 1825.

3. Fleming (J.), 1818 (*Suppl. to 4th, 5th and 6th eds. of Ency. Brit.* 3 : 305) said that *Chama* Linnaeus "is represented by the *Chama Lazarus* of Linnaeus" but he did not use the word "type". Children (J.G.), 1823 (*Quart. J. Sci. Lit. Arts* 15 : 28) definitely cited *Chama lazarus* Linnaeus as the type species of *Chama* Linnaeus. Gray (J.E.) in 1847 also cited the above species as the type species of this genus. Children's type selection was accepted as the earliest by Kennard, Salisbury & Woodward in their paper on Children's type-selections (1931, *Smithson. misc. Coll.* 82 (No. 17) : 13). This species has been very generally accepted by later authors as the type species of this genus.

4. It should be noted, however, that on the basis of a paper by Stewart (R.B.), 1930 (*Spec. Publ.* 3 *Acad. nat. Sci. Philad.* : 33) Nicol (D.), 1952 ("Nomenclatural Review of genera and subgenera of Chamidae", *J. Wash. Acad. Sci.* 42 : 154) has claimed that the species *Chama gryphoides* Linnaeus, 1758 (*Syst. Nat.* (ed. 10) 1 : 692) was selected as the type species of *Chama* Linnaeus by Schumacher in 1817 (*Essai d'un nouveau Système des Habitations des Vers testacés* : 123). I have examined Schumacher's work carefully, for his so-called type selections have been rendered suspect by the decision by the Copenhagen Congress that the selection (as was at times made by Schumacher) of a structure exhibited by a particular specimen as the "type" of a genus does not constitute a valid selection of that species as the type species of that genus for the purposes of Rule (g) in Article 30 (1953, *Copenhagen Decisions zool. Nomencl.* : 71, Decision 134). Reference to Schumacher's work shows that in the present case *Chama gryphoides* Linnaeus was the sole example cited by Schumacher for the genus *Chama* Linnaeus but that the word "type" was not used. Schumacher's action cannot therefore be accepted as a type selection for this genus\* and accordingly Children's (1823) selection of *Chama lazarus* Linnaeus is the valid selection. Quite apart from the strictly nomenclatorial position set out above, the species *Chama lazarus* Linnaeus is more satisfactory as a type species than *Chama gryphoides* Linnaeus would have been. For the identity of the species named *gryphoides* by Linnaeus is not firmly established, while the authentic type specimen of *lazarus* Linnaeus is preserved in the Linnean collection. No systematist has attempted to separate *C. lazarus* generically from *C. gryphoides* and accordingly the concept represented by the nominal genus *Chama* does not depend on which of the two species is the type species.

---

\* It has been claimed (Stewart, *loc. cit.*) that, in consequence of a reference on p. 20 of the introduction to Schumacher's work to "les espèces, que j'ai donner [sic] pour type tant des genres que pour leur subdivision", Schumacher's citation of a species as the sole example under any genus is equivalent to its designation as type species of that genus. This point needs clarification by an *Opinion* of the Commission. The present application is that *Chama lazarus* should be accepted as type species of *Chama* irrespective of any future decision on this point.

5. There are three junior homonyms of *Chama* Linnaeus, 1758, which should be placed on the *Official Index* when that name is placed on the *Official List*. These names are : (1) *Chama* da Costa, 1778, *Brit. Conch.* : 230 ; (2) *Chama* Oken, 1815, *Lehrbuch Naturgesch.* 3 (Zool.) : 253 ; (3) *Chama* Mörch (O.A.L.), 1853, *Catalogus Conchyliorum quae reliquit D. Alphonso d'Aguirra & Gedeo, Comes de Yoldi* 2 : 33.

6. I accordingly ask the International Commission :—

- (1) to place the under-mentioned generic name on the *Official List of Generic Names in Zoology* : *Chama* Linnaeus, 1758 (gender : feminine) (type species, by selection by Children (1823) : *Chama lazarus* Linnaeus, 1758) ;
- (2) to place the under-mentioned specific name on the *Official List of Specific Names in Zoology* : *lazarus* Linnaeus, 1758, as published in the combination *Chama lazarus* (specific name of type species of *Chama* Linnaeus, 1758) ;
- (3) to place the family-group name CHAMIDAE (correction of CAMACEA) Blainville, 1825 (type genus : *Chama* Linnaeus, 1758) on the *Official List of Family-Group Names in Zoology* ;
- (4) to place on the *Official Index of Rejected and Invalid Generic Names in Zoology* the under-mentioned names, each of which is a junior homonym of *Chama* Linnaeus, 1758 :—
  - (a) *Chama* da Costa, 1778 ;
  - (b) *Chama* Oken, 1815 ;
  - (c) *Chama* Mörch (O.A.L.), 1853 ;
- (5) to place on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* the under-mentioned names, each of which is an Invalid Original Spelling for CHAMIDAE :—
  - (a) CAMACEA Blainville, 1825 ;
  - (b) CHAMADAE Fleming, 1828,

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt of Dr. Cox's application the question of the family-group name based upon the generic name *Chama* Linnaeus, 1758, was allotted the Registered Number Z.N.(S.) 870.

**3. Publication of the present application :** The present application was sent to the printer on 23rd August 1955 and was published on 9th May 1956 in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Cox, 1956, *Bull. zool. Nomencl.* **11** : 327—329).

**4. 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

**5. Issue of Voting Paper V.P.(56)41 :** On 30th November 1956 a Voting Paper (V.P.(56)41) was issued in which the Members of the Commission were invited to vote either for, or against, " the proposals relating to the generic name *Chama* Linnaeus, 1758, as set out in Points (1) to (5) in paragraph 6 on page 329 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 *Opinion*].

**6. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd March 1957.

**7. Particulars of the Voting on Voting Paper V.P.(56)41 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)41 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) :*

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

(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, one (1) :*

Mayr.

**8. Declaration of Result of Vote :** On 3rd March 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)41, signed a Certificate that the Votes cast were as set out in paragraph 7 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.

**9. Description applicable to the family-group name "Chamadae" Fleming, 1828:** When in June 1957, the stage was reached for the preparation of the Ruling to be given in the *Opinion* embodying the decision taken by the Commission by its vote on Voting Paper V.P.(56)41, consideration was given by Mr. Hemming to the question of the description to be applied to the family-group names CAMACEA Blainville, 1825, and CHAMADAE Fleming, 1828, when those names were entered on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*. Both these names, it will be recalled (paragraph 6(5) of the paper reproduced in the first paragraph of the present *Opinion*) were described in the application submitted in this case as being "Invalid Original Spellings for CHAMIDAE". It appeared to Mr. Hemming that, while this description was correct as far as it went, it was incomplete and accordingly, in part, misleading. For, although the names spelled in the foregoing manner by Blainville (1825) and Fleming (1828) respectively applied to the same taxon, i.e. to the family-group taxon having the genus *Chama* Linnaeus, 1758, as its type genus, the name CHAMADAE was published by Fleming independently without knowledge of the earlier publication by Blainville of a name (in the incorrect form CAMACEA) for the same taxon. Thus, while CAMACEA Blainville, 1825, was correctly described in the application as an Invalid Original Spelling for CHAMIDAE as published by that author on that date, the name CHAMADAE Fleming, also an Invalid Spelling for CHAMIDAE, was not an Invalid Original Spelling of CHAMIDAE (correction of CAMACEA) Blainville, 1825 (of the existence of which Fleming was unaware) but of an independently established name CHAMIDAE (correction of CHAMADAE) established by Fleming himself in 1828. In these circumstances Mr. Hemming on 17th June 1957 executed a Minute directing that words making clear the foregoing distinction be inserted in the Ruling to be given in the *Opinion* to be rendered in the present case.

**10. Addition of two family-group names to the "Official Index of Rejected and Invalid Family-Group Names in Zoology" and correction of a bibliographical reference for such a name given in the original application:** Arising out of correspondence between the Secretary and Dr. L. R. Cox as to the correct description to be given to the family-group name CHAMADAE Fleming, 1828, a

question which, as explained in paragraph 9 above, formed the subject of a Minute executed by the Secretary on 17th June 1957, Dr. Cox furnished particulars relating to two invalid forms of the family-group name based upon the generic name *Chama* Linnaeus which had escaped attention at the time of the original submission of the application in this case. At the same time Dr. Cox gave particulars of an earlier reference for the publication of the foregoing family-group name in correct form than had previously been detected in the literature. Upon receiving the above communication from Dr. Cox, the Secretary on 23rd June 1957 executed the following Minute giving directions as to the action to be taken in the light of the information so received :—

**Supplementary Note on certain Family-group Names based  
on the generic name "Chama" Linnaeus, 1758 (Class  
Pelecypoda)**

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

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

Since the close of the Prescribed Voting Period on Voting Paper V.P.(56)41 relative to the generic name *Chama* Linnaeus, 1758 (Class Pelecypoda), I have received certain further information from Dr. L. R. Cox (the applicant in the present case) regarding the family-group-name problems involved

2. The first point made by Dr. Cox is that the first author to publish the family-group name CHAMIDAE with the correct "-IDAE" termination was Broderip (W.J.), 1839 (*Penny Cyclopaedia* 14 : 319) and not, as was previously believed, Gray (J.E.), 1840 (*Syn. Contents Brit. Mus.* (ed. 42) : 137).

3. Second, Dr. Cox has brought to notice two further invalid forms of the family-group name CHAMIDAE, namely :—

(a) CHAMACEA Menke (C.T.), 1830, *Syn. meth. Moll.* : 109

(b) CHAMACIDAE d'Orbigny (A.), 1839, *Hist. nat. Iles Canaries* 2 : 104.

4. In order to meet the situation now disclosed, I hereby direct that the following action be taken in the preparation of the Ruling to be given in the *Opinion* embodying the decision taken by the Commission in its vote on the Voting Paper specified in paragraph 1 of the present Minute :—

- (1) The reference specified in paragraph 2 above to Broderip (1839) as the author by whom the family-group name CHAMIDAE was first published in correct form to be substituted for the reference to Gray (1840) given in the original application ;
- (2) the two objectively invalid family-group names specified in paragraph 3 above to be placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*.

**11. Preparation of the Ruling given in the present “ Opinion ” :** On 24th June 1957 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)41, subject to (a) the clarification specified in the Minute executed by the Secretary on 17th June 1957, as specified in paragraph 9 of the present *Opinion* and (b) to the supplemental directions specified in the Minute executed by that Officer on 23rd June 1957 (the text of which has been reproduced in paragraph 10 of the present *Opinion*).

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

*Chama* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 691

*Chama* da Costa, 1778, *Brit. Conch.* : 230

*Chama* Oken, 1815, *Lehrbuch Naturgesch.* **3** (Zool.) : 253

*Chama* Mörch (O.A.L.), 1853, *Cat. Conchyl. A. d'A. & G. Comes de Yoldi* **2** : 33

*Iazarus, Chama*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 691



**13.** The following are the Original References for the family-group names placed on the *Official List* and *Official Index* for names of taxa belonging to the family-group by the Ruling given in the present *Opinion* :—

CAMACEA Blainville (H.M.D.), 1825 (an Invalid Original Spelling for CHAMIDAE)

CHAMACEA Menke (C.T.), 1830 *Syn. meth. Moll.* : 109

CHAMACIDAE d'Orbigny (A.), 1839, *Hist. nat. Iles Canaries* **2** : 104

CHAMIDAE (correction of CAMACEA) Blainville (H.M.D.), 1825, *Man. Malac.* : 541

CHAMADAE Fleming (J.), 1828, *Hist. Brit. Anim.* : 408, 409

**14.** The following is the reference to the first occasion on which the family-group name based upon the generic name *Chama* Linnaeus, 1758, was published in due form with the correct termination :—

CHAMIDAE Broderip (W.J.), 1839, *Penny Cyclopaedia* **14** : 319

**15.** The following is the reference for the selection of a type species for the genus *Chama* Linnaeus, 1758, specified in the Ruling given in the present *Opinion* :—

Children (J.G.), 1823, *Quart. J. Sci. Lit. Arts* **15** : 28

**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 Eighty-Four (484)* of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Fourth day of June, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

Key  
7

# 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 17. Part 7. Pp. 87—104

## OPINION 485

Determination of the relative priority to be assigned to the names *Cheirodon axelrodi* Schultz (L.P.) and *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.) (Class Pisces), both being names published in February 1956

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Nomenclature by the International Trust at its Publications Office  
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1957

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 485

### 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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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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 485

**DETERMINATION OF THE RELATIVE PRIORITY TO  
BE ASSIGNED TO THE NAMES "CHEIRODON  
AXELRODI" SCHULTZ (L.P.) AND  
"HYPHESSOBRYCON CARDINALIS" MYERS  
(G.S.) & WEITZMAN (S.H.) (CLASS PISCES),  
BOTH BEING NAMES PUBLISHED IN  
FEBRUARY 1956**

**RULING :—**(1) It is hereby ruled that on the basis of the evidence submitted the Parts of the serial publications containing the names of the under-mentioned nominal species belonging to the Class Pisces were published on the dates severally specified below :—

- (a) Part 4 of Volume 4 of the serial publication *Tropical Fish Hobbyist*, being a Part dated "April 1956" on the cover and "February 20, 1956" on the first page of the text (page [3]) ;

It is hereby ruled that on the evidence submitted the general mailing of the above Part of the serial publication *Tropical Fish Hobbyist*, being the Part containing the description of the new nominal species *Cheirodon axelrodi* Schultz (L.P.), commenced on 20th February 1956, on which date copies to a number estimated by the Editor at about 3,000 were distributed to subscribers

- (b) Part 1 of Volume 7 of the serial publication *Stanford Ichthyological Bulletin*, being a Part dated "February 21, 1956" :

It is hereby ruled that on the evidence submitted the general mailing of the above Part of the serial publication *Stanford Ichthyological Bulletin*, being the Part containing the description of the new nominal species *HypheSSobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.), began on 21st February 1956, when 600 copies were mailed to subscribers.

(2) In the light of (1) above, it is hereby ruled that the name *Cheirodon axelrodi* Schultz (L.P.) is to be treated as having been published on 20th February 1956 and the name *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.) on 21st February 1956.

(3) It is hereby ruled that in the light of (2) above the specific name *axelrodi* Schultz (L.P.), 20th February 1956, as published in the combination *Cheirodon axelrodi*, is to be accorded priority over the specific name *cardinalis* Myers (G.S.) & Weitzman (S.H.), 21st February 1956, as published in the combination *Hyphessobrycon cardinalis*.

(4) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology*, with the endorsement specified below and with the Name Number 1430 :—

*axelrodi* Schultz (L.P.), 20th February 1956, as published in the combination *Cheirodon axelrodi* (a name ruled as possessing, on the basis of the evidence submitted, priority over the specific name *cardinalis* Myers (G.S.) & Weitzman (S.H.), 21st February 1956, as published in the combination *Hyphessobrycon cardinalis*).

## I. THE STATEMENT OF THE CASE

In the period March-April 1956 enquiries were received by the Office of the Commission from various sources on the question of the relative priority to be assigned to the binomina *Cheirodon axelrodi* Schultz (L.P.) and *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.), both being names published in February 1956 and both, in the view of the correspondents concerned, being applicable to the same species. These enquiries culminated on 14th May 1956 when Mr. L. W. Ashdown of the Editorial Department of the serial publication *Water Life*,

London, submitted the following formal request for the determination by the International Commission on Zoological Nomenclature of the relative priority to be assigned to the foregoing names :—

**Request for a Ruling as to the relative priority to be accorded to the names “*Cheirodon axelrodi*” Schultz, 1956, and “*Hyphessobrycon cardinalis*” Myers and Weitzman, 1956 (Class Pisces)**

By L. W. ASHDOWN

(*Editorial Department, “Water Life”, London*)

I shall be grateful if the International Commission will give a ruling on the question of which of two recently published names should be applied to a newly described Characin. I should explain that what is apparently the same species has been described by Dr. L. P. Schultz as *Cheirodon axelrodi* in the April 1956 number of the *Tropical Fish Hobbyist* (pages 41/43) and, we understand, by George S. Myers and S. H. Weitzman as *Hyphessobrycon cardinalis* in No. 1 of Vol. 7 of the *Stanford Ichthyological Bulletin*. The same fish had been described in the February 1956 issue of *The Aquarium* by W. T. Innes, where it was stated that the fish had still to be classified, and it was given the popular name of “Cardinal Tetra” pending the publication of a scientific name for it.

The issue of the *Tropical Fish Hobbyist* for April 1956 is dated on the first page (page 3) “February 20, 1956”, while the issue of the *Stanford Ichthyological Bulletin* referred to above is, we believe, dated “February 21, 1956”. It is impossible without a ruling from the Commission to determine which of the two names previously mentioned should take priority over the other since the Commission alone is in a position to obtain the relevant information.

This fish is likely to become widely used by aquarists, and it is important therefore that the scientific name to be used for it should be determined without delay. I accordingly ask the International Commission to look into this matter, and to give a ruling on it as soon as possible.

**2. Particulars obtained from the parties concerned as to the dates of publication of the names “*Cheirodon axelrodi*” Schultz and “*Hyphessobrycon cardinalis*” Myers & Weitzman respectively :** Upon the receipt of the communication from Mr.

Ashdown reproduced in the preceding paragraph, Mr. Hemming as Secretary, took the view that no useful purpose would be served by the submission of that communication to the Commission until evidence on the question of the dates of publication of the relevant Parts of the serial publications in which the names *Cheirodon axelrodi* Schultz (L.P.) and *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.) had respectively been published had been obtained from the parties who alone possessed first-hand evidence on this subject. Accordingly, on 16th May 1956 Mr. Hemming addressed letters of enquiry (i) as regards the name *Cheirodon axelrodi* Schultz, (a) to Dr. L. P. Schultz, the author of the above name and (b) to Mr. Herbert H. Axelrod, the Editor of the serial publication *Tropical Fish Hobbyist*, in which the above name had been published, and (ii) as regards the name *Hyphessobrycon cardinalis* Myers & Weitzman, (a) to Professor George S. Myers, the senior of the joint authors of the above name, and (b) to the Editor of the serial publication *Stanford Ichthyological Bulletin*, in which the above name had been published. Upon receiving the information so asked for, Mr. Hemming on 7th June 1956 prepared the following Report for the consideration of the International Commission to which he annexed copies of the replies which he had received to the enquiries referred to above :—

**Procedure adopted for dealing with Mr. L. W. Ashdown's request for a ruling as to the relative priority to be accorded to the names "Cheirodon axelrodi" Schultz, 1956, and "Hyphessobrycon cardinalis" Myers and Weitzman, 1956 (Class Pisces)**

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

(Secretary to the International Commission on Zoological Nomenclature)

Attention is drawn to the request submitted by Mr. L. W. Ashdown (Editorial Department, "Water Life") for a Ruling as to the relative priority to be accorded to two names for the same species of fish which appear to have been published almost simultaneously in the early part of 1956. The names concerned are (a) *Cheirodon axelrodi* Schultz, published in Part 4 of volume 4 of the serial publication *Tropical Fish Hobbyist*, a Part which on the wrapper bears the date "April 1956" and on the first page of the text (: [3]) the date "February 20, 1956" and (b) *Hyphessobrycon cardinalis* Myers and Weitzman, published in Part 1 of volume 7 of the serial publication



*Stanford Ichthyological Bulletin* (a serial publication published by the Natural History Museum of Stanford University) a Part bearing the date "February 21, 1956".

2. The answer to be returned to the question submitted in this case will depend on the evidence furnished by the parties concerned as to the dates on which the Parts of these serial publications referred to above were respectively "published", the term "published" being interpreted in the manner prescribed by the International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 223—225).

3. As both the names concerned are new and neither has as yet established itself in the literature, special priority for publication in the *Bulletin of Zoological Nomenclature* has been accorded to Mr. Ashdown's application in order that the International Commission may be in a position to give a Ruling in this matter at the earliest possible date.

4. In order to assist the International Commission in arriving at a decision on this question a request for full information as to the date of publication, as defined by the International Congress of Zoology, of the respective Parts of the serial publications concerned was addressed as a matter of urgency to the Editor of the *Tropical Fish Hobbyist* and to the Editor of the *Stanford Ichthyological Bulletin*. The replies received are given in Annexes 1 and 2 to the present note.

#### ANNEXE 1

#### Reports on the date of publication of the name "Cheirodon Axelrodi" Schultz, 1956

(a) Letter dated 23rd May 1956 from Leonard P. Schultz, Smithsonian Institution, U.S. National Museum, Washington, D.C., U.S.A.

Thanks for your letter of May 16, 1956 (Z.N.(S.) 1082) concerning relative priority of *Cheirodon axelrodi* Schultz and *Hypphessobrycon cardinalis* Myers and Weitzman.

Mr. Axelrod sent to me on March 6, 1956 the U.S. Post Office receipt for the mailing of the March-April issue of *Tropical Fish Hobbyist* and it is in my files, a photographic copy of which I could furnish if needed by the Commission. It contains the following information which I quote :—

" Jersey City, N.J.  
Tropical Fish Hobbyist  
2/20—24/56 and 3/2—3—5/56  
Mar.-April-1956  
Total pounds mailed 1514  
Computed by T. Falconer "

The first date of mailing was on February 20, 1956 as shown by the above receipt. This is verified by the postmark on the folder in which my copy of the April issue of T.F.H. arrived. I quote : " Jersey City, N.J., February 20, 1956, P.B. Meter 333294, U.S. Postage 05 ".

Mr. Axelrod mailed to me on February 18th a printed tear sheet from the T.F.H. magazine of the description of *Cheirodon axelrodi* Schultz, which I received at 9.00 a.m. on February 20 1956.

I received a letter from Dr. George S. Myers which bore the date of February 16, 1956, as originally typed, but which had been re-dated as February 21, 1956 by Professor Myers in his hand-writing. He stated in long hand which I quote : " Dear Leonard : Copies of our latest Stan. Ichth. Bulletin just came in so I am enclosing your copy with this. There is a new aquarium tetra in it, GSM ". " P.S. I didn't get back to the office for several days to sign this. Thus change in date ". The rest of the letter was typed but about other matters. Enclosed in the letter was the printed description of *Hyphessobrycon cardinalis* Myers and Weitzman, also dated February 21, 1956. The envelope in which the letter and Stanf. Ichth. Bull. Vol. 7, no. 1 were enclosed were postmarked " Stanford, Calif., Feb. 21, 1956, 12.30 p.m.", which I have in my files. It was received February 23, 1956.

**(b) Letter dated 23rd May 1956 from Herbert R. Axelrod, Editor Tropical Fish Hobbyist Magazine**

This will acknowledge receipt of your letter dated May 16 relative to the priority of the names *Cheirodon axelrodi* Schultz and *Hyphessobrycon cardinalis* Myers & Weitzman.

I shall answer your queries according to (a), (b) and (c) as outlined in your letter.<sup>1</sup>

(a) The magazine *Tropical Fish Hobbyist* which bears the cover date April 1956 was printed on February 17th and 18th. Some copies were distributed on that date to pet shops in our neighbourhood. General mailing started on February 20th and continued for a week or so. This information was verified by Myers, Innes and Dr. Schultz. I am enclosing the story which appeared in the next issue of our magazine explaining this procedure.

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<sup>1</sup> The queries here referred to by Mr. Axelrod are those contained in my letter to him of 16th May 1956 which were as follows :—

- (a) The date on which were available the first copy or copies of the issue of the *Tropical Fish Hobbyist* which bears the date " April, 1956 " on the cover and the date " February 20, 1956 " on page 3 ;
- (b) The date on which the first copies of the above number were distributed to subscribers and the number of copies so distributed ;
- (c) If not all subscribers' copies were distributed on the date referred to in (b) above, the date on which the remaining copies were distributed and the number of such copies. (intld. F.H. 6th June 1956.)

(b) First copies went to the post office on February 20th. There were about 3,000 copies mailed on this date.

(c) 6,718 copies were distributed between February 20th and May 4th.

Verification of this information is available from the Postmaster, Jersey City 2, N.J. He has the records of mailing this issue.

**Enclosure to letter dated 23rd May, 1956 from Herbert R. Axelrod**

*Extract from pp. 16 and 17 of the issue of the serial publication "Tropical Fish Hobbyist" for May—June, 1956*

In the last issue of T.F.H., Dr. Schultz kindly named this beautiful fish *Cheirodon axelrodi* in my honor. I am, naturally, quite proud of this fact, especially since it is one of the most beautiful fishes I've ever seen. The story behind the scenes is a very interesting one and as a matter of record I'll tell you about it.

On February 10th or 11th the beautiful Scarlet Characins were brought to my attention by several of my friends. Sol Kessler, a fish dealer in nearby New Jersey town, was kind enough to give Bill Vorderwinkler a few specimens. I had Timmerman take a few color pictures of them, then sent them down to Dr. Schultz for identification. While this was going on, I held up printing T.F.H. until I heard from Schultz. I called him in Washington nearly every day until finally he said that he thought it was a new species and was naming it after me. He said it would take another day or two to write it up but he would send the manuscript up special delivery. On the morning of February 16th I received the manuscript . . . three hours later I had the pages set in type and the proofs were in the mail to Dr. Schultz. We received Dr. Schultz's corrections back the next day but by that time we were printing the magazine already, so we made the corrections as best we could on the plate. We mailed the first copies of the magazine on February 20th, as the records of the post office will verify (Innes and Myers both checked them!).

Now Dr. Schultz is a very finicky guy! When I sent him the fish he wanted an exact location for the "type locality". He doesn't believe in general areas . . . he wants THE place. I knew that Fred Cochu and his father-in-law, Herr Schnelle of Paramount Aquarium, were probably the only two white men to know the exact locale and

I further know that they wouldn't be fools enough to tell me or anyone else ! This fish was worth thousands of dollars and when others found out where they were getting the Neons from, the market was killed and the Neons were and still are selling for a price lower than that of White Clouds ! They didn't want the same thing to happen to this fish.

I asked a very good friend of mine, Mr. Mervin Roberts, to ask Schnelle where the fish comes from. Schnelle and Roberts are close associates. Roberts could not get a specific locale from Schnelle. Then I remembered a man who used to collect fish in that region.

I told him the story . . . he told me where the fish come from (north of Porto Velho on the Rio Madiera). He knew the exact area . . . even told me how to get there by plane. Take a four engine plane to Manaus, then a small seaplane to Porto Velho. Later I learned that Schnelle had reported to Myers that the fish came from near Manaus. Myers should have known better than to believe that for two reasons :—

1. Paramount Aquarium make their living selling tropical fish. They don't want every importer to have the fish that they now have exclusively.

2. The waters near Manaus have been combed for many years for lots of fishes. Why hadn't this beautiful species turned up before ?

Myers wrote to Kessler and others trying to get information that he should have written to me or Schultz about . . . Innes did the same thing ! WHY ?

Anyway, the fish I sent to Schultz were all females. The balance I sent to Tutwiler in Florida and to Bill Vordewinkler to see if they could spawn them. I am trying to spawn them myself . . . nothing yet.

The fish are very hardy and healthy. They are not easily killed by diseases, nor do they succumb to the ich very readily (other fishes in the same aquarium got the ich, but not these beauties !) Schultz, who hasn't seen a male yet, suggests that males might have the characin hook on their anal fins. I looked and couldn't find any on the specimens I have . . . maybe they are all females ? In the interests of ichthyology and tropical fishkeeping, I am offering, through T.F.H., a reward of \$50.00 for the exclusive rights to the publication of the first detailed spawning report of *Cheirodon axelrodi*. The report must be verified by three people or a month old baby fish must be sent along as proof. If photographs of the spawning sequence can be taken, we'll pay an additional \$10 for each reproducible photograph.

## ANNEXE 2

**Report on the date of publication of the name "Hyphessobrycon cardinalis" Myers and Weitzman, 1956**

**Letter dated 23rd May, 1956 from Margaret H. Storey, Associate Editor, Stanford Ichthyological Bulletin**

In reply to your letter of 16th May, 1956<sup>2</sup>, may I state that Prof. G. S. Myers is Editor of the *Stanford Ichthyological Bulletin*. However, as Associate Editor, my duties include direct dealing with the printers (Stanford University Press) and with the posting of each number of this serial. It is my responsibility that the greater part of each issue be in the mails on or before the publication date, which invariably appears just below the masthead of each number.

I followed my usual procedure when I addressed and mailed volume 7 no. 1 of the *Stanford Ichthyological Bulletin*, dated February 21, 1956 and hereby affirm :

1. That the entire edition of this number was delivered to me by the Stanford University Press on the morning of February 21, 1956.

2. That, envelopes having been addressed while the issue was in press, approximately 600 copies in individual envelopes were mailed by me at Stanford Post Office, at approximately 11.30 a.m. on February 21, 1956 by regular second class mail, and that six or seven additional copies were mailed by me at the same time by first-class airmail, in individual envelopes provided by Professor Myers.

3. That this mailing included all current names and addresses on the regular mailing list maintained by the Natural History Museum for S.I.B. and that the mailing list had been brought up to date between November 1955 and February 1956 by means of reply-paid return post cards—regular U.S. double post cards to the United States, and Universal Postal Union Reply Paid Return Post Cards to other countries. Copies of vol. 7, no. 1 were sent only to those who had replied.

4. That this mailing list included the principal zoological, ichthyological, or natural history museum libraries in Ann Arbor, Berkeley, Cambridge, Mass., Chicago, Honolulu, New Haven, New York, Philadelphia, San Francisco, Washington, Berlin, Calcutta, Cape Town, Copenhagen, La Plata, Leningrad, London, Paris, Rio de Janeiro and Sydney, and many other cities in a total of 58 countries

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<sup>2</sup> The letter here referred to by Miss Storey contained the same questions as those set out in Mr. Hemming's letter to Mr. Axelrod of the same date. These have been given in Footnote 1 above.

throughout the world, the Editors of "Science" and "Nature", numbering in all, 258 ; and approximately 335 individual ichthyologists throughout the world.

5. That this number was available through public sale from the Director of this Museum, upon the morning of February 21, 1956.

6. That approximately 350 additional copies of this number were delivered to the Gift and Exchange Department of the Stanford University Library on February 21, 1956, to be used by them for exchanges with 282 libraries of institutions, in 52 countries, with which the Natural History Museum Library does not directly exchange. The Stanford Library distributed 282 copies during the month of March.

7. That a number of post card receipt notices have been received by us from institutions and individuals, showing that this number of the Bulletin was received without undue delay in many widely scattered parts of the world. (Unfortunately, almost no persons or institutions in North America or Western Europe commonly send us such receipts.)

8. That February 21, 1956 fell on a Tuesday, followed by a legal national holiday (Washington's Birthday, Feb. 22), so that no copies sent to any great distance and delivered by the United States mails could have been delivered until February 23. (I am told by Professor Myers that several persons on the Atlantic Seaboard, approximately 3,000 miles from Stanford, received airmail copies on February 23.)

I trust that the above will be satisfactory.

## II. THE SUBSEQUENT HISTORY OF THE CASE

**3. Registration of the present application :** Upon the receipt in the Office of the Commission of the preliminary enquiries referred to in paragraph 1 above, the question of the relative priority to be accorded to the names *Cheirodon axelrodi* Schultz and *Hyphessobrycon cardinalis* Myers & Weitzman was allotted the Registered Number Z.N.(S.) 1082.

**4. Publication of the present application :** The documents relating to the present case were sent to the printer on 7th June 1956 and were published on 24th August 1956 (Ashdown [request for Ruling by the International Commission], 1956, *Bull. zool. Nomencl.* **12** : 184 ; Hemming [Report as Secretary], 1956, *ibid.*

12 : 185 ; Schultz [letter dated 23rd May 1956], 1956, *ibid.*  
 12 : 186 ; Axelrod [letter with enclosure dated 23rd May 1956],  
 1956, *ibid.* 12 : 187—188 ; Storey (Margaret H.) [letter dated 23rd  
 May 1956], 1956, *ibid.* 12 : 189—190).

**5. Comment received from Denys W. Tucker (British Museum (Natural History), London :** On 19th September 1956 Mr. Denys W. Tucker (*British Museum (Natural History), London*) communicated the following comment to the Office of the Commission (Tucker, 1956, *Bull. zool. Nomencl.* 12 : 317) :—

**Support for “*Hyphessobrycon cardinalis*” Myers & Weitzman versus  
 “*Cheirodon axelrodi*” Schultz**

The ordinary question of date priority for one or other of these names will be decided by the International Commission on the basis of the evidence provided in *Bull. zool. Nomencl.* 12 : 184—190. I can add nothing further to this aspect of the problem, except the expression of a certain curiosity as to why Vol. 4, No. 4 of the *Tropical Fish Hobbyist* should carry the precise date 20th February 1956, whereas the preceding issue is merely dated January—February 1956, and the succeeding one reverts to the similar form May—June 1956. I feel that the Commission should carefully weigh all the possible implications of this phenomenon.

A factor that I would emphasize in favour of *Hyphessobrycon cardinalis* Myers & Weitzman is that this name was clearly published as a voluntary act of publication by these authors and in a journal normally serving as a vehicle of taxonomic publication. *Cheirodon axelrodi* Schultz, on the other hand, does not appear to have been deliberately published by its author.

Dr. Schultz sent a personal letter to Mr. H. R. Axelrod which the latter apparently published on his own responsibility in the *Tropical Fish Hobbyist* (4(4) : 41—43) a lay journal. The letter contains no indication that Dr. Schultz was anticipating immediate publication in that form and, in fact, his concluding paragraph may be construed as a statement that he intended further study before undertaking definitive publication. This interpretation of his intentions is further supported by Mr. Axelrod's statement in *Tropical Fish Hobbyist* (4(5) : 16) that the magazine was already printing before Dr. Schultz's corrected galley proofs were returned.

**6. Report submitted to the Commission by the Secretary at the close of the Prescribed Six-Month Waiting Period following the publication of the present case in the “Bulletin of Zoological**

**Nomenclature** ” : At the close of the Prescribed Waiting Period following the publication of the present case in the *Bulletin of Zoological Nomenclature*, Mr. Hemming submitted the following brief Report to the International Commission on 28th February 1957 as part of the arrangements for the taking by the Commission of a vote on the issue raised in the present case :—

**The situation created by the virtually simultaneous publication of scientific names (a) by Schultz (L.P.) and (b) by Myers (G.S.) & Weitzman (S.H.) respectively for the same species of Characin fish**

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

(Secretary to the International Commission on Zoological Nomenclature)

The time has come when it is due to submit to the International Commission for decision the question as to which of the following names, which it is agreed apply to the same previously undescribed species of Characin fish, was the first to be published :—

- (a) *Cheirodon axelrodi* Schultz (L.P.), 1956, *The Tropical Fish Hobbyist* 4 (No. 4) : 41—43 ;
- (b) *Hyphessobrycon cardinalis* Myers (G.S.), & Weitzman (S.H.) 1956, *Stanford Ichthyol. Bull.* 7(1) : 1—4.

2. The application now before the International Commission was submitted on 14th May 1956 by Mr. L. W. Ashdown (*Editorial Department, "Water Life", London*), who asked for a Ruling as to which of the foregoing names should be accepted in preference to the other (Ashdown, 1956, *Bull. zool. Nomencl.* 12 : 184).

3. In order to assist the International Commission in dealing with the present case, I addressed formal invitations to those concerned in the publication of these names to furnish such evidence as might be available regarding the date of mailing of the Parts of the serials in which the names concerned were respectively published. The following information was received in response to the above request :—

- (a) **Letters relating to the publication of the name "Cheirodon axelrodi" Schultz**
  - (i) Letter dated 23rd May 1956 from Leonard P. Schultz
  - (ii) Letter with enclosure, dated 23rd May 1956 from Herbert R. Axelrod, Editor, "The Tropical Fish Hobbyist "



(b) Letter relating to the publication of the name "Hyphessobrycon cardinalis" Myers & Weitzman

Letter dated 23rd May 1956 from Margaret H. Storey, Assistant Editor, "Stanford Ichthyological Bulletin".

4. The above letters were published in the *Bulletin of Zoological Nomenclature* concurrently with the publication of the application submitted by Mr. Ashdown. The references are as follows: (1) Schultz, 1956, *Bull. zool. Nomencl.* **12** : 186; (2) Axelrod, 1956, *ibid.* **12** : 187—188; (3) Storey, 1956, *ibid.* **12** : 189—190. These letters contain a wealth of detail in regard to the subjects with which they deal. I do not propose to summarise them here, for I consider that they should be studied carefully *in extenso*.

5. *Comments received*: A comment was received from Denys W. Tucker (*British Museum (Natural History), London*) who expressed certain criticism in regard to the circumstances in which the name *Cheirodon axelrodi* Schultz was published and indicated a preference for the name *Hyphessobrycon cardinalis* Myers & Weitzman. The text of this letter has been published on page 317 of volume 12 of the *Bulletin*. It had been hoped that the Nomenclature Committee of the American Society of Ichthyology and Herpetology might have been able to assist the Commission in the consideration of this case, but no response has been received to the invitation issued to that body.

6. It will be apparent to any reader of the papers relating to the present case that the circumstances surrounding it have excited strong feelings. It is particularly necessary therefore that in considering this matter the Commission should address itself solely to the issue before it, namely the question as to which of the two names concerned was the first to be published.

7. The specific name of whichever of the nominal species the Commission decides was the first to be established will need to be placed on the *Official List of Specific Names in Zoology*. It will not, however, be possible to place on the *Official Index of Rejected and Invalid Specific Names in Zoology* the specific name of the nominal species which the Commission decides was the later established of the two nominal species concerned, for, although it is agreed that the two names concerned apply to the same taxon, the names being based upon different specimens are subjective and not objective synonyms of one another and both are therefore nomenclatorially available names. Accordingly, in order to place formally on record the decision now to be taken by the Commission it will be necessary, when the proposed entry is made on the *Official List of Specific Names in Zoology*, to adopt the procedure followed in analogous cases by endorsing the entry in question to the effect that by a Ruling given by the Commission the name so placed on the *Official List* is to be treated as having been published prior to the other of the two names concerned.

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

**7. Issue of Voting Paper V.P.(57)22 :** On 28th February 1957 a Voting Paper (V.P.(57)22) in the following terms was issued to the Members of the International Commission on Zoological Nomenclature :—

#### VOTING PAPER

Having carefully weighed the evidence submitted by the parties concerned (1956, *Bull. zool. Nomencl.* **12** : 186—190) regarding the dates on which were published the relevant Parts of the serial publications *The Tropical Fish Hobbyist* and the *Stanford Ichthyological Bulletin* respectively, I am of the opinion that of the two names concerned

the name  $\left\{ \begin{array}{l} \textit{Cheirodon axelrodi} \\ \text{Schultz} \\ \textit{Hyphessobrycon cardinalis} \\ \text{Myers \& Weitzman} \end{array} \right\}^*$  was the

first to be published and I accordingly vote in favour of the specific name of the nominal species in question being placed on the *Official List of Specific Names in Zoology*, the entry so made to be endorsed in the manner specified in paragraph 7 of the Report bearing the Registered Number Z.N.(S.) 1082 submitted by the Secretary<sup>3</sup> simultaneously with the present Voting Paper.

*Signature of Commissioner*.....

*Date of Signature*.....

\* Delete whichever name is considered inappropriate.

**8. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 28th May 1957.

<sup>3</sup> The text of the Report here referred to has been reproduced in paragraph 6 of the present *Opinion*.

**9. Particulars of the Voting on Voting Paper V.P.(57)22 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)22 was as follows :—

(a) *In favour of the acceptance of the name “ Cheiroduon axelrodi ” Schultz as having been published before the name “ Hyphessobrycon cardinalis ” Myers & Weitzman, nineteen (19) votes :*

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

(b) *In favour of the acceptance of the name “ Hyphessobrycon cardinalis ” Myers & Weitzman as having been published before the name “ Cheiroduon axelrodi ” Schultz, five (5) votes :*

Mertens ; Prantl ; Bodenheimer ; Jaczewski ; Kühnelt ;

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

Hankó.

**10. Declaration of Result of Vote :** On 29th May 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)22, 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 24th June 1957 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.(57)22.

**12. Original Reference :** the following is the original reference for the specific name placed on the *Official List of Specific Names in Zoology* by the Ruling given in the present *Opinion* :—

*axelrodi*, *Cheirodon*, Schultz (L.P.), 20th February 1956, *Tropical Fish Hobbyist* 4 (No. 4) : 42

**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 Eighty-Five (485) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Fourth day of June, 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

VOLUME 17. Part 23. Pp. 104A—104J

## RESOLUTION SUPPLEMENTARY TO OPINION 485

On the subject of the relative priority to be assigned to the names *Cheirodon axelrothi* Schultz (L.P.) and *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.) (Class Pisces), both being names published in February 1956

LONDON :

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1958

Price Six Shillings and Sixpence

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN THE RESOLUTION SUPPLEMENTARY TO OPINION 485

### 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 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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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)

**RESOLUTION**  
**SUPPLEMENTARY TO**  
**OPINION 485**

**ON THE SUBJECT OF THE RELATIVE PRIORITY TO  
BE ASSIGNED TO THE NAMES "CHEIRODON  
AXELRODI" SCHULTZ (L.P.) AND  
"HYPHESSOBRYCON CARDINALIS"  
MYERS (G.S.) & WEITZMAN (S.H.)  
(CLASS PISCES), BOTH BEING  
NAMES PUBLISHED IN  
FEBRUARY 1956**

**RESOLUTION** :—The International Commission on Zoological Nomenclature, having been informed of the receipt of communications criticising the Ruling given in *Opinion* 485 that the name *Cheirodon axelrodi* Schultz (L.P.) be treated as having been published on 20th February 1956, and therefore as having priority over the name *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.) published on 21st February 1956,

**HEREBY :**

**RECALLS** that in determining an issue concerned solely with questions of fact its only duty is to give a Ruling on that issue in the light of such evidence as may be submitted to it or which it may itself obtain,

**PLACES** on record that the Ruling given in the matter aforesaid in its *Opinion* 485 was determined in accordance with the procedure specified above, and

**DECLARES** that it is not prepared to review the said Ruling, unless it receives either (i) a statement from one or more of the parties concerned correcting the information previously furnished as to the date on

which the name of which he was the author or, as the case may be, the relevant part of the serial publication of which he was the editor, was published, or (ii) evidence of proceedings in an American Court of Law containing a Ruling by the Court that information that had been supplied to the Commission by one or more of the parties was incorrect.

## I. THE SUBJECT MATTER OF THE PRESENT “ RESOLUTION ”

On 4th February 1958 the Secretary, acting on advice received from the Legal Advisers to the International Trust for Zoological Nomenclature, prepared for the consideration of the International Commission on Zoological Nomenclature the following Report relating to the procedure to be adopted for dealing with certain protests which had been received in the Office of the Commission against the Ruling given by the Commission in its *Opinion* 485 on the subject of the relative priority to be assigned to the names *Cheiro donaxelrodi* Schultz (L.P.) and *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.) (Class Pisces), both being names published in February 1956 :—

**Protests received against the Ruling given by the International  
Commission on Zoological Nomenclature in its “ Opinion ” 485  
regarding the relative precedence to be accorded to two names  
for a new species of aquarium fish published almost  
simultaneously in February 1956**

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

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

I am sorry to find it my duty to trouble the International Commission on Zoological Nomenclature with the following particulars regarding protests which have been received against the Ruling given by it in its *Opinion* 485 (1957, *Ops. Decls. int. Comm. zool. Nomencl.* **17** : 87—104)



on the subject of the relative precedence to be accorded to the under-mentioned names for a new species of aquarium fish published almost simultaneously in February 1956 :—

- (i) *Cheirodon axelrodi* Schultz (L.P.), published in *Tropical Fish Hobbyist* 4 (No. 4) : 42
- (ii) *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.), published in *Stanford Ichthyological Bulletin* 7(1) : 1

2. As a preliminary, I consider it necessary to recall that when this matter was first brought to the attention of the International Commission (through an application for a Ruling submitted by Mr. L. W. Ashdown, Editorial Department, "Water Life & Aquaria World", London), it was evident that these names had been published so close to one another in time that exceptional measures were called for to establish beyond possibility of doubt which of the two names concerned was the first to be published. Accordingly, as Secretary to the Commission, I addressed letters to the authors of each of the names in question and to the editors of the serial publications in which these names were respectively published, inviting them to furnish such evidence as might be in their possession as to the dates of publication of the names cited above. The replies received were published on 24th August 1956 in Volume 12 of the *Bulletin of Zoological Nomenclature* (pp. 186—190) simultaneously with the paper in which Mr. Ashdown had asked for a Ruling as to the relative priority of the two names in question (: 184).

3. The information so obtained showed :—

- (a) that the publication of the Part of the serial *Tropical Fish Hobbyist* containing Dr. Schultz's description of the nominal species *Cheirodon axelrodi* commenced on 20th February 1956, on which date copies estimated by the Editor at about 3,000 were distributed to subscribers;
- (b) that the publication of the Part of the serial *Stanford Ichthyological Bulletin* containing the description by Professor Myers and Dr. Weitzman of the nominal species *Hyphessobrycon cardinalis* commenced on 21st February 1956, when 600 copies were mailed to subscribers.

4. On the basis of the information furnished by the authors of the two names and by the editors of the serial publications in which those names were published—as summarised in the immediately preceding

paragraph—the International Commission gave a Ruling in its *Opinion* 485 that the name *Cheirodon axelrodi* Schultz ranked for the purpose of priority as from the 20th February 1956 and the name *Hyphessobrycon cardinalis* Myers & Weitzman as from 21st February 1956, the name introduced by Schultz thus taking priority over that introduced by Myers & Weitzman.

5. In a case such as the present the only question which it is open to the International Commission to take into consideration and to promulgate a decision on, is the question of fact as to which of the two names concerned was the first to be published. All other matters are irrelevant and would fall outside the scope of the duties allotted to the International Commission by the International Congresses of Zoology. In dealing with the one matter with which it is concerned in such a case, it is the duty of the Commission to take all reasonable measures to ascertain the facts and, having done so, to give a Ruling on the basis of the information so obtained. As has been explained in paragraph 2 above, exceptional measures were taken to ascertain the facts in this case and it was on the basis of the information so obtained that the Commission in *Opinion* 485 took its decision in this case.

6. In these circumstances the only ground on which the decision of the Commission in this matter could properly be questioned would be that the information on which it had taken its decision was incomplete or incorrect and misleading. Any person attempting to establish such a proposition would need to be in a position to bring forward particulars which could not fail to impugn the good faith of one or more of the parties concerned. As regards this, I have to report that the International Trust for Zoological Nomenclature, as the proprietor of the *Bulletin of Zoological Nomenclature*, has intimated that it would not be prepared to publish such matters in the above serial if invited to do so. Further, I have to report, as Secretary to the International Commission, that on the advice of the Trust's Legal Advisers, I should not be prepared to communicate copies of documents dealing with such matters to the Members of the International Commission.

7. The position in this matter may be summarised as follows :—

- (a) In taking the decision promulgated in *Opinion* 485 the Commission discharged in full its duties by determining the issue of fact submitted to it for decision.

(b) It would not be possible for the International Commission to review the Ruling given in the above *Opinion* unless it were to receive either :—

(i) a statement from one or more of the parties concerned correcting the information previously furnished as to the date on which the name of which he was the author or, as the case may be, the relevant part of the serial publication of which he was the editor, was published ;

or

(ii) evidence of proceedings in an American Court of Law containing a Ruling by the Court that information that had been supplied to the Commission by one or more of the parties was incorrect.

8. When I first received communications protesting against the Ruling given in *Opinion* 485, I informed the zoologists concerned that it was only possible for the International Commission to take decisions on questions of fact in the light of such evidence as is submitted to it or which it is able to obtain on the issues in dispute and that this is what the Commission had done in the present case. From further communications received at a later date it is evident that the zoologists concerned will not be satisfied until they receive a communication directly approved by the International Commission itself. In the more recent cases I have therefore confined myself to stating that the communications submitted will receive attention.

9. In a case of this kind where, as is evident, very strong feelings are held, it is, I consider, reasonable that the reply to be furnished should be a reply directly approved by the Commission as a body. It is for this reason that I am now submitting the present paper to the Commission.

10. My recommendation is :—

- (1) that the Commission should adopt a Resolution in the terms of the draft set out in the Annexe to the present paper ;
- (2) that the Resolution, so approved, be published in a Supplementary Part in the current volume of the “ *Opinions and Declarations* ” Series and that the present paper be annexed to it for purposes of record.

## ANNEXE TO THE REPORT BY THE SECRETARY

**Draft of a Proposed Resolution**

The International Commission on Zoological Nomenclature, having been informed of the receipt of communications criticising the Ruling given in *Opinion* 485 that the name *Cheirodon axelrodi* Schultz (L.P.) be treated as having been published on 20th February 1956, and therefore as having priority over the name *Hyphessobrycon cardinalis* Myers (G.S.) & Weitzman (S.H.) published on 21st February 1956,

**HEREBY :**

RECALLS that in determining an issue concerned solely with questions of fact its only duty is to give a Ruling on that issue in the light of such evidence as may be submitted to it or which it may itself obtain,

PLACES on record that the Ruling given in the matter aforesaid in its *Opinion* 485 was determined in accordance with the procedure specified above, and

DECLARES that it is not prepared to review the said Ruling, unless it receives either (i) a statement from one or more of the parties concerned correcting the information previously furnished as to the date on which the name of which he was the author or, as the case may be, the relevant part of the serial publication of which he was the editor, was published, or (ii) evidence of proceedings in an American Court of Law containing a Ruling by the Court that information that had been supplied to the Commission by one or more of the parties was incorrect.

**2. Registration of the present case :** Upon the receipt of the Secretary's Report, the question of the possible adoption by the Commission of a Resolution Supplementary to *Opinion* 485 was allotted the Registered Number Z.N.(S.) 1320.

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

**3. Issue of Voting Paper V.P.(O.M.)(58)2 :** On 12th February 1958 a Voting Paper (V.P.(O.M.)(58)2) was issued in which the Members of the Commission were invited to vote either for, or

against, " the proposal relating to the procedure to be adopted for dealing with the protests received against the Ruling given in *Opinion* 485 (on the question of the relative precedence to be accorded to two names for a new species of aquarium fish published almost simultaneously in February 1956), as set out in paragraph 10 of the paper bearing the Registered Number Z.N.(S.) 1320 submitted by the Secretary simultaneously with the present Voting Paper " [i.e. in the paragraph numbered as above in the Report reproduced in the first paragraph of the present Instrument].

**4. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 12th March 1958.

**5. Particulars of the Voting on Voting Paper V.P.(O.M.)(58)2 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(58)2 was as follows<sup>1</sup>:—

(a) *Affirmative Votes had been given by the following twenty-one (21) Commissioners (arranged in the order in which Votes were received) :*

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

(b) *Negative Votes, two (2) :*

Boschma ; Mayr ;

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

Miller ;

(d) *Voting Papers not returned :*

None.

<sup>1</sup> The Membership of the International Commission at the time of the vote on Voting Paper V.P.(O.M.)(58)2 amounted to twenty-four, whereas at the time of the vote on the earlier Voting Paper (Voting Paper V.P.(57)22) on this case it had amounted to twenty-five. This difference was due to the death during the intervening period of Commissioner Teiso Esaki (*Japan*).

**6. Declaration of Result of Vote :** On 14th March 1958, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(58)2 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 Instrument :** On 14th March 1958 Mr. Hemming prepared the present Instrument and at the same time signed a Certificate that the terms of the Resolution as set out at the head of the said Instrument were identical with those in the proposal approved by the International Commission by its Vote on Voting Paper V.P.(O.M.)(58)2.

**8. Compliance with Prescribed Procedures :** The prescribed procedures were duly complied with by the International Commission on Zoological Nomenclature in dealing with the present matter, and the present Instrument is accordingly hereby rendered in the name of the said International Commission by 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. Title of the present Instrument :** The present Instrument shall be known as " Resolution Supplementary to *Opinion 485* " of the International Commission on Zoological Nomenclature.

DONE in London, this Fourteenth day of March, Nineteen Hundred and Fifty-Eight.

*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 17. Part 8. Pp. 105—118**

**OPINION 486**

Validation under the Plenary Powers as from Morris (1845) of the specific name *brachythaerus*, as published in the combination *Productus brachythaerus* and designation under the same Powers of the species so named to be the type species of the genus *Terrakea* Booker, 1930 (Class Brachiopoda)

**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 486

### 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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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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 486

VALIDATION UNDER THE PLENARY POWERS AS FROM MORRIS (1845) OF THE SPECIFIC NAME "BRACHYTHAERUS", AS PUBLISHED IN THE COMBINATION "PRODUCTUS BRACHYTHAERUS" AND DESIGNATION UNDER THE SAME POWERS OF THE SPECIES SO NAMED TO BE THE TYPE SPECIES OF THE GENUS "TERRAKEA" BOOKER, 1930 (CLASS BRACHIOPODA)

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

- (a) The under-mentioned specific names are hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy :—
  - (i) *brachythaerus* Sowerby (G.B.), 1844, as published in the combination *Producta brachythaerus* ;
  - (ii) *brachythaerus*, in combination with the generic name *Productus* or its variant spelling *Producta*, all uses of, subsequent to Sowerby (1844) and prior to Morris (1845).
- (b) The specific name *brachythaerus*, as published in the combination *Productus brachythaerus*, is hereby validated as from Morris (1845).
- (c) It is hereby directed that the nominal species *Productus brachythaerus* Morris, 1845, is to be interpreted by reference to the specimen (i) figured by Morris as fig. 4c on plate 14 *in de*

Strzelecki (P.E.), 1845, *Physical Description of New South Wales and Van Diemen's Land* and re-figured by Hill (D.), 1950, "The Productinae of the Artiskian Cracow Fauna of Queensland" *Univ. Qld. Papers*, Dept. Geol. 3(2) : 19 and (ii) now preserved in the British Museum (Natural History), London, under the Registered Number BB.9466.

- (d) All type selections for the genus *Terrakea* Booker, 1930, made prior to the present Ruling are hereby set aside and the nominal species *Productus brachythaerus* Morris, 1845, as validated and interpreted under the Plenary Powers under (b) and (c) above, is hereby designated to be the type species of the above genus.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1225 :—

*Terrakea* Booker, 1930 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(d) above : *Productus brachythaerus* Morris, 1845, as validated and defined under the Plenary Powers in (1)(b) and (1)(c) above).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 1431 :—

*brachythaerus* Morris, 1845, as published in the combination *Productus brachythaerus*, as validated under the Plenary Powers in (1)(b) and as interpreted under the same Powers in (1)(c) above (specific name of type species of *Terrakea* Booker, 1930).

(4) 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) *brachythaerus* Sowerby (G.B.), 1844, as published in the combination *Producta brachythaerus*, as suppressed under the Plenary Powers under (1)(a)(i) above (Name No. 469) ;
- (b) *brachythaerus*, in combination with the generic name *Productus* or its variant spelling *Producta*, all uses of subsequent to Sowerby (1844) and prior to Morris (1845), as suppressed under the Plenary Powers under (1)(a)(ii) above (Name No. 470).

## I. THE STATEMENT OF THE CASE

On 20th January 1954, Dr. W. G. H. Maxwell (*Imperial College of Science and Technology, London*) submitted to the International Commission on Zoological Nomenclature a preliminary application for the use of the Plenary Powers to define the nominal species *Productus brachythaerus* Sowerby (G.B.), 1844, by reference to the species figured by Morris under the above name in 1845. Dr. Dorothy Hill (*University of Queensland, Brisbane, Australia*), who had previously been in correspondence with the Office of the Commission on this subject but had been unable to complete her investigations, had made available to Dr. Maxwell all the correspondence which she had in her possession relating to the present case. Following correspondence between Dr. Maxwell and the Secretary to the Commission, Dr. Maxwell on 15th June 1954 submitted the following revised application in which he asked for the suppression under the Plenary Powers of the specific name *brachythaerus* Sowerby, 1844, as published in the com-

bination *Productus brachythaerus*, and for the validation of the same name as from Morris (1845) :—

**Proposed use of the Plenary Powers to designate a type species in harmony with accustomed usage for "Terrakea" Booker (F.W.), 1930 (Class Brachiopoda), a genus based upon a misidentified type species and to validate the name currently used for the species so to be designated**

By W. G. H. MAXWELL, BSc., Ph.D.

(Beit Scientific Research Fellow,  
Imperial College of Science and Technology, London)

It is the object of this application to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to suppress as a *nomen dubium* the specific name *brachythaerus* Sowerby (G.B.), 1844, as published in the combination *Producta brachythaerus* (in Darwin (C.R.), *Geological Observations on the Volcanic Islands* : 158), and to designate as the type species of *Terrakea* Booker (F.W.), 1930 ("A Review of some of the Permo-Carboniferous Productidae of New South Wales with a tentative reclassification" *J. Proc. roy. Soc. N.S.W.* 64 : 66), the species figured as *Productus brachythaerus* by Morris in de Strzelecki (P.E.), 1845 ("Physical Description of New South Wales and Van Diemen's Land" pl. 14, fig. 4c). By so doing, the genus *Terrakea* Booker, 1930, and the species *Productus brachythaerus* Morris, 1845, will become available for use in their accustomed sense, and unnecessary confusion will be avoided. The particulars of the case are given below :—

2. Sowerby (G.B.), in Darwin, 1844 (: 158) described the species *Producta brachythaeras* nov., but gave no figures. He referred as follows to three specimens in the description :—" . . . it is in limestone, of the ordinary grey colour of mountain limestone. Another specimen, which I suppose to be an impression of the inside of the flat valve, is in stone, of a light rusty-brown colour. There is a third specimen, which I believe to be the impression of the inside of the deeper valve, in a nearly similar stone, accompanied by other shells." Only the second of these specimens is now extant. It is in the British Museum (Natural History). Buckman (R.), 1909 (in Etheridge (S.S.), Jr. and Dun (W.S.), "Notes on the Permo-Carboniferous Producti of Eastern Australia; with Synonymy", *Rec. geol. Surv. N.S.W.* 8(4) : 298), Hill (D.), 1950 ("The Productinae of the Artinskian Cracow Fauna of Queensland" *Univ. Qld. Papers*, Dept. Geol. 3(2) : 19) and the present author have identified the specimen B.19298 in the British Museum (Natural History) as probably being the second specimen mentioned by Sowerby in 1844 (: 158). It belongs to the genus *Strophalosia* King (W.), 1846, and may be conspecific with *Strophalosia*

*jukesi* Etheridge (R.), Jr., 1880. However, the specific identity of the other two specimens is unknown and there is no evidence to suggest that they were conspecific with specimen B.19298 discussed above.

3. Morris, 1845 (*in de Strzelecki op. cit.* : 284, pl. 14, figs. 4a—c) described and figured two specimens under the name *Productus brachythaerus* Sowerby. Some later authors have regarded these two specimens as belonging to separate species, others as variants of the one species. However, those workers who have examined both Morris's two specimens and Sowerby's only existing specimen are unanimous in their conclusion that they are not conspecific or even congeneric. Morris's specimens belong to the genus which Booker, 1930 (*op. cit.* : 66) described as *Terrakea*; the only existing specimen of Sowerby's belongs to *Strophalosia* King, 1846.

4. Subsequent authors have interpreted *Producta brachythaerus* Sowerby as being the same species as that shown as fig. 4c of Morris's plate 14. These authors include de Koninck (L.G.), 1877 (*Fossiles Paléozoïques de la Nouvelle-Galles du Sud* 3 : 198, pl. 10, figs. 4, 4a (err. pro 3, 3a)); Etheridge, Jr., 1880 ("On a collection of fossils from the Bowen River Coalfield and the limestone of the Fanning River, North Queensland", *Proc. roy. Phys. Soc. Edinb.* 5(7) : 284, pl. 8, fig. 16, pl. 9, figs. 17, 18); Jack (R.L.) and Etheridge, 1892 (*Geology and Palaeontology of Queensland and New Guinea* : 248—252, pl. 12, figs. 10—13, pl. 13, fig. 5. pl. 44, fig. 14); Etheridge and Dun, 1909 ("Notes on the Permo-Carboniferous Producti of Eastern Australia; with Synonymy". *Rec. geol. Surv. N.S.W.* 8(4) : 293—300, pls. 42, 43); Booker, 1930 (*op. cit.* : 66).

5. Hill, 1950 (*op. cit.* : 18), although distinguishing Sowerby's and Morris's species from one another, stated "I use *Terrakea* in Booker's sense for species congeneric with *P. brachythaerus* Morris, fig. 4c non Sowerby".

6. Booker, 1930 (: 66) erected the genus *Terrakea* nov., and designated as the type species "*Terrakea brachythaera* G. B. Sowerby, 1844 (sp.)". Booker had not seen Sowerby's specimens, and, following authors subsequent to Sowerby, 1844, he interpreted *Producta brachythaerus* on the species figured as 4c on plate 14 by Morris, 1845 (*op. cit.*).

7. Hill, 1950 (: 18—20) reviewed the problems associated with *Terrakea* and *Producta brachythaerus*, and concluded that under the *Règles*, *P. brachythaerus* ought to be interpreted on what is probably Sowerby's only extant specimen, which belongs to a species of *Strophalosia* King, 1846.

8. **Discussion :** At this point it is necessary to note that in his description of *Producta brachythaerus*, Sowerby, 1844 (*op. cit.*) referred to three specimens (see paragraph 1 above), but under Rule (e) in Article 30, only the first would have been eligible for selection as the lectotype, since doubt was expressed as to the identity of the other two specimens. The first specimen is now lost, and Sowerby's original description is insufficient to indicate whether its characters were those of *Strophalosia* King, 1846, or those of *Terrakea* Booker, 1930. Consequently, *Producta brachythaerus* Sowerby, 1844 is a *nomen dubium*.

9. The name *Terrakea* Booker, 1930, has become firmly established in Australian literature and it is desirable that this usage should not be disturbed. All the difficulties in the present case would disappear if the name *brachythaerus* Sowerby, 1844, as published in the combination *Producta brachythaerus* were to be suppressed by the Commission under its Plenary Powers and the same name validated as from Morris, 1845 (: pl. 14, fig. 4c), the species so named being designated by the Commission as the type species of *Terrakea* Booker. A solution on these lines would moreover be in full harmony with the Directive given to the Commission by the Thirteenth International Congress of Zoology, Paris, 1948, under which the Commission is required to use its Plenary Powers to secure that, where a genus is based (as was *Terrakea* Booker) upon a misidentified type species, the type species of that genus shall be the species so intended by the original author of the generic name in question in cases where (as in the present instance) current usage is based upon the intention of that author and not upon the species actually cited by him when establishing the nominal genus concerned (see 1950, *Bull. zool. Nomencl.* 4 : 158—159). This therefore is the action which I recommend that the Commission should take.

10. The proposal which is now submitted is that the International Commission should :—

(1) use its Plenary Powers :—

(a) to suppress for the purposes both of the Law of Priority and of the Law of Homonymy :—

(i) the specific name *brachythaerus* Sowerby (G.B.), 1844, as published in the combination *Producta brachythaerus* ;

(ii) any uses of the specific name *brachythaerus* in combination with the generic name *Productus* or its variant spelling *Producta* subsequent to Sowerby, 1844, and prior to Morris, 1845 ;

- (b) to validate the specific name *brachythaerus* in the combination *Productus brachythaerus* as from Morris, 1845, the species so named to be interpreted by reference to the specimen (i) figured by Morris as fig. 4c on plate 14 in the paper referred to above and re-figured by Hill in 1950 (: pl. 2, fig. 1) and (ii) now preserved in the British Museum (Natural History) under the Registered Number BB.9466 ;
- (c) under the procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948, for determining the species to be accepted as the type species of a genus based upon a misidentified species, (i) to set aside all designations or selections of type species for the genus *Terrakea* Booker, 1930 (Class Brachiopoda) made prior to the Ruling now asked for and (ii), having done so, designate as the type species of the foregoing genus the nominal species *Productus brachythaerus* Morris, 1845, as validated and defined under the Plenary Powers under (b) above ;
- (2) place the under-mentioned generic name on the *Official List of Generic Names in Zoology* :—*Terrakea* Booker, 1930 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(c) above : *Productus brachythaerus* Morris, 1845, as validated and defined under the Plenary Powers under (1)(b) above ;
- (3) place the under-mentioned specific name on the *Official List of Specific Names in Zoology* :—*brachythaerus* Morris, 1845, as published in the combination *Productus brachythaerus*, as validated under the Plenary Powers under (1)(b) above (specific name of type species of *Terrakea* Booker, 1930) ;
- (4) place the names and usages specified respectively in (1)(a)(i) and (1)(a)(ii) above, as there suppressed under the Plenary Powers, 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 Dr. Maxwell's preliminary communication the question of the

validation of the specific name *brachythaerus* Morris, 1845, as published in the combination *Productus brachythaerus*, was allotted the Registered Number Z.N.(S.) 438.

**3. Publication of the present application :** The present application was sent to the printer on 30th November 1955 and was published on 9th May 1956 in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Maxwell, 1956, *Bull. zool. Nomencl.* **11** : 333—336).

**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 9th May 1956 (a) in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Maxwell's application was published) and (b) to the other prescribed serial publications. In addition such notice was given also to four general zoological serial publications and to three palaeontological serials in Europe and America.

**5. Support received :** The action recommended in this case was supported by two specialists when the present application was in course of preparation, namely :—(a) F. W. Booker (*Geological Survey N.S. Wales, Sydney, N.S.W., Australia*) (see paragraph 6 of the application reproduced in paragraph 1 of the present *Opinion*) and (b) Dr. Helen Muir-Wood (*British Museum (Natural History), London*). The communication from the latter specialist is reproduced in the immediately following paragraph.

**6. Support received from Helen Muir-Wood (British Museum (Natural History), London) :** On 20th July 1955, Dr. Helen Muir-



Wood (*British Museum (Natural History), London*) addressed the following letter of support to the Office of the Commission :—

*Terrakea* Booker, 1930 : I am publishing a note on this genus in my joint paper with Dr. G. A. Cooper probably in the *Mem. Geol. Soc. Amer.* next year. In this I have proposed the suppression of *brachythaerus* G. B. Sowerby, 1844, since we have no specimens we can with certainty relate to this. Sowerby did not figure his species and he apparently included more than one form in his description. The specimen in the Darwin collection which may possibly be one of those described by Sowerby belongs to the genus *Strophalosia*. It would, therefore, be best to suppress the species *brachythaerus* G. B. Sowerby, 1844, and validate the name as from Morris, 1845, as represented by Morris's figure 4c on plate 14. This specimen is preserved in the Strzelecki collection in our museum no. BB.9466. New South Wales. Hill, who refigured the specimen in 1950, *Univ. Queensl. Paprs.*, Geol. 3, no. 2, pl. 2, fig. 1 said the locality was probably "Illawarra or Raymond Terrace, New South Wales". Labels on specimen, oval yellow ticket BB.9466, round green spot denoting figured specimen.

I therefore agree that the best course would be to validate the name *Productus brachythaerus* as from Morris (1845). If the species is to be interpreted by reference to this specimen and G. B. Sowerby's species is to be invalidated, this specimen (fig. 4c) will require to be the lectotype. The specimen figured as figs. 4a, b by Morris in Strzelecki is not congeneric with fig. 4c.

**7. No objection received :** No objection to the action proposed in the present case has been received from any source.

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

**8. Issue of Voting Paper V.P.(56)43 :** On 30th November 1956 a Voting Paper (V.P.(56)43) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the generic name *Terrakea* Booker, 1930, as

set out in Points (1) to (4) in paragraph 10 on pages 335 and 336 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 *Opinion*].

**9. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd March 1957.

**10. Particulars of the Voting on Voting Paper V.P.(56)43 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)43 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) :*

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

(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.

**11. Declaration of Result of Vote :** On 3rd March 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper

V.P.(56)43, 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. Preparation of the Ruling given in the present "Opinion" :**

On 24th June 1957, 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)43.

**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* :—

*brachythaerus*, *Producta*, Sowerby (G.B.), 1844, in Darwin (C.R.), *Geol. Observ. Volcanic Islands* : 158

*brachythaerus*, *Productus*, Morris, 1845, in de Strzelecki (P.E.), *Phys. Descript. N.S. Wales and Van Diemen's Land* : pl. 14, fig. 4c

*Terrakea* Booker (F.W.), 1930, *J. Proc. roy. Soc. N.S.W.* **64** : 66.

**14. Family-Group-Name Aspects :** The family-group-name problems involved in the present case were not dealt with in the application submitted. It has, however, since been ascertained that the generic name *Terrakea* Booker, 1930, has not been taken as the base for a family-group name, the genus so named being currently placed in the family PRODUCTIDAE (oral communication received on 24th June 1957 from Dr. Helen Muir-Wood (*British Museum (Natural History)*, London)).

**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 Eighty-Six (486) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Fourth day of June, 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

**VOLUME 17. Part 9. Pp. 119—142**

**OPINION 487**

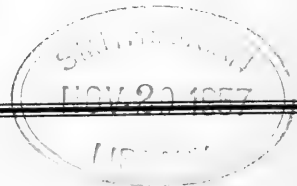
Validation under the Plenary Powers of the generic names  
*Gempylus* Cuvier, 1829 (Class Pisces) and *Acinaces*  
Gerstaecker, 1858 (Class Insecta, Order Coleoptera)

**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 487

### 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 (*University of Tulane, Department of Geology, New Orleans,  
Louisiana, 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 487

VALIDATION UNDER THE PLENARY POWERS OF THE  
GENERIC NAMES "GEMPYLUS" CUVIER, 1829 (CLASS  
PISCES) AND "ACINACES" GERSTAECKER, 1858  
(CLASS INSECTA, ORDER COLEOPTERA)

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

(a) The generic name *Acinaces* Agassiz (J.L.R.), 1846  
(Class Pisces) is hereby suppressed for the  
purposes both of the Law of Priority and of the  
Law of Homonymy.

(b) 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 *Acinacea* Bory de St. Vincent,  
1804 (Class Pisces) ;

(ii) the specific name *notha* Bory de St. Vincent,  
1804, as published in the combination  
*Acinacea notha* (Class Pisces).

(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) *Gempylus* Cuvier (G.L.C.F.D.), 1829, as protected  
by the suppression under the Plenary Powers in  
(1)(a) above of the generic name *Acinacea* Bory  
de St. Vincent, 1804 (gender : masculine) (type  
species, by monotypy : *Gempylus serpens*  
(G.L.C.F.D.), 1829) (Class Pisces) (Name No.  
1226) ;

(b) *Acinaces* Gerstaecker, 1858, as validated by the suppression under the Plenary Powers in (1)(a) above of the generic name *Acinacea* Bory de St. Vincent, 1804 (gender : masculine) (type species, by selection by Strohecker (H.F.) (1953) : *Acinaces lebasii* Gerstaecker, 1858) (Class Insecta, Order Coleoptera) (Name No. 1227).

(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) *serpens* Cuvier (G.L.C.F.D.), 1829, as published in the combination *Gempylus serpens* (specific name of type species of *Gempylus* Cuvier (G.L.C.F.D.), 1829) (Class Pisces) (Name No. 1432) ;

(b) *lebasii* Gerstaecker, 1858, as published in the combination *Acinaces lebasii* (specific name of type species of *Acinaces* Gerstaecker, 1858) (Class Insecta, Order Coleoptera) (Name No. 1433).

(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) *Acinaces* Agassiz (J.L.R.), 1846, as suppressed under the Plenary Powers in (1)(a) above (Name No. 1050) ;

(b) *Acinacea* Bory de St. Vincent, 1804, as suppressed under the Plenary Powers in (1)(b)(i) above (Name No. 1051) ;

(c) *Lucoscombrus* Van der Hoeven, 1858 (a junior objective synonym of *Gempylus* Cuvier (G.L.C.F.D.), 1829) (Name No. 1052).

(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 471 :—

*notha* Bory de St. Vincent, 1804, as published in the combination *Acinacea notha*, as suppressed under the Plenary Powers in (1)(b)(ii) above.

(6) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Number 194 :—

GEMPYLINAE Goode & Bean, 1895 (type genus : *Gempylus* Cuvier (G.L.C.F.D.), 1829).

(7) 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 228 :—

ACINACEIDAE McCulloch (A.R.), 1929 (type genus : *Acinacea* Bory de St. Vincent, 1804) (invalid under *Declaration 20* because the name of type genus suppressed under the Plenary Powers (in (1)(b)(i) above)).

## I. THE STATEMENT OF THE CASE

On 17th March 1955 Mr. Denys W. Tucker (*British Museum (Natural History), London*) submitted to the International Commission on Zoological Nomenclature a preliminary application designed to provide a valid basis for the continued use of the generic name *Gempylus* Cuvier, 1829 (Class Pisces). Following correspondence with the Secretary certain revisions were made

in the application relating to the present case, and these led to the submission on 14th June 1955 of the following definitive application :—

**Proposed use of the Plenary Powers to suppress the generic name “*Acinacea*” Bory de St. Vincent, 1804, and the specific name “*notha*” Bory de St. Vincent, 1804, as published in the combination “*Acinacea notha*”, for the purpose of making the generic name “*Gempylus*” Cuvier, 1829, and the name “*serpens*” Cuvier, 1829, as published in the combination “*Gempylus serpens*”, the oldest available names for the genus and species concerned (Class Pisces)**

By DENYS W. TUCKER, B.Sc.

(*British Museum (Natural History), London*)

The object of the present application is to ask the International Commission to use its Plenary Powers to suppress the generic name *Acinacea* Bory de St. Vincent, 1804 (*Voy. Isles Afrique* 1 : 93) and the specific name *notha* Bory de St. Vincent, 1804, as published on the same page in combination with the foregoing generic name, thereby making the generic name *Gempylus* Cuvier (G.L.C.F.D.), 1829 (*Règne Anim.* (ed. 2) 2 : 200) and the name *Gempylus serpens* Cuvier, 1829 (*loc. cit.* 2 : 200) the oldest available names for the genus and species concerned (Class Pisces, Order Percomorphi, family GEMPYLIDAE). Opportunity is taken to clarify the status of the name *Lemnisoma thyrsoideus* Lesson, 1831 (*Voy. Coquille, Zool.* 2 (No. 1) : 160), as regards which, however, no action is called for on the part of the Commission. A short history of the circumstances pertaining to the three names follows.

2. The name *Acinacea notha* Bory de St. Vincent is a borderline case so far as binominal nomenclature is concerned. The author introduces it under the name “l’acinacée bâtarde”, subsequently giving the Latinised form of the generic name thus : “*Acinacée (Acinacea)*”. He then proceeds to categorise it as follows :—

*Acinacea (notha) pinnulis supra, infraque sextis ; dentibus quinque in mandibulo superiori . . .*

In the case of a new species the author follows a similar practice throughout, giving the generic name in the usual way in italics and following it with the specific name in bracketed lower case letters. Linnean species are conventionally listed and it appears probable that the author comprehended, and in his own way applied, the principles of binominal nomenclature. The description is accompanied (Atlas : pl. IV, fig. 2) by a figure readily identifiable with the fish generally known as *Gempylus serpens* Cuvier.

3. The name *Acinacea* Bory de St. Vincent has never passed into general use. Agassiz (J.L.R.), 1846 (*Nomencl. zool. Index univ.* : 4) published the emendation *Acinaces* (a senior homonym of *Acinaces* Gerstaecker, 1858 (*Monogr. Endomych.* : 178) in the Coleoptera (Class Insecta)). Agassiz's emendation has also not been accepted. In 1940 (*Class. Fishes* : 483), however, Berg gave the name ACINACEIDAE as an alternative to GEMPYLIDAE, and Whitley, in 1951 (*Rec. Austral. Mus.* **22** : 398), sought to revive the name *Acinacea* in place of *Gempylus* and to substitute the name ACINACEIDAE for GEMPYLIDAE. Whitley's recommendations have so far been ignored outside Australia.

4. The name *Lemnisoma thyrsitoides* Lesson, [1831], was published in a work which bears the date "1830" and for this reason it has usually been assumed that the name *Gempylus serpens* Cuvier, 1829, has priority. Fowler, 1905 (*Proc. Acad. nat. Sci. Philad.* **1904** : 767), however, mistakenly attributed the publication date "25 July 1827" to Lesson's name *Lemnisoma* and consequently sought to supplant *Gempylus* with *Lemnisoma* (at the same time erecting the family and subfamily LEMNISOMIDAE and LEMNISOMINAE). It is evident that Fowler must have consulted Sherborn & Woodward, 1901 (*Ann. Mag. nat. Hist.* (7) **7** : 391) for the dates of issue of the *Livraisons* of the Zoologie Section of the *Voy. Coquille* and must accidentally have noted the date of the *Livraison* embracing page 160 of volume 1 instead of that of the same page of volume 2. In fact from a second paper by Sherborn & Woodward (1906, *Ann. Mag. nat. Hist.* (7) **17** : 336) it is apparent that the name *Lemnisoma* dates not from 1827 nor even from 1830, as the title-page of the volume suggests, but from 12th November 1831. This name is therefore a junior subjective synonym of *Gempylus* Cuvier, 1829. Similarly the name *thyrsitoides* Lesson, as published in the combination *Lemnisoma thyrsitoides*, is a junior subjective synonym of *Gempylus serpens* Cuvier, 1829. The only authors who have followed Fowler's lead appear to be Jordan & Evermann, 1905 (*Bull. U.S. Fish. Comm.* **23** : 179), except that the *Zoological Record* for 1905 adopted the family name LEMNISOMIDAE. This was done, however, for the sole purpose of recording Fowler's paper. Fowler himself subsequently reverted to the use of the name *Gempylus serpens* Cuvier (see Fowler, 1928, *Mem. B.P. Bishop Mus.* **10** : 135 ; *id.*, 1936, *Hongkong Nat.* **7** : 75 ; *id.*, *Bull. amer. Mus. nat. Hist.* **70** : 636).

5. The nominal species *Gempylus serpens* Cuvier, 1829, was founded on an illustration of *Serpens marinus compressus lividus* Sloane, 1707 (*Voy. Jamaica* : pl. 1, fig. 2). Cuvier & Valenciennes, 1831 (*Hist. nat. Poiss.* **8** : 211) erected a second nominal species *Gempylus coluber* on what appears to have been the holotype of *Lemnisoma thyrsitoides* Lesson. Posterity has decided unanimously that the name *G. coluber* Cuvier & Valenciennes is a junior subjective synonym of *G. serpens*.

6. At this point it is desirable to consider the position of the generic name *Lucoscombrus* Van der Hoeven, 1858 (*Handb. Zool.* 2 : 161), which as originally published contained two nominal species : *Gempylus serpens* Cuvier, 1829 ; *Gempylus coluber* Cuvier & Valenciennes, 1831. No type species was designated by Van der Hoeven and none has been selected by any subsequent author. As has already been explained, the foregoing specific names are regarded by all authors as being subjective synonyms of one another. From a practical point of view the genus *Lucoscombrus* Van der Hoeven is therefore monotypical. In order finally to dispose of this name I now select *Gempylus serpens* Cuvier to be the type species of this genus, which thus becomes objectively identical with *Gempylus* Cuvier, 1829. (The work in which the name *Lucoscombrus* was published appeared in two editions, the first with a Dutch title, the second with a German title. The first edition appeared in 1828 and the second in 1855. The foregoing generic name would have priority over *Gempylus* Cuvier if it had appeared in the first as well as in the second edition. In order to clear up this point, the copy of the rare First Edition in the Library of the British Museum at Bloomsbury has been consulted. This examination shows that at the point where, if at all, this name would have appeared, i.e. in the discussion of the *Scomber* (2 : 237), Van der Hoeven treated *Gempylus* as a subgenus of *Scomber* and made no mention of the name *Lucoscombrus*<sup>1</sup>. This latter name ranks for priority therefore only from the Second Edition of 1855.)

7. In addition, there is a generic name, *Zyphothyca* Swainson, 1839 (*Hist. nat. Fishes* 2 : 174), which is a junior subjective synonym of *Gempylus* Cuvier, 1828, through having *Gempylus coluber* Cuvier & Valenciennes as its type species by monotypy. Though not required taxonomically, *Zyphothyca* Swainson is a nomenclatorially available name and accordingly no action in regard to it is called for on the part of the Commission.

8. At first the genus *Gempylus* was placed either in the family TRICHIURIDAE or the family SCOMBRIDAE. Goode & Bean, 1895 (*Oceanic Ichth.* : 193) were the first authors to erect a family-group taxon for *Gempylus*, for which they founded the GEMPYLINAE as a subfamily of the SCOMBRIDAE. Regan, 1909 (*Ann. Mag. nat. Hist.* (8) 3 : 70) up-graded the GEMPYLINAE to full familial status as the GEMPYLIDAE.

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<sup>1</sup> Further investigations undertaken at a later stage showed that the First Edition of Van der Hoeven's work was published in Paris and that the Part containing the name *Scomber* and associated names was not published until 1830. For more detailed particulars see paragraph 11 of the present *Opinion*.

9. It is thus apparent that *Gempylus* Cuvier has enjoyed almost universal acceptance since 1829, the subfamily GEMPYLINAE since 1895 and the family GEMPYLIDAE since 1909. It is desirable that this situation should be stabilised, the more so since the family GEMPYLIDAE includes fishes of considerable economic importance and with a growing literature.

10. I therefore ask the International Commission :—

- (1) to use its Plenary Powers for suppressing the under-mentioned names for the purposes of the Law of Priority but not for those of the Law of Homonymy :—
  - (a) the generic name *Acinacea* Bory de St. Vincent, 1804, and the emendation thereof *Acinaces* Agassiz (J.L.R.), 1846 ;
  - (b) the specific name *notha* Bory de St. Vincent, 1804, as published in the combination *Acinacea notha* ;
- (2) to place the under-mentioned generic name on the *Official List of Generic Names in Zoology* : *Gempylus* Cuvier (G.L.C.F.D.), 1829 (gender : masculine) (type species, by monotypy : *Gempylus serpens* Cuvier (G.L.C.F.D.), 1829) ;
- (3) to place the under-mentioned specific name on the *Official List of Specific Names in Zoology* : *serpens* Cuvier (G.L.C.F.D.), 1829, as published in the combination *Gempylus serpens* (specific name of type species of *Gempylus* Cuvier (G.L.C.F.D.), 1829) ;
- (4) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
  - (a) the generic names specified in (1)(a) above, as there suppressed under the Plenary Powers ;
  - (b) *Lucoscombrus* Van der Hoeven, 1858 (a junior objective synonym of *Gempylus* Cuvier, 1829) ;
- (5) to place the under-mentioned specific name on the *Official Index of Rejected and Invalid Specific Names in Zoology* : *notha* Bory de St. Vincent, 1804, as published in the combination *Acinacea notha*, and as suppressed under the Plenary Powers under (1)(a) above ;
- (6) to place the under-mentioned family-group name on the *Official List of Family-Group Names in Zoology* : GEMPYLINAE Goode & Bean, 1895 (type genus : *Gempylus* Cuvier (G.L.C.F.D.), 1829) ;

- (7) to place the under-mentioned family-group name on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* : ACINACEIDAE Berg, 1940 (type genus : *Acinacea* Bory de St. Vincent, 1804, a name suppressed under the Plenary Powers under (1)(a) above).

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt in March 1955 of Mr. Tucker's preliminary application, the question of the validation of the generic name *Gempylus* Cuvier, 1829, was allotted the Registered Number Z.N.(S.) 923.

**3. Publication of the present application :** The present application was sent to the printer on 23rd August 1955 and was published on 30th December 1955 in Part 9 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Tucker, 1955, *Bull. zool. Nomencl.* **11** : 285—288).

**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 issued on 30th December 1955 in Part 9 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Mr. Tucker's application was published) and (b) to the other prescribed serial publications. In addition such Notice was given also to four general zoological serial publications and to seven ento-

mological serials in Europe and America. Public Notice was given also to the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists.

**5. Comments received :** The publication of the present application in the *Bulletin of Zoological Nomenclature* and the issue of Public Notices (paragraph 4 above) regarding the possible use of the Plenary Powers elicited comments from two points of view, the first being concerned with the problems of ichthyological nomenclature directly raised in Mr. Tucker's application, the second with certain repercussions on nomenclature in the Order Coleoptera (Class Insecta) involved incidentally in the application submitted. Under the first of these heads notes of support were received from seven ichthyologists, all resident in the United States. The communications so received are reproduced in paragraphs 6 and 7 below. On the entomological implications a supplementary proposal was submitted by Mr. J. Balfour-Browne (*British Museum (Natural History), London*) in a paper which is reproduced in paragraph 8 of the present application. One specialist in the group of the Coleoptera immediately concerned later signified his support for Mr. Balfour-Browne's supplementary application. The letter so received is reproduced in paragraph 9 below. No objection either to the proposals relating to ichthyological nomenclature submitted by Mr. Tucker or to the proposals relating to coleopterological nomenclature submitted in Mr. Balfour-Browne's supplementary application were received from any source.

**6. Support for Mr. Tucker's proposals relating to the generic name "Gempylus" Cuvier, 1829 (Class Pisces), received from six members of the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists :** On 14th September 1956 Dr. W. I. Follett (*California Academy of Sciences, San Francisco, California, U.S.A.*), as Chairman of the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists, addressed the following letter to the Office of the Commission intimating his support and that of five other members of the above Committee for the proposals relating to the generic name *Gempylus* Cuvier, 1829, and associated

names (Class Pisces) submitted to the Commission by Mr. Denys W. Tucker in the present case (Follett (W.I.), Miller (R.R.), Peters (J.A.), Savage (J.M.), Wilimovsky (N.J.), & Smith (H.M.), 1956, *Bull. zool. Nomencl.* **12** : 315—316) :—

#### **View of the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists**

On 3rd June 1956, I requested the members of the committee on zoological nomenclature of the American Society of Ichthyologists and Herpetologists to send me their comments on Mr. Denys W. Tucker's application for use of the Plenary Powers to suppress the generic name *Acinacea* Bory de St. Vincent, 1804, and the specific name *notha* Bory de St. Vincent, 1804, for the purpose of making the generic name *Gempylus* Cuvier, 1829, and the name *serpens* Cuvier, 1829, the oldest available names for the genus and species concerned.

I can now report that the members of this Committee are unanimous in their support of Mr. Tucker's application.

*NOTE BY EDITOR : The following statements prepared by individual members of the Committee referred to above were communicated by its Chairman, Dr. W. I. Follett in his letter from which an extract of the opening portion has been given above.*

(i) By ROBERT RUSH MILLER

(*University of Michigan, Ann Arbor, Michigan, U.S.A.*)

I have read the application by Denys Tucker which you recently forwarded and find myself in full agreement with his proposal that the International Commission use its Plenary Powers as requested by him.

Indeed, I am most grateful to Mr. Tucker for going to the trouble and care to point out this situation and asking for a ruling from the Commission.

(ii) By JAMES A. PETERS

(*Brown University, Providence, Rhode Is., U.S.A.*)

I have read Mr. Denys W. Tucker's request to the International Commission carefully and feel that it would be in the best interests of stability in nomenclature to support his proposal. Therefore, I would be in favour of our committee sending a letter indicating our unanimous support of said proposal to the Commission.



## (iii) By DR. JAY M. SAVAGE

(*University of Southern California, Los Angeles, U.S.A.*)

In so far as I can determine from the material presented in the *Bulletin of Zoological Nomenclature*, I must say that I tend to favour Mr. Tucker's application for conservation of *Gempylus serpens*. If the ichthyological members of the Committee have some arguments to the contrary I would be interested in hearing them. Otherwise I would vote for the application by Tucker.

## (iv) By NORMAN J. WILIMOVSKY

(*Stanford University, Stanford, California, U.S.A.*)

In my opinion we should endorse the requests of Mr. Tucker contained on pages 287—288 of the *Bulletin of Zoological Nomenclature* in using the Plenary Powers in suppressing the *Acinacea notha* and placing *Gempylus serpens* on the *Official List* of accepted names.

## (v) By HOBART M. SMITH

(*University of Southern California, Los Angeles, U.S.A.*)

The application pertaining to *Acinacea notha* has my approval, at least on general principle, although I am not familiar with the precise situation.

## (vi) By DR. W. I. FOLLETT

(*California Academy of Sciences, San Francisco, U.S.A.*)

I have heretofore expressed grave doubt as to the advisability of substituting the frequently subjective criterion of usage for the objective and automatic criterion of priority. However, at the 1953 Copenhagen Congress, it was demonstrated that a substantial majority of our colleagues, particularly in Europe, favoured adherence to usage, and, pursuant to their mandate I myself participated in the unsuccessful attempts to formulate a so-called "principle of conservation". Mr. Tucker's application involves a situation that might well be governed by such a principle, had it been possible to devise one that was generally acceptable in full detail. Pending further efforts toward this end, in connection with the forthcoming draft of the revised Rules, it would appear that the Plenary Powers afford the only available means of attaining the result that is generally desired in the present case. In furtherance of a uniform philosophy of nomenclature, I therefore vote in favour of Mr. Tucker's carefully prepared application.

**7. Support for Mr. Tucker's proposals relating to the generic name "Gempylus" Cuvier, 1829 (Class Pisces) received from Carl L. Hubbs (Scripps Institution of Oceanography, University of California, La Jolla, California, U.S.A.):** On 5th October 1956 Dr. Carl L. Hubbs (*Scripps Institution of Oceanography, University of California, La Jolla, California, U.S.A.*) addressed the following letter to the Office of the Commission in support of the proposals relating to the generic name *Gempylus* Cuvier, 1829, and associated names (Class Pisces) submitted to the Commission by Mr. Denys W. Tucker in the present case (Hubbs (C.L.), 1956 (*Bull. zool. Nomencl.* **12** : 316)) :—

If it is not too late I wish to offer full support on each of the seven requests made by Denys W. Tucker. I have also been studying this group of fishes, and am rather familiar with the literature thereon. Mr. Tucker has correctly indicated the general usage, and I feel sure that nearly all ichthyologists will favour affirmative action of his requests. Stability in these cases is doubly desirable since the names he favours have gotten into general and popular literature to a considerable extent.

Mr. Tucker has expressed the cases involved in full detail and with sound logic.

**8. Supplementary application relating to the entomological issues raised in the present case submitted by J. Balfour-Browne (British Museum (Natural History), London):** On 15th May 1956 Mr. J. Balfour-Browne (*British Museum (Natural History), London*) submitted to the International Commission an application supplementary to that submitted by Mr. Tucker in regard to the generic name *Gempylus* Cuvier, 1829 (Class Pisces), in which he explained that in the Order Coleoptera (Class Insecta) the generic name *Acinaces* Gerstaecker, 1858, was in general use, notwithstanding that it was a junior homonym of the name *Acinaces* Agassiz, 1846, one of the names of genera in the Class Pisces, the suppression of which for the purposes of the Law of Priority but not for those of the Law of Homonymy had been asked for by Mr. Tucker. In order to provide a valid basis for the use of the name *Acinaces* Gerstaecker, 1858, in Coleoptera, Mr. Balfour-Browne asked that the application submitted by Mr. Tucker be varied so as to provide for the suppression of the

name *Acinaces* Agassiz, 1846, in the Class Pisces for the purposes of the Law of Homonymy as well as for those of the Law of Priority. The supplementary application so submitted was as follows (Balfour-Browne (J.), 1956, *Bull. zool. Nomencl.* **12** : 181—182) :—

**Proposal relating to the generic name “*Acinaces*” Agassiz, 1846 (Class Pisces) supplementary to Mr. D. W. Tucker’s application in regard thereto, designed to protect the generic name “*Acinaces*” Gerstaecker, 1858 (Class Insecta, Order Coleoptera)**

By J. BALFOUR-BROWNE, M.A.

(*British Museum (Natural History), London*)

My attention has been drawn to an application at present before the International Commission submitted by Mr. D. W. Tucker under the Reference Number Z.N.(S.) 923 for the purpose of validating the name *Gempylus* Cuvier, 1829 (Class Pisces) (1955, *Bull. zool. Nomencl.* **11** : 285—288). For the reasons set out below I am submitting the present supplementary application for the purpose of protecting the generic name *Acinaces* Gerstaecker, 1858 (*Monogr. Endomych.* : 178) (Class Insecta, Order Coleoptera), the future status of which is involved in Mr. Tucker’s application.

2. In the above application Mr. Tucker asks for the suppression by the International Commission of the generic name *Acinacea* Bory de St. Vincent, 1804, and its invalid emendation *Acinaces* Agassiz, 1846. At the same time he points out the latter name is a senior homonym of the name *Acinaces* Gerstaecker, 1858, in Coleoptera. Under a Directive issued by the International Congress of Zoology, where a name is suppressed solely for the purpose of permitting the usage of a later name for the same taxon, the suppression is to be limited to suppression for the purposes of the Law of Priority and is not to affect the status of the name concerned for the purposes of the Law of Homonymy. Accordingly, in the present case Mr. Tucker asks that the generic names proposed by Bory de St. Vincent and Agassiz respectively should be suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

3. It is recognised that the procedure prescribed by the Congress in this matter serves a valuable purpose by preventing a name which has been rejected in one group as a junior homonym of a name in some other group from being suddenly validated by the suppression of the senior homonym under the Commission’s Plenary Powers. In

the present case, however, the foregoing procedure would cause unnecessary name-changing in the Order Coleoptera in which the name *Acinaces* Gerstaecker, 1858, though (as shown by Mr. Tucker) invalid as a junior homonym of *Acinaces* Agassiz, 1846, has been in continuous use for nearly one hundred years.

4. The nominal genus *Acinaces* Gerstaecker, 1858, was proposed to include four previously undescribed species, of which one was *Acinaces lebasii* Gerstaecker, 1858 (: 179). No type species was designated in Gerstaecker and none was selected by any subsequent author until in 1953 (*in* Wytsman's *Genera Ins.* 210 : 85) Professor H. F. Strohecker of the University of Miami, the specialist in this group in the United States, so selected the species specified above. There is no junior synonym of *Acinaces* Gerstaecker and accordingly if that name were to remain a junior homonym of *Acinaces* Agassiz, it would be necessary not only to abandon the practice of a century but in addition to publish an entirely new name for this genus. It is accordingly proposed that the opportunity presented by Mr. Tucker's application should be taken for regularising the position of the generic name *Acinaces* Gerstaecker by expanding Mr. Tucker's proposal in regard to the name *Acinaces* Agassiz, 1846, so as to provide for its suppression for the purposes of the Law of Homonymy as well as for those of the Law of Priority.

5. The generic name *Acinaces* Gerstaecker has not been taken as the base for a family-group name and accordingly no family-group-name problem arises in this case. This genus is currently placed in the family ENDOMYCHIDAE.

6. For the reasons set forth above I now submit to the International Commission the following as an application supplementary to that already submitted by Mr. Tucker, namely :—

- (1) that the proposal for the suppression of the generic name *Acinaces* Agassiz, 1846, under the Commission's Plenary Powers submitted by Mr. D. W. Tucker in paragraph 10(1)(a) of his application Z.N.(S.) 923 (*Bull. zool. Nomencl.* 11 : 287) be extended to include such suppression for the purposes of the Law of Homonymy as well as suppression for the purposes of the Law of Priority ;
- (2) that the under-mentioned generic name be placed on the *Official List of Generic Names in Zoology* : *Acinaces* Gerstaecker, 1858 (gender : masculine) (type species, by selection by Strohecker (H.F.) (1953) : *Acinaces lebasii* Gerstaecker, 1858) ;

- (3) that the under-mentioned specific name be placed on the *Official List of Specific Names in Zoology*: *lebasii* Gerstaecker, 1858, as published in the combination *Acinaces lebasii* (specific name of type species of *Acinaces* Gerstaecker, 1858).

**9. Support for J. Balfour-Browne's supplementary application on the entomological implications of the application regarding the generic name "Gempylus" Cuvier, 1829 (Class Pisces) submitted in the present case :** On 30th April 1956 Dr. H. F. Strohecker (*University of Miami, Coral Gables, Florida, U.S.A.*) addressed the following letter to the Office of the Commission in support of the supplementary application on the entomological implications of the application regarding the generic name *Gempylus* Cuvier, 1829 (Class Pisces) submitted in the present case (Strohecker, 1956, *Bull. zool. Nomencl.* **12** : 190) :—

I wish to communicate to you my concurrence in Mr. J. Balfour-Browne's proposal that the generic name *Acinaces* Gerstaecker, 1858 (type species, by selection by myself (1953): *Acinaces lebasii* Gerstaecker, 1858) be placed on the *Official List of Generic Names in Zoology* and that the name *lebasii* Gerstaecker, as the specific name of the type species of the above genus, be placed on the *Official List of Specific Names in Zoology*.

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

**10. Issue of Voting Paper V.P.(57)26 :** On 15th March 1957 a Voting Paper (V.P.(57)26) was issued in which the Members of the Commission were invited to vote either for, or against, the proposal relating to the generic name *Gempylus* Cuvier, 1829, and associated problems on ichthyology as set out in Points (1) to (7) in paragraph 10 on pages 287—288 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 *Opinion*] as supplemented by the entomological proposals set out in Points (1) to (3) in paragraph 6 on page 182 of Volume 12 of the *Bulletin of Zoological Nomenclature* [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 8 of the present *Opinion*].

**11. Report by the Secretary on the date of publication of the work by J. van der Hoeven entitled "Handboek der Dierkunde" with special reference to the date of publication in that work of the generic name "Gempylus":** During the Prescribed Voting Period in respect of Voting Paper V.P.(57)26 the attention of the Secretary was drawn by Professor J. Chester Bradley to a passage in paragraph 6 of the application submitted by Mr. Tucker which appeared to imply that the name *Gempylus* had been employed by J. van der Hoeven in his *Handboek der Dierkunde* in 1828, i.e. a year earlier than the date on which it had been published by Cuvier. Immediate enquiries were instituted in regard to this matter by the Office of the Commission, since, if in fact the name *Gempylus* had been published by van der Hoeven before it had been published by Cuvier, some recasting of the proposals then before the Commission would have been required. Fortunately, however, the investigations so undertaken clearly established that the portion of van der Hoeven's *Handboek* containing the name *Gempylus* was not published until after that name had been published by Cuvier. Accordingly, no modification in the proposals submitted in this matter was called for. In order, however, to obviate the risk of any subsequent misunderstandings in regard to the foregoing matter the Secretary on 21st June 1957 executed the following Minute setting out in detail the results of the investigation carried out and gave directions that the Minute so executed be included in the *Opinion* dealing with the present case. The text of the foregoing Minute is as follows:—

**Report on the date of publication of J. van der Hoeven's "Handboek der Dierkunde", with special reference to the date of publication in that work of the generic name "Gempylus" (Class Pisces)**

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

(Secretary to the International Commission on Zoological Nomenclature)

The purpose of the present Minute is to place on record the date of publication of the work by J. van der Hoeven entitled *Handboek der*

*Dierkunde*, with special reference to the date of publication in it of the generic name *Gempylus* (Class Pisces).

2. The question of the possible relevance of the above work to the problems involved in the present case arose during the discussions which preceded the submission to the International Commission of Mr. Denys W. Tucker's application. In a Second Edition of the above work published in 1858 under the German title *Handbuch der Zoologie* van der Hoeven introduced a new generic name *Lucoscombrus*. That name, as so published, was, Mr. Tucker then explained, a junior synonym of the generic name *Gempylus* Cuvier, but, if van der Hoeven had included this name in the original Dutch edition a question of priority as between the names *Lucoscombrus* van der Hoeven and *Gempylus* Cuvier would arise, for the Dutch edition of van der Hoeven's book was recorded in the *Catalogue of the Library of the British Museum (Natural History)* as having been published in the period 1828—1833. That edition is lacking in the above library but fortunately there is a copy in the library of the British Museum at Bloomsbury. It was accordingly arranged that this copy should be examined by the Office of the Commission. That examination showed that in this Dutch edition van der Hoeven did not make use of the generic name *Lucoscombrus* which accordingly ranks for priority only from the German edition of 1858. This information, which completely disposed of any threat to *Gempylus* from the name *Lucoscombrus*, was communicated to Mr. Tucker, by whom it was incorporated in paragraph 6 of his application to the Commission.

3. Unfortunately, it was not recognised at the time that there would still remain a problem in relation to the authorship to be attributed to the generic name *Gempylus* if the relevant portion of van der Hoeven's *Handboek* was published as early as 1828, for in that event that name would take priority over the same name as published in Cuvier in 1829. My attention was drawn to this aspect of the case by Professor J. Chester Bradley during the voting on Voting Paper V.P.(57)26. Immediately upon the receipt of Professor Bradley's communication I investigated the point raised as a matter of urgency, for, if in fact the name *Gempylus* had been published by van der Hoeven before it was published by Cuvier, the proposals submitted in the present case would have needed remodelling in certain respects.

4. A further investigation of the information derivable from the copy of van der Hoeven's *Handboek* in the library of the British Museum at Bloomsbury showed that publication actually started in 1827, i.e. one

year earlier than the commencing date cited in the *Catalogue of the Library of the British Museum (Natural History)* (paragraph 2 above). Of the two Volumes in which this work was published the first dealt with the Invertebrates, the second with the Vertebrates. Each volume was published in two Parts, which appeared on different dates. The two Parts of Volume 1 (Invertebrates) were published in 1827 and 1828 respectively; the two Parts of Volume 2 (Vertebrates) were published in 1830 and 1833 respectively. Part 1 of Volume 2, which comprised the first 350 pages of that volume, included the treatment of the Class Pisces. It is in this Part that van der Hoeven dealt with the genus *Scomber* (: 237) and, as he considered, its subgenus *Gempylus* (: 238). We see therefore that van der Hoeven's treatment of the name *Gempylus* dates only from 1830 and is thus a year later in date than the publication of that name by Cuvier. This generic name is therefore correctly attributable to Cuvier, 1829.

5. In the light of the investigation described above, it is seen that no adjustment is required in the actual proposals submitted for decision with Voting Paper V.P.(57)26. The particulars relating to van der Hoeven's *Handbook der Dierkunde* in paragraph 6 of the application are, however, incomplete and in part, incorrect. Accordingly, in order to obviate any misunderstandings which might otherwise arise, I now, as Secretary, direct that the present Minute be incorporated in the *Opinion* to be prepared giving effect to the decision taken by the Commission on the foregoing Voting Paper.

**12. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 15th June 1957.

**13. Particulars of the Voting on Voting Paper V.P.(57)26 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)26 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) :*



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

(b) *Negative Votes* :

None ;

(c) *Voting Papers not returned, two (2)* :

Miller<sup>2</sup> ; Hankó.

**14. Declaration of Result of Vote :** On 16th June 1957 Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)26, signed a Certificate that the Votes cast were as set out in paragraph 13 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.

**15. Discovery of an older bibliographical reference for the family-group name based on the generic name "Acinacea" Bory de St. Vincent, 1804 (Class Pisces) :** During a final review of the documentation relating to the present case in anticipation of the preparation of the Ruling to be given in the *Opinion* embodying the decision taken by the International Commission by its vote on Voting Paper V.P.(57)26 particulars came to light of an earlier publication of a family-group name based upon the generic name *Acinacea* Bory de St. Vincent, 1804 (Class Pisces), than that by Berg, 1940, previously believed to be the oldest reference for such a name. The existence of this name was

<sup>2</sup> After the close of the Prescribed Voting Period a late affirmative vote was received from Commissioner Miller.

brought to the notice of the Office of the Commission by Mr. Tucker, the specialist by whom the portion of the application in the present case relating to the generic name *Gempylus* Cuvier, 1829, had been placed before the Commission. The earlier name so discovered had been published by A. R. McCulloch in 1929 in a paper entitled "A Check-list of the Fishes recorded from Australia, Part II". The reference for this name is McCulloch (A.R.), 1929, *Mem. Aust. Mus.* 5 : 258. In the circumstances so disclosed Mr. Hemming, as Secretary, on 26th June 1957 executed a Minute directing that in the Ruling to be prepared for the *Opinion* giving effect to the decision taken by the International Commission by its vote on the Voting Paper cited above, the reference ACINACEIDAE McCulloch, 1929, be substituted for the reference ACINACEIDAE Berg, 1940, as the reference to the place where a family-group name based upon the generic name *Acinacea* Bory de St. Vincent, 1804, was first published.

**16. Preparation of the Ruling given in the present "Opinion" :** On 27th June 1957 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.(57)26, subject to the correction of the bibliographical reference for the family-group name ACINACEIDAE, as specified in the Minute executed by the Secretary on 26th June 1957 (paragraph 15 above).

**17. 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* :—

*Acinacea* Bory de St. Vincent, 1804, *Voy. Isles Afrique* 1 : 93

*Acinaces* Agassiz (J.L.R.), 1846, *Nomencl. zool. Index univ.* : 4

*Acinaces* Gerstaecker, 1858, *Monogr. Endomych.* : 178

*Gempylus* Cuvier (G.L.C.F.D.), 1829, *Règne Anim.* (ed. 2) 2 : 200

- lebasii*, *Acinaces*, Gerstaecker, 1858, *Monogr. Endomych.* : 179
- Lucoscombrus* van der Hoeven (J.), 1858, *Handb. Zool.* **2** : 161
- notha*, *Acinacea*, Bory de St. Vincent, 1804, *Voy. Isles Afrique*  
**1** : 93
- serpens*, *Gempylus*, Cuvier (G.L.C.F.D.), 1829, *Règne Anim.* (ed. 2)  
**2** : 200

**18.** The following is the reference for the selection of a type species for the genus *Acinaces* Gerstaecker, 1858, specified in the Ruling given in the present *Opinion* :—

Strohecker (H.F.), 1953, in Wytsman's *Gen. Ins.* **210** : 85

**19.** No family-group-name problem was involved in the entomological section of the case dealt with in the present *Opinion*. The corresponding problems arising in connection with the ichthyological section of this case were dealt with in the application submitted, that information, as regards one of the names concerned being supplemented by the information specified in paragraph 15 of the present *Opinion*. The following are the original references for the family-group names placed by the Ruling given in the present *Opinion* on the *Official List* and *Official Index* respectively of names of taxa belonging to the family-group category :—

ACINACEIDAE McCulloch (A.R.), 1929, *Mem. Aust. Mus.* **5** : 258

GEMPYLINAE Goode & Bean, 1895, *Oceanic Ichth.* : 193

**20.** 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.

21. The present *Opinion* shall be known as *Opinion* Four Hundred and Eighty-Seven (487) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Seventh day of June, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

ref

# 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 17. Part 10. Pp. 143—154

## OPINION 488

Determination of the status under Rule (g) in Article 30 of the *Règles* of the action taken by Curtis (J.) in the Second Edition of the work entitled *A Guide to an Arrangement of British Insects* published in 1837



LONDON :

Printed by Order of the International Trust for  
Zoological Nomenclature

and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office

41, Queen's Gate, London, S.W.7

1957

**Price Eight Shillings**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 488

### 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)

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Professor Harold E. VOKES (*University of Tulane, Department of Geology, New Orleans,  
Louisiana, 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 488

**DETERMINATION OF THE STATUS UNDER RULE (g)  
IN ARTICLE 30 OF THE "RÈGLES" OF THE ACTION  
TAKEN BY CURTIS (J.) IN THE SECOND EDITION  
OF THE WORK ENTITLED "A GUIDE TO AN  
ARRANGEMENT OF BRITISH INSECTS"  
PUBLISHED IN 1837**

**RULING** :—(1) It is hereby ruled that in the Second Edition of the work entitled *A Guide to an Arrangement of British Insects* . . . published in 1837 Curtis (J.) did not select type species for the genera there enumerated.

(2) The title of the under-mentioned work is hereby placed on the *Official List of Works Approved as Available for Zoological Nomenclature* with the Title No. 31 :—

Curtis (J.), 1837, *A Guide to an Arrangement of British Insects ; being a Catalogue of all the named species hitherto discovered in Great Britain and Ireland*, (Ed. 2), the entry so made to be endorsed as directed in (1) above.

### I. THE STATEMENT OF THE CASE

On 22nd July 1947, Dr. Curtis W. Sabrosky (*U.S. Department of Agriculture, Agricultural Research Service, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A.*) submitted a preliminary application on behalf of himself and Dr. R. E. Blackwelder (*United States National Museum, Washington, D.C., U.S.A.*) in which the International Commission on Zoological

Nomenclature was asked to give a Ruling on whether Curtis (J.) in the Second Edition of his work published in 1837 entitled *A Guide to an Arrangement of British Insects* was to be construed as having selected type species for the genera enumerated therein. As a result of ensuing correspondence between the applicants concerned and the Secretary to the Commission the following revised application was submitted on 25th January 1955 :—

**Proposed rejection for the purposes of Rule (g) in Article 30 of the second edition of Curtis (J.), 1837, "A Guide to an Arrangement of British Insects" or alternatively the proposed suppression of the above work under the Plenary Powers for the foregoing purposes**

By C. W. SABROSKY

(*U.S. Department of Agriculture, Agricultural Research Service,  
Entomology Research Branch, Washington, D.C., U.S.A.*)

and

RICHARD E. BLACKWELDER

(*United States National Museum, Washington, D.C., U.S.A.*)

In 1829 John Curtis published in London a small book entitled *A Guide to an Arrangement of British Insects ; being a Catalogue of all the named species hitherto discovered in Great Britain and Ireland*. The book was intended to serve as an exchange list and as an index to Curtis' large *British Entomology*. In 1837 a second edition appeared, revised and enlarged. Perhaps because of their checklist nature, these works have never attracted much attention from entomologists and are infrequently referred to in synonymies and bibliographies.

2. Some time ago it was noticed that the preface to the second edition includes a passage which might be construed to indicate that in it Curtis selected type species for a number of genera. A letter received from a worker in another country shows that others are aware of this action by Curtis. It appears important to examine the case publicly in order to avoid the risk of opposing usages.

3. On pages v and vi of the Preface appears the following statement :—

It need scarcely be added that the generic and specific names without numbers are considered as synonyms, although many of the former



which intersect long genera will most probably be eventually adopted, and it may often happen that all the species following such generic names would not be considered by the author who proposed the name as belonging to his group, but the one immediately following is always a typical species . . .

These "synonyms" occur throughout the work but do not for the most part appear to involve genera of great importance either because of size or nomenclatorial considerations.

4. In spite of the indecisive wording, it is perhaps possible to look upon these first-species placements as definite selections of type species, particularly because Curtis is known to have used the concept of type species in other works and might be presumed to have applied it to this work as well. However, in his other works, his manner of selecting type species is unambiguous and unquestionably acceptable. There is also another difference that seems to be significant. In his *British Entomology* (1824—1840) Curtis selected a type species for each of the seven hundred and seventy genera found in Britain, but the type species so selected is not always a British species and was not always available to Curtis. In the *Guide*, on the other hand, the first species cited is in each case British, and the first species following the generic name is sometimes not the one that Curtis himself had previously selected as the type species. There appears to be good reason to believe, therefore, that Curtis knew and used the type-species concept, but that in the *Guide*, a simple checklist, he meant exactly what he said, namely, that the first species "is always a typical species" but that this species was not necessarily the type species of the genus.

5. There are thus two facts which together seem sufficient to refute the claim that type species were selected in the edition of the *Guide* published in 1837. These are :—(1) the indecisive wording, which is different from Curtis' regular practice in his other works, and (2) the difference in treatment between the *Guide* and the *British Entomology*, the latter of which contains unquestionably definite selections of type species.

6. It appears to the writers that Curtis' action in the Second Edition of his *Guide* cannot be considered as amounting to type selections, rigidly construed as provided in Article 30. The expression "a typical species" appears to indicate an illustration or example of a genus and not *the* type species of the genus. However, in the event of the Commission taking the view that Curtis' action in this matter ought under a strict application of the *Règles*, to be accepted as amounting to type selections, it is asked to suppress the Second Edition of Curtis' *Guide* under its Plenary Powers for the purposes of Article 30 and, having done so, to place on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* the title of this work, as suppressed to the extent indicated above.

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt in 1947 of the preliminary application by Dr. Sabrosky and Dr. Blackwelder, the question of the interpretation of the Second Edition of the work by Curtis (J.) entitled *A Guide to an Arrangement of British Insects* published in 1837 was allotted the Registered Number Z.N.(S.) 298.

**3. Report submitted by the Secretary in August 1955 :** On 23rd August 1955 the Secretary submitted to the International Commission the following Report in which he drew attention to the possibility of dealing with the application submitted in the present case by either of two alternative methods, one of which would involve the use of the Commission's Plenary Powers :—

**Support for the Sabrosky/Blackwelder proposal that the second (1837) edition of Curtis' " Guide to an Arrangement of British Insects " be rejected for the purposes of Article 30**

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

(Secretary to the International Commission on Zoological Nomenclature)

(Note dated 23rd August 1955)

Two issues which require separate consideration arise on the application in regard to the status under Article 30 of the Second Edition of Curtis' *Guide to an Arrangement of British Insects* published in 1837 submitted by Dr. Sabrosky and Dr. Blackwelder. These are :— (1) Did Curtis in the above work make type selections for genera within the meaning of Article 30 ? (2) What action on the part of the Commission is required to obviate the risk of these type selections upsetting established usage for the generic names concerned ?

2. On the first of these questions, I should like strongly to support the view expressed by Drs. Sabrosky and Blackwelder that in this work Curtis did no more than what he said he was going to do, namely, cite " a typical species " and that it was no part of his intention to select type species for genera in his little *Guide*. When in the early thirties I was preparing my *Generic Names of the Holarctic Butterflies*, I was very much struck by the clear and unequivocal manner in which

Curtis selected type species for genera in his *British Entomology*, for in this matter he was far ahead of almost all of his contemporaries. In these circumstances it appears to me to be incredible that, if in the *Guide* of 1837 he had intended to select type species, he should have employed the ambiguous phrase "a typical species" in place of the clear phraseology used by him in his *British Entomology*. It is all the more incredible that at the date in question (1837) he should have acted in this manner, when we recall that at the time his *British Entomology* was still in process of being published, the last instalment not having been published until 1840, three years after the appearance of the Second Edition of the *Guide*.

3. The problem in the present case appears to me to be very similar to that presented by Lamarck's *Système des Animaux sans Vertèbres* of 1801, for in that work Lamarck cited for each genus a typical species without clearly stating that that species was regarded by him as the type species of that genus, just as in his *Guide* of 1837 Curtis cited "a typical species" without stating that he was selecting that species to be the type species. In the case of Lamarck's *Système* the Commission in its *Opinion* 79 (1924, *Smithson. misc. Coll.* 73 (No. 2) : 15—16) gave a Ruling that the above work by Lamarck "is not to be accepted as designation of type species". This is the course which, in effect, Drs. Sabrosky and Blackwelder recommend should be adopted in the present case, a recommendation which I strongly support. If on the other hand the view were to be taken that despite the similarities noted above, the *Guide* should be regarded as differing in this respect from the *Système*, I would strongly support the alternative proposal submitted by the above specialists, namely, that the Plenary Powers should be used to disqualify the *Guide* of 1837 for the purposes of Article 30, for, as was clearly stressed in the discussions on the need for promoting stability in zoological nomenclature held at Copenhagen in 1953, changes in the type species of genera resulting from the discovery of long-overlooked type selections are just as objectionable as the sinking of well-known names as synonyms of long-overlooked names of older date. Indeed, in some respects changes of the first of these classes are even more objectionable than those of the second class, for the element of confusion is greater when an established name has to be used in a new and unaccustomed sense than when an established and familiar name is sunk in synonymy.

4. In order to provide for the possibility that the view might be taken that in the *Guide* of 1837 Curtis did select type species for genera, the applicants in the present case, on my suggestion, inserted in their proposal a request that, if the foregoing view were to be taken, the Commission should use its Plenary Powers to prevent established type selections from being disturbed on this account. By this means the Plenary Powers machinery has been set in motion and will be available in the event of its use being considered necessary to secure the end desired.

5. There are thus two alternatives now laid before the Commission for consideration in this case. These are as follows :—

#### Alternative "A"

Under this Alternative the Commission would :—

- (1) give a Ruling that in the Second Edition of the work entitled *A Guide to an Arrangement of British Insects* published in 1837 Curtis (J.) did not select type species for the genera there enumerated ;
- (2) place the title of the above work on the *Official List of Works Approved as Available for Zoological Nomenclature*, with an endorsement in the terms of (1) above.

#### Alternative "B"

Under this Alternative the Commission would :—

- (1) use its Plenary Powers to suppress for the purposes of Rule (g) in Article 30 all entries in the Second Edition of the work by Curtis (J.) published in 1837 under the title *A Guide to an Arrangement of British Insects* ;
- (2) place the title of the foregoing work :—
  - (a) on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* with an endorsement as in (1) above ;
  - (b) on the *Official List of Works Approved as Available for Zoological Nomenclature*, with an endorsement excepting from the above entry the portion suppressed under the Plenary Powers under (1) above.

For the reasons explained in their application Drs. Sabrosky and Blackwelder favour Alternative "A" and I fully share their view.

**4. Publication of the present application :** The present application and the Secretary's Report thereon were sent to the printer on 23rd August 1955 and were published on 13th April 1956 in Part 12 of Volume 9 of the *Bulletin of Zoological Nomenclature*, the delay in publication being due to a dispute in the London printing trade in the opening months of 1956 (Sabrosky & Blackwelder, 1956, *Bull. zool. Nomencl.* **9** : 353—354 ; Hemming, 1956, *ibid.* **9** : 355—356).

**5. Issue of Public Notices :** In the form in which the present application was submitted by Dr. Sabrosky and Dr. Blackwelder, the use of the Commission's Plenary Powers was not involved. At the time of the publication of this application it was decided however to give Public Notice of the possible use of the foregoing Powers in order to place the Commission in a position to vote on the second of the alternative methods of dealing with this case set out in the Report submitted by the Secretary (paragraph 3 above). 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 13th April 1956 (a) in Part 12 of Volume 9 of the *Bulletin of Zoological Nomenclature* (the Part in which the application by Dr. Sabrosky and Dr. Blackwelder and the Report by the Secretary were published) and (b) to the other prescribed serial publications. In addition such Notice was given also to four general zoological serial publications and to eight entomological serials in Europe and America.

**6. No objection received :** No objection to the grant of approval to the object sought in the present application was received from any source.

**7. No support received for use of the Plenary Powers in the present case :** During the Prescribed Waiting Period of Six Months following the publication in the *Bulletin of Zoological Nomenclature* of the documents relating to the present case no support was received for the second of the alternative solutions which had been suggested (Alternative " B "), namely, the solution involving the use of the Plenary Powers, that Alternative being one which had no relevance in the absence of any objection to Alternative "A".

**8. Report submitted by the Secretary in September 1956 :** At the time when it was necessary for a Voting Paper to be submitted in relation to the present case, the Secretary prepared the following

brief Report to be laid before the Commission with the Voting Paper in this case :—

*Alternative Courses possible* : In a Report published concurrently with the present application (*Bull.* 9 : 355—356) the Secretary has pointed out that it would be possible to deal with this case without using the Plenary Powers by giving a ruling that in the *Guide* Curtis did not select type species for genera (Alternative “A”) instead of by using those Powers to suppress the *Guide* (Alternative “B”). The first of these courses is supported by the applicants (Sabrosky & Blackwelder) as well as by the Secretary. No support has been received for Alternative “B”, which is therefore now withdrawn. Accordingly, the Commission is now asked to vote directly upon the solution styled “Alternative ‘A’” on page 356 of Volume 9 of the *Bulletin*.

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

**9. Issue of Voting Paper V.P.(56)36** : On 1st October 1956 a Voting Paper (V.P.(56)36) was issued in which the Members of the Commission were invited to vote either for, or against, “the proposal relating to the second (1837) edition of Curtis’ *A Guide to an Arrangement of British Insects* set out as Alternative ‘A’” in paragraph 5 on page 356 of Volume 9 of the *Bulletin of Zoological Nomenclature*” [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 3 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 1st January 1957.

**11. Particulars of the Voting on Voting Paper V.P.(56)36 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)36 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) :*

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

(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.

**12. Declaration of Result of Vote :** On 2nd January 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)36, 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 28th June 1957, 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)36.

**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 Eighty-Eight (488) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Eighth day of June, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**



Key

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

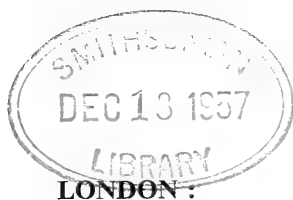
*Edited by*

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

VOLUME 17. Part 11. Pp. 155—178

## OPINION 489

Validation under the Plenary Powers of the generic name  
*Turbinella* Lamarck, 1799 (Class Gastropoda), as the  
name for the Sacred Chank Shell of India



Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 489

### 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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 489

### VALIDATION UNDER THE PLENARY POWERS OF THE GENERIC NAME "TURBINELLA" LAMARCK, 1799 (CLASS GASTROPODA), AS THE NAME FOR THE SACRED CHANK SHELL OF INDIA

**RULING :—**(1) Under the Plenary Powers the generic name *Xancus* [Röding], 1798, 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 Number 1228 :—

*Turbinella* Lamarck, 1799, as validated under the Plenary Powers in (1) above (gender : feminine) (type species, by monotypy : *Voluta pyrum* Linnaeus, 1767) ;

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name Number 1434 :—

*pyrum* Linnaeus, 1767, as published in the combination *Voluta pyrum* (specific name of type species of *Turbinella* Lamarck, 1799).

(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) *Turbinella* Bory de St. Vincent, [1827] (a junior homonym of *Turbinella* Lamarck, 1799) (Name No. 1053) ;
- (b) *Turbinellum* Webb, 1948 (an Erroneous Subsequent Spelling for *Turbinella* Lamarck, 1799) (Name No. 1054) ;
- (c) *Turbinellus* Lamarck, 1801 (an Invalid Emendation of *Turbinella* Lamarck, 1799) (Name No. 1055) ;
- (d) *Turbonella* Webb, 1948 (an Erroneous Subsequent Spelling for *Turbinella* Lamarck, 1799) (Name No. 1056) ;
- (e) *Xancus* [Röding], 1798, as suppressed under the Plenary Powers in (1) above (Name No. 1057).

(5) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name Number 195 :—

TURBINELLIDAE Swainson, 1840 (type genus : *Turbinella* Lamarck, 1799).

(6) 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 229 :—

XANCIDAE Woodring, 1928 (type genus : *Xancus* [Röding], 1798) (invalid (a) under *Declaration 20*

because name of type genus suppressed under the Plenary Powers (in (1) above), and (b) because it is a junior objective synonym of TURBINELLIDAE Swainson, 1840).

## I. THE STATEMENT OF THE CASE

In the course of correspondence regarding the decision given in *Opinion* 96 that the anonymous catalogue published in 1798 under the title *Museum Boltenianum* satisfied the requirements of the *Règles* Dr. Joshua L. Baily, Jr. (*San Diego, California, U.S.A.*) in a letter dated 14th May 1947 raised with the Office of the Commission the question of the possible use of the Plenary Powers for the purpose of validating, as the name for the Sacred Chank Shell of India, the generic name *Turbinella* Lamarck, 1799, a name which had been invalidated as a junior objective synonym of *Xancus* [Röding], 1798, as the result of the decision taken in the foregoing *Opinion*. After further correspondence with the Secretary, Dr. Baily on 21st November 1955 submitted to the International Commission the following formal application for the validation of the generic name *Turbinella* Lamarck :—

**Proposed use of the Plenary Powers to preserve the generic name  
“*Turbinella*” Lamarck, 1799, as the name for the Sacred Chank  
Shell of India**

By JOSHUA L. BAILY, Jr.

(*San Diego, California, U.S.A.*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to preserve the well-known name *Turbinella* Lamarck, 1799 (*Mém. Soc. Hist. nat. Paris* 1799 : 73) as the name for the Sacred Chank Shell of India.

2. The name *Turbinella* Lamarck, of which the Chank Shell *Voluta pyrum* Linnaeus, 1767 (*Syst. Nat.* (ed. 12) 1(2) : 1195) is type species by monotypy, was in uninterrupted use for well over one hundred years. It only became invalidated in 1926 as the accidental byproduct of the publication in that year of the Commission's *Opinion* 96, recognising as being available for nomenclatorial purposes the catalogue entitled *Museum Boltenianum* anonymously published in 1798. This unfortunate work, the acceptance of which by the Commission caused much widespread confusion and name-changing, contained the generic name *Xancus* [Röding], 1798 (*Mus. bolten.* 2 : 134). The genus *Xancus* so established contained a number of species from which in 1906 (*J. Conch.* 11 : 296) Dall, in anticipation of the recognition of the availability of the *Museum Boltenianum*, had selected *Voluta pyrum* Linnaeus to be the type species of this genus. Thus, as matters now stand, the historic name *Turbinella* Lamarck is a junior objective synonym of *Xancus* [Röding].

3. The names in the *Museum Boltenianum* were devised by Bolten but the "indications" which provide those names with the status of availability were supplied by Röding, to whom therefore these names should be attributed (see Hemming, 1955, *Bull. zool. Nomencl.* 11 : 56—57). In coining the name *Xancus*, Bolten no doubt deliberately Latinised the vernacular name "Chank" habitually applied to this species, by adding the termination "-us" and using a different initial letter. In this case the "x" is not the Latin letter which has the sound "ks" but the Greek letter Chi which has the same form and on being transliterated into Latin is normally written as "ch". Bolten's idea was quite ingenious but etymologically the name so formed is objectionable because it comes from roots of several languages, the name itself being of Cingalese origin, while the prefix is Greek and the suffix Latin.

4. The fact that purists will find the name objectionable is however the least important of the reasons for asking for it to be suppressed. The Chank Shell is found in the Eastern seas in the area where the Indian and Pacific Oceans come together. In this area there are important Chank Fisheries which are of direct interest to at least three Sovereign States. Each of these States has its own ordinances and regulations for governing these fisheries, and it is Lamarck's name *Turbinella* which is used in all of these.

5. In addition to the legal and commercial documents in which the name *Turbinella* habitually appears but in which the name *Xancus* is never found, there is a great mass of archaeological and ethnological literature relating to the religious and other uses of the Chank Shell. In Hindoo mythology the God Vishnu underwent several incarnations and in one of these he assumed the form of a Chank Shell in order

that he might go under the waters of the ocean to recover the Vedas which had been stolen and hidden under the sea. In all the literature dealing with this group of subjects it is the name *Turbinella* which is used as the name for the Chank Shell and not the name *Xancus*. The Chank Shell is also of importance in Hindoo religion and medicine owing to the practice of the Hindoo priesthood in administering medicine from reversed (sinistral) specimens of the Chank Shell. These sinistral Chank Shells are considered too sacred for any other use and have in consequence entered widely into Hindoo folk lore. In this literature also it is the name *Turbinella* which has always been used for the Chank Shell.

6. The present is therefore pre-eminently one of those cases where long-established nomenclature ought not to be overturned in compliance with narrow technical requirements of a nomenclatorial kind. Such changes in names are open to strong objection, even when viewed from a strictly zoological angle, but these objections become insuperable when in addition to leading to the disappearance of some well-known zoological name (such as *Turbinella*), such changes lead to serious confusion in fields far removed from actual zoology. Indeed, it is such changes, when permitted in the past, which have done so much to discredit zoological nomenclature and zoologists generally.

7. For the reasons set forth above I accordingly ask that the Commission should validate the name *Turbinella* Lamarck by suppressing its senior objective synonym *Xancus* [Röding], 1798. Even if these cogent reasons had not been present, I should still have considered necessary the action now recommended, for the name *Turbinella* was taken as the base for a family-name TURBINELLIDAE (Swainson, 1840, *Treatise Malac.* (Lardner's *Cab. Cyclop.*) : 75) well over a hundred years ago. I consider it important that this name should not be replaced by the virtually unknown name XANCIDAE Johnson, 1934 (*Proc. Boston Soc. nat. Hist.* 40(1) : 128).

8. The following are the proposals which are therefore now submitted to the International Commission on Zoological Nomenclature, namely that it should :—

- (1) use its Plenary Powers to suppress the generic name *Xancus* [Röding], 1798, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (2) place the under-mentioned name on the *Official List of Generic Names in Zoology* : *Turbinella* Lamarck, 1799 (gender : feminine) (type species, by monotypy : *Voluta pyrum* Linnaeus, 1767) ;

- (3) place the under-mentioned name on the *Official List of Specific Names in Zoology* : *pyrum* Linnaeus, 1767, as published in the combination *Voluta pyrum* (specific name of type species of *Turbinella* Lamarck, 1799) ;
- (4) place the under-mentioned name on the *Official Index of Rejected and Invalid Generic Names in Zoology* : *Xancus* [Röding], 1798, as suppressed under the Plenary Powers under (1) above ;
- (5) place the under-mentioned name on the *Official List of Family-Group Names in Zoology* : TURBINELLIDAE Swainson, 1840 (type genus : *Turbinella* Lamarck, 1799) ;
- (6) place the under-mentioned name on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* : XANCIDAE Johnson, 1934 (type genus : *Xancus* [Röding], 1798).

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt in 1947 of the preliminary communication from Dr. Joshua L. Baily, Jr., the question of the validation of the generic name *Turbinella* Lamarck, 1799, as the name for the Sacred Chank Shell of India was allotted the Registered Number Z.N.(S.) 383.

**3. Publication of the present application :** The present application was sent to the printer on 30th November 1955 and was published on 9th May 1956 in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Baily, 1956, *Bull. zool. Nomencl.* **11** : 330—332).

**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 9th May 1956 (a) in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Baily's application



was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general zoological serial publications and to two specialist serials.

**5. Comments Received :** Two classes of consideration were involved in the present case, namely (a) those affecting taxonomic practice and (b) those affecting anthropologists, social historians and prehistorians. Under the first of these heads eight communications signed by eleven specialists were received during the Prescribed Six-Month Waiting Period following the publication of the present application in the *Bulletin of Zoological Nomenclature* and prior to the submission to the Commission of a Voting Paper relating to this case. The authors of one half of these communications (four specialists) supported the present application, while those of the other half (seven specialists) were opposed to the action recommended by the applicant. After the close of the Prescribed Six-Month Waiting Period and the submission of a Voting Paper to the Commission, one further communication was received. This was from a specialist who was opposed to the action recommended in this case. Under the second of the heads indicated above, a communication was received from one Institution. The body concerned supported the application submitted by Dr. Baily in the present case. The communications so received are reproduced in the immediately following paragraphs.

**6. Support on taxonomic grounds received from Carl L. Hubbs (University of California, La Jolla, California, U.S.A.) :** On 10th August 1956 Professor Carl L. Hubbs (*University of California, La Jolla, California, U.S.A.*) addressed the following letter to the Office of the Commission in support of the present case on taxonomic grounds (Hubbs, 1956, *Bull. zool. Nomencl.* **12** : 251):—

I hereby express approval of Dr. Joshua L. Baily Jr.'s proposal for the preservation of the long established generic name *Turbinella* and family name TURBINELLIDAE, and for the suppression of the names *Xancus* and XANCIDAE. This proposal seems well substantiated and is quite in line with the spirit and letter of the Copenhagen Colloquium.

**7. Support on taxonomic grounds received from Albert L. Baily, Jr. (Westchester, Pennsylvania, U.S.A.) :** On 10th September 1956 Dr. Albert L. Baily, Jr. (*Westchester, Pennsylvania, U.S.A.*)

addressed the following letter to the Office of the Commission in support of the present case on taxonomic grounds :—

You have before you an application (Z.N.(S.) 383) asking for the suppression of the name *Xancus* and the validation of the name *Turbinella*.

I am not a conchologist but a botanist, but I believe that the name *Turbinella* should be retained for the convenience of the non-specialist. This generic name is used in a variety of fields other than Zoology and it is well established there. While *Xancus* may have been applied slightly earlier than *Turbinella*, it has never been in general use and *Turbinella* has been in use practically everywhere for many years. It would seem to me to be unjust to expect the wider fields of medicine, literature, etc., to change from such a well established name, and such an obviously appropriate one, as *Turbinella* to one which carries so little descriptive virtue as *Xancus*.

**8. Support on taxonomic grounds received from Horace B. Baker (University of Pennsylvania, U.S.A.) :** On 7th September 1956 Dr. Horace B. Baker (*University of Pennsylvania, U.S.A.*) addressed the following letter to the Office of the Commission in support of the present case on taxonomic grounds :—

The Commission should accept Dr. Baily's petition to prefer *Turbinella* Lamarck, June 1799, which anyway may be prior to the actually unpublished *Xancus* [Röding], manuscript date, September 1798.

**9. Support on taxonomic grounds received from E. P. Chace (Natural History Museum, Balboa Park, San Diego, California, U.S.A.) :** On 22nd September 1956 Dr. E. P. Chace (*Natural History Museum, Balboa Park, San Diego, California, U.S.A.*) addressed the following letter to the Office of the Commission in support of the present case on taxonomic grounds :—

Dr. Baily's proposal regarding the generic name *Turbinella* seems to me to be very wise.

In view of the fact that the *Museum Boltenianum* is at best a very unsatisfactory work for determining or applying Molluscan names

it would hardly seem advisable to attempt to impose it upon writers working in other fields.

Since *Museum Boltenianum* is accepted only with grave reservations by Conchologists as a group it would seem to make for better feeling and greater clarity for us to accept and return to the Lamarckian name *Turbinella* so widely used in literary, legal, and commercial writings and discard the comparatively little known *Xancus* and XANCIDAE.

I therefore urge the Commission to use its Plenary Powers to suppress the generic name *Xancus* for the purpose of the Law of Priority but not for those of the Law of Homonymy, and I endorse the proposals (2)-(3)-(4)-(5) and (6) on page 332 of the *Bulletin of Zoological Nomenclature*.

**10. Objection on taxonomic grounds received from three specialists at the Senckenbergische Naturforschende Gesellschaft, Frankfurt a. Main, Germany :** On 17th May 1956 Dr. A. Zilch, Professor R. Mertens and Dr. O. Kraus (all of the *Senckenbergische Naturforschende Gesellschaft, Frankfurt a. Main, Germany*) addressed the following letter to the Office of the Commission in which they expressed their objection to the present case on taxonomic grounds (Zilch *et al.*, 1956, *Bull. zool. Nomencl.* **12** : 183) :—

Zu dem Antrag von J. L. Baily (Z.N.(S.) 383) " Proposed use of the Plenary Powers to preserve the generic name *Turbinella* Lamarck, 1799, as the name for the Sacred Chank Shell of India " möchte ich Ihnen folgende Stellungnahme übermitteln :

Der Name *Turbinella* Lamarck, 1799, ist jüngerer, objektives Synonym von *Xancus* [Röding], 1798. *Turbinella* ist mehr als hundert Jahre in Gebrauch gewesen. Im Jahre 1926 (*Opinion* 96) erklärte die Kommission die Namen Röding's (1798) in *Museum Boltenianum* für nomenklatorisch verfügbar. Hierdurch musste der alte Name *Turbinella* Lamarck durch *Xancus* [Röding] ersetzt werden.

*Xancus* ist inzwischen in Gebrauch gekommen und auch in die führenden Handbücher (1931 Thiele : 342 ; 1943 Wenz : 1301) eingegangen. Wir halten es deshalb für verfehlt, den Namen *Xancus* [Röding], 1798, jetzt noch, nach 30-jähriger Gültigkeit, zu unterdrücken und damit ausserdem die in *Opinion* 96 getroffene Entscheidung der Kommission zu durchbrechen.

**11. Objection on taxonomic grounds received from R. Tucker Abbott (The Academy of Natural Sciences of Philadelphia, Philadelphia, Pennsylvania, U.S.A.):** On 7th September 1956 Professor R. Tucker Abbott (*The Academy of Natural Sciences of Philadelphia, Philadelphia, Pennsylvania, U.S.A.*) addressed the following letter to the Office of the Commission in which he expressed his objection to the present case on taxonomic grounds :—

I am submitting for consideration my objections over the application for the proposed use of the Plenary Powers to preserve the generic name *Turbinella* Lamarck as the name for the Sacred Chank Shell by J. L. Baily, Jr.

Although the name *Turbinella* was used almost exclusively for the Indian Chank up until 1916, since then the name *Xancus* has gradually come into use, until, today, there are few, if any, popular or scientific books and articles which do not use Röding's name of *Xancus*.

Most of the Indian literature on the fisheries and ethnology of the Chank was written by James Hornell. Although he and his students once used *Turbinella*, they have for the last ten years been using *Xancus*. Below are several papers which use *Xancus* :

James Hornell, 1951. "Indian Molluscs", *Bombay Natural History Society*

Devanesen, D. W. and Chacko, P. I., 1944. "On the bionomics of the sacred chank, *Xancus pyrum* (Linn.). *Proc. nat. Inst. Sci. India*, Vol. 10

Venkataraman, R. and Chari, S. T., 1953. "Food value of the edible portion of the Indian Chank, *Xancus pyrum*". *Current Science* (India), Vol. 22

A search of the fisheries administrative and research reports by the Indian Government at Madras for the last fifteen years failed to bring to light a single reference to the name *Turbinella*, although many hundreds of pages are devoted to the Chank Shell. Of twelve popular identification books on mollusks published in the last fifteen years, eleven use *Xancus*, one used *Turbinella*. The scientific literature is almost unanimous in its use of *Xancus*, the most frequently consulted works among these being Thiel's *Handbuch der Systematischen Weichtierkunde* (1931), Wenz's *Handbuch der Paläozoologie* (Pt. 6, p. 1302.1943), Abbot's "The Genera *Xancus* and *Vasum* in the Western

Atlantic" (*Johnsonia*, vol. 2, No. 28). A perusal of the *Zoological Record* shows that the vast majority of workers in the last fifteen years have been using *Xancus*.

In view of the fact that *Xancus* is used today by all workers, except a very few who do not accept Röding's *Museum Boltenianum*, and because *Turbinella* during its first 100 years of use contained a mixture of several genera and families, I strongly urge the Commission to allow the Law of Priority to hold in this case.

**12. Objection on taxonomic grounds received from Myra Keen (Stanford University, California, U.S.A.):** On 17th September 1956 Dr. Myra Keen (*Stanford University, California, U.S.A.*) addressed the following letter to the Office of the Commission in which she expressed her objection to the present case on taxonomic grounds:—

I wish to protest the proposal by Dr. Joshua L. Baily that the name *Turbinella* Lamarck be conserved at the expense of the prior *Xancus* [Röding]. It seems to me that none of the arguments adduced are of sufficient weight to justify such action at this late date, and there is, moreover the purely practical consideration that as the name *Xancus* has almost without exception been adopted in scientific literature and by museums since 1927, much confusion and label-changing would result. The genus is not one confined to Indian waters; it ranges westward to the Caribbean and in time back to medial or early Tertiary. Reinstating the name *Turbinella* would not expunge the word *Xancus* from all the works in which it currently appears, and students of the future would be just as much obliged to learn the synonymous pair of names as they have been. Hence, there would be no real gain, and there would be a loss of principle. I feel that granting of this petition by the Commission would only add to the growing feeling among many systematists that the supposedly firm ground of priority is being made into a quagmire and that the number of exceptions to the *Règles* waxes too great to be worth trying to remember.

**13. Objection on taxonomic grounds received from Harald A. Rehder and Joseph P. E. Morrison (Smithsonian Institution, U.S. National Museum, Washington, D.C., U.S.A.):** On 1st November 1956 there was received in the Office of the Commission a letter from Dr. Harald A. Rehder and Dr. Joseph P. E. Morrison (*Smithsonian Institution, U.S. National Museum, Washington,*

D.C., U.S.A.) in which they expressed their objection to the present case on taxonomic grounds :—

We wish unreservedly to support the position taken by Dr. R. Tucker Abbot in his letter to you of September 7,<sup>1</sup> objecting to the proposal of Joshua L. Baily, Jr. to preserve the generic name *Turbinella* Lamarck, 1799.

As Dr. Abbot has already pointed out the recent papers dealing with the Chank Fisheries, emanating from India have used the prior name *Xancus*, as for the recent comprehensive malacological reference works. To replace *Xancus* with *Turbinella* would cause just such confusion as Dr. Baily states that he wishes to avoid. We hope that the Commission will reject this proposal and allow the law of priority to stand in this case.

**14. Support on anthropological grounds received from the Royal Anthropological Institute of Great Britain and Ireland, London :** On 15th June 1956 Miss Marian W. Smith (Joint Hon. Sec., *Royal Anthropological Institute of Great Britain and Ireland, London*) addressed the following letter to the Office of the Commission expressing the Institute's support to the present case (Smith, 1956, *Bull. zool. Nomencl.* **12** : 183) :—

The Royal Anthropological Institute has referred the question of the name *Turbinella* as the name for the Sacred Chank Shell of India to five of its leading Fellows, and the matter was also raised at its last Council meeting on 7th June.

The concensus of opinion seems to be that considerable confusion might result from any strict application of a rule establishing the name *Xancus*. An application to validate the name *Turbinella* Lamarck is suggested. Not only has the name been widely used for a century, but it is the one under which the species is known in practically all literature.

The name is used by professional conchologists, by anthropologists and prehistorians, and a change would inevitably lead to the assumption that a different species was under discussion. A rather awkward

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<sup>1</sup> For the letter by Professor R. Tucker Abbot here referred to, see paragraph 11 above.

alternative would be to recommend the continued use of *Turbinella*, placed in brackets after *Xancus*.

**15. Objection received after the close of the Prescribed Waiting Period and after the issue of the Voting Paper in the present case :**

On 20th December 1956, i.e. after the Close of the Prescribed Waiting Period and after also the issue of the Voting Paper in the present case (paragraph 16 below) a communication was received in the Office of the Commission from Mr. Arthur N. Dusenbury, Jr. (*Creole Petroleum Corporation, Jusepín, Monagas, Venezuela*). Mr. Dusenbury was informed by the Secretary that his communication had been received too late to receive consideration but that it would be reproduced for purposes of record in the *Opinion* which would be rendered when a decision had been taken by the Commission on the Voting Paper then before it. Mr. Dusenbury's letter (which was dated 6th December 1956) contained a request for the rejection of the application submitted by Dr. Joshua L. Baily, Jr. and set out the action of an affirmative character which would be required if the above application were to be rejected. The text of Mr. Dusenbury's letter was as follows :—

Dr. Joshua L. Baily, Jr. (*Bull. zool. Nomencl.* **11** : 330—332) has made a very good case for the " Proposed Use of the Plenary Powers to Preserve the Generic Name *Turbinella* Lamarck, 1799, as the Name for the Sacred Chank Shell of India ", but has failed to state the case against it.

2. I would have had no objection to Mr. Baily's proposal if it had been made in 1926, when the International Commission on Zoological Nomenclature in *Opinion* 96 recognized the *Museum Boltenianum* as available for nomenclatorial purposes, thereby validating *Xancus* [Röding], 1798, and reducing *Turbinella* Lamarck, 1799, to the status of a junior objective synonym. In the thirty years which have elapsed since 1926, *Xancus* [Röding] and the family XANCIDAE are names which have become deeply rooted in paleontological and conchological literature, with the result that, in my opinion, more confusion would be caused by reverting to *Turbinella* and TURBINELLIDAE than would be caused by a strict enforcement of the *Règles*. Dr. Baily's proposal would penalize those authors who have followed the *Règles* and favor those who have neglected them.

3. As witness for the prevalence of *Xancus* in the recent paleontological and conchological literature, I can only cite the evidence of my

own somewhat limited library. The earliest modern reference to *Xancus* occurs in 1917. This and subsequent pertinent references are listed below.

- Xancus* Bolten.<sup>2</sup> Maury, 1917, *Bull. amer. Paleont.* **5** (No. 29) : 247
- Turbinella* Lamarck, *Xancus* Bolten.<sup>2</sup> Hubbard, 1920, *N. Y. Acad. Sci.*, "Sci. Surv. Porto Rico and Virgin Ids." **3**(2) : 153—155
- Xancus* Bolton [sic]. Olsson, 1922, *Bull. amer. Paleont.* **9** (No. 39) : 283—284
- Xancus* Bolten.<sup>2</sup> Maury, 1925, *Bull. amer. Paleont.* **10** (No. 42) : 359—360
- Xancus peruvianus* n. sp. Olsson, 1928, *Bull. amer. Paleont.* **14** (No. 52) : 89
- XANCIDAE, *Xancus* ("Bolten") Röding. Woodring, 1928, *Carnegie Inst. Wash.* **385** : 250—252
- Xancus* (Bolten) Röding, 1798. Thiele, 1929, *Handb. syst. Weichtierk.* (1) : 342
- Xancus* Bolten.<sup>2</sup> Weisbord, 1929, *Bull. amer. Paleont.* **14** (No. 54) : 278—279
- Xancus* ("Bolten") Röding *Eoxancus*, n. subg. Olsson, 1930, *Bull. amer. Paleont.* **17** (No. 62) : 47—49
- Xancus* Bolton<sup>2</sup> [sic]. F. & H. K. Hodson, 1931, *Bull. amer. Paleont.* **16** (No. 59) : 38—41
- Xancus* Bolton.<sup>2</sup> F. & H. K. Hodson, 1931, *Bull. amer. Paleont.* **16** (No. 60) : 106—107
- Xancus wilsoni* Conrad. Tucker & Wilson, 1933, *Bull. amer. Paleont.* **18** (No. 66) : 72—73
- XANCIDAE, *Xancus*. Davies, 1935, *Tertiary Faunas*, **1** : 295, 297
- XANCIDAE. Aldrich & Snyder, 1936, *Florida Sea Shells* : 67
- XANCIDAE, *Xancus* Röding, 1797 [sic]. Maxwell Smith, 1940, *World-Wide Sea Shells* : 64
- Turbinella scolymus* Gmelin. Webb, 1942, *United States Mollusca* : 7
- Xancus* "Bolten" Röding, 1798. Shimer & Shrock, 1944, *Index Fossils of North America* : 508
- XANCIDAE, *Xancus* (Bolten) Röding. Gardner, 1945, *Mem. geol. Soc. Amer.* **11** : 210—211
- XANCIDAE, *Xancus* Röding, 1798. Maxwell Smith, 1945, *East Coast Marine Shells* (ed. 3) : 127
- XANCIDAE, *Xancus* ("Bolten") Röding, 1798. Clark, 1946, *Mem. geol. Soc. Amer.* **16**(1) : 42
- XANCIDAE, *Xancus angulatus*. Morris, 1947, *A Field Guide to the Shells* (ed. 1) : 161—162

<sup>2</sup> The question of the authorship—whether Bolten or Röding—of the anonymous work *Museum Boltenianum* published in 1798 has been the subject of a Ruling in the Commission's recently published *Direction* 48 (1956, *Ops. Decls. int. Comm. zool. Nomencl.* **1**(D) : 255—264) under which names in this work are to be attributed to Röding and not to Bolten.



*Turbonella pyrum*, *Turbinellum pyrum*. Webb, 1948, *Handbook for Shell Collectors* (ed. 8) : 107, 233

XANCIDAE, *Xancus* Bolten,<sup>3</sup> 1798. Morris, 1951, *A Field Guide to the Shells* (ed. 2) : 209—210

*Xancus* Röding. Rehder, 1951, in Rogers, *Shell Book* (ed. 2) : 489

XANCIDAE. C. N. & N. R. Vilas, 1952, *Florida Marine Shells* (ed. 2) : 85

XANCIDAE, XANCINAE, *Xancus* Röding, 1798. Abbot, 1954, *American Seashells* : 244—245

4. Of the twenty-six references found, twenty-three use *Xancus* or XANCIDAE, one uses *Turbinella*, one uses misspellings of *Turbinella* and one uses both *Xancus* and *Turbinella*, its author apparently unaware that the two names are objective synonyms. This preponderance of the name *Xancus* over the name *Turbinella* might perhaps be reversed in Asia, but it is nevertheless perfectly clear that Dr. Baily's proposal would cause confusion, especially in America. Since there is bound to be some confusion whether the name *Xancus* is retained or whether it is replaced by the name *Turbinella*, it would seem best to adhere strictly to the *Règles*.

5. Dr. Baily's proposal is defective in several minor respects. XANCIDAE Woodring, 1928, *loc. cit.*, has priority over XANCIDAE Johnson, 1934, and it appeared in a very well known treatise on the paleontology of the Miocene Bowden formation of Jamaica. No provision has been made for *Turbinellus* Lamarck, 1801, presumably an invalid emendation of *Turbinella* Lamarck, 1799, nor for *Turbinella* Bory de St. Vincent, 1827, a protozoan (Neave, 1940, *Nomencl. zool.* 4 : 592), and a junior homonym of *Turbinella* Lamarck, nor for the misspellings *Turbonella* Webb, 1948, and *Turbinellum* Webb, 1948, noted in the preceding paragraphs.

6. In view of the foregoing considerations, it seems advisable to submit an alternate set of proposals to the International Commission on Zoological Nomenclature, namely that it should :—

- (1) place the under-mentioned name on the *Official List of Generic Names in Zoology* :

*Xancus* [Röding], 1798 (gender : masculine) (type species, by subsequent designation of Dall, 1906 : *Voluta pyrum* Linnaeus, 1767) ;

<sup>3</sup> See Footnote 2 above.

- (2) place the under-mentioned name on the *Official List of Specific Names in Zoology* :

*pyrum* Linnaeus, 1767, as published in the combination *Voluta pyrum* (specific name of type species of *Xancus* [Röding], 1798) ;

- (3) place the under-mentioned names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

(a) *Turbinella* Lamarck, 1799, an objective synonym of *Xancus* [Röding], 1798 ;

(b) *Turbinellus* Lamarck, 1801, an invalid emendation of *Turbinella* Lamarck, 1799 ;

(c) *Turbinella* Bory de St. Vincent, 1827, a junior homonym of *Turbinella* Lamarck, 1799 ;

(d) *Turbonella* Webb, 1948, and *Turbinellum* Webb, 1948, both erroneous subsequent spellings of *Turbinella* Lamarck, 1799 ;

- (4) place the under-mentioned name on the *Official List of Family-Group Names in Zoology* :—

XANCIDAE Woodring, 1928 (type genus : *Xancus* [Röding], 1798) ;

- (5) place the under-mentioned name on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—

TURBINELLIDAE Swainson, 1840 (type genus : *Turbinella* Lamarck, 1799).

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

**16. Issue of Voting Paper V.P.(56)42 :** On 30th November 1956 a Voting Paper (V.P.(56)42) was issued in which the Members of the Commission were invited to vote either for, or against, " the proposal relating to the generic name *Turbinella* Lamarck, 1799, as set out in Points (1) to (6) in paragraph 8 on page 332

in 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 *Opinion*].

**17. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd March 1957.

**18. Particulars of the Voting on Voting Paper V.P.(56)42 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)42 was as follows :—

(a) *Affirmative Votes had been given by the following eighteen (18) Commissioners (arranged in the order in which Votes were received) :*

Boschma ; Hering ; Mayr ; Lemche ; Bonnet ;  
Bradley (J.C.) ; Bodenheimer ; Dymond ; Kühnelt ;  
Riley ; Esaki ; Stoll ; do Amaral ; Cabrera ; Tor-  
tonese ; Hemming ; Jaczewski ; Miller ;

(b) *Negative Votes, six (6) :*

Vokes ; Holthuis ; Prantl ; Mertens ; Key ; Sylvester-  
Bradley ;

(c) *Prevented from Voting by interruption of postal communica-  
tions consequent upon political disturbances, one (1) :*

Hankó ;

(d) *Voting Papers not returned :*

None.

**19. Declaration of Result of Vote :** On 3rd March 1957, Mr. Hemming, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)42, signed a Certificate that the Votes cast were as set out in paragraph 18 above and declaring that, this being a case involving the possible use of the Plenary Powers, the proposals regarding which had received not less than two out of every three votes cast, the proposals submitted had been duly adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

**20. Addition of four generic names to the " Official Index of Rejected and Invalid Generic Names in Zoology :** On 2nd July 1957 the Secretary executed the following Minute drawing attention to certain invalid generic names involved in the present case and directing that under the " Completeness-of-Opinions " Rule the said names be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* in the Ruling to be given in the *Opinion* embodying the decision taken by the International Commission by its vote on Voting Paper V.P.(56)42 :—

**Insertion of four additional invalid names on the " Official Index of Generic Names in Zoology " under the " Completeness-of Opinions " Rule**

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

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

In a letter dated 6th December 1956 received after the issue of Voting Paper V.P.(56)42 Mr. Arthur N. Dusenbury (*Jusepin, Monagas, Venezuela*) drew attention to the existence of three Invalid Emendations and/or Erroneous Subsequent Spellings for *Turbinella* Lamarck, 1799, and one junior homonym of that name. The names (or spellings) concerned, with their respective references are as follows :—

*Turbinellus* Lamarck, 1801, *Syst. Anim. sans Vertèbr.* : 83

*Turbinella* Bory de St. Vincent, [1827], *Ency. méth., Zooph.* : 525

*Turbinellum* Webb, 1948, *Handbook Shell Collectors* (ed. 8) : 233

*Turbonella* Webb, 1948, *Handbook Shell Collectors* (ed. 8) : 107

2. Of the above names the first is an Invalid Emendation by Lamarck of his own name *Turbinella*, while the third and fourth are Erroneous Subsequent Spellings for that name. The second of the names cited above is a junior homonym of *Turbinella* Lamarck.

3. As Secretary, I now hereby direct that under the "Completeness-of-Opinions" Rule the names specified in paragraph 1 of the present Minute, together with the particulars specified in paragraph 2, be inscribed on the *Official Index of Rejected and Invalid Specific Names in Zoology* in the Ruling to be given in the *Opinion* embodying the decision in the present case taken by the International Commission by its vote on Voting Paper V.P.(56)42.

**21. Insertion on the "Official Index of Rejected and Invalid Family-Group Names in Zoology" of an earlier bibliographical reference for the family-group name based on the generic name "Xancus" [Röding], 1798, than that previously believed to be the oldest such reference :** On 2nd July 1957 the Secretary executed the following Minute drawing attention to the existence of an earlier bibliographical reference for the family-group name based on the generic name *Xancus* [Röding], 1798, than that previously believed to be the oldest such reference and directing that the entry relating to the above family-group name to be made on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* be corrected accordingly :—

**Insertion on the "Official Index of Rejected and Invalid Family-Group Names in Zoology" of an older bibliographical reference for the nominal family-group taxon based upon the generic name "Xancus" [Röding], 1798, than the oldest such previously ascertained**

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

(Secretary to the International Commission on Zoological Nomenclature)

At the time of the submission to the International Commission on Zoological Nomenclature of Application Z.N.(S.) 383 relating to the generic name *Turbinella* Lamarck, 1799, and associated names it was believed that the generic name *Xancus* [Röding], 1798, had first been

taken as the base for a family-group name XANCIDAE by Johnson in 1934 and it was accordingly recommended in that application that the foregoing name should be placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* as from the above author and date.

2. In a communication received from Mr. Arthur N. Dusenbury (*Jusepín, Monagas, Venezuela*) after the issue of Voting Paper V.P.(56)42 relating to the above case attention was drawn to an earlier reference for the family-group name discussed above, namely XANCIDAE Woodring, 1928 (*Carnegie Inst. Wash.* 385 : 250—252).

3. As Secretary, I now hereby direct that, when in accordance with the vote taken by the International Commission on the Voting Paper specified above the name XANCIDAE is inscribed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*, it be attributed not to Johnson, 1934, but to Woodring, 1928.

**22. Preparation of the Ruling given in the present " Opinion " :**  
On 3rd July 1957 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)42, subject (a) to the addition to the *Official Index of Rejected and Invalid Generic Names in Zoology* under the " Completeness-of-Opinions " Rule of the four generic names specified in the Minute executed by the Secretary on 2nd July 1957, the text of which has been reproduced in paragraph 20 of the present *Opinion*, and (b) to the substitution of an earlier bibliographical reference for the family-group name based on the generic name *Xancus* [Röding], 1798, in place of that previously believed to be the oldest such reference, as directed in the Minute executed by the Secretary on the date specified above, the text of which has been reproduced in paragraph 21 of the present *Opinion*.

**23. 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* :—

- pyrum*, *Voluta*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) **1(2)** : 1195
- Turbinella* Lamarck, 1799, *Mém. Soc. Hist. nat. Paris* **1799** : 73
- Turbinella* Bory de St. Vincent, [1827], *Ency. méth.*, Zooph. : 525
- Turbinellum* Webb, 1948, *Handbook Shell Collectors* (ed. 8) : 233
- Turbinellus* Lamarck, 1801, *Syst. Anim. sans Vertèbr.* : 83
- Turbonella* Webb, 1948, *Handbook Shell Collectors* (ed. 8) : 107
- Xancus* [Röding], 1798, *Mus. bolten.* **2** : 134

**24.** The following are the original references for the family-group names placed respectively on the *Official List* and *Official Index* of names of taxa of the family-group category by the Ruling given in the present *Opinion* :—

TURBINELLIDAE Swainson, 1840, *Treatise Malac.* (Lardner's *Cab. Cyclop.*) : 75

XANCIDAE Woodring, 1928, *Carnegie Inst. Wash.* **385** : 250—252

**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.

26. The present *Opinion* shall be known as *Opinion* Four Hundred and Eighty-Nine (489) of the International Commission on Zoological Nomenclature.

DONE in London, this Third day of July, 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

**VOLUME 17. Part 12. Pp. 179—196**

## **OPINION 490**

Action under the Plenary Powers to preserve for use in its accustomed sense the generic name *Elaphe* Fitzinger, 1833 (Class Reptilia)



**LONDON:**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

**Price Twelve Shillings -**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 490

### A. The Officers of the Commission

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

---

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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,  
as prescribed by the International Congress of Zoology*)

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(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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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)

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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 490

### ACTION UNDER THE PLENARY POWERS TO PRESERVE FOR USE IN ITS ACCUSTOMED SENSE THE GENERIC NAME "ELAPHE" FITZINGER, 1833 (CLASS REPTILIA)

**RULING** :—(1) Under the Plenary Powers it is hereby directed that the generic name *Elaphe* Fitzinger, 1833 (Class Reptilia), is not to be rejected in favour of the older name *Gonyosoma* Wagler, 1828, by any specialist who on taxonomic grounds may take the view that the respective type species of these genera are congeneric with one another.

(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) *Elaphe* Fitzinger, 1833, a name taking precedence by the direction given under the Plenary Powers in (1) above over the name *Gonyosoma* Wagler, 1828 (gender : feminine) (type species, by monotypy : *Elaphe parreyssii* Wagler, 1832) (Name No. 1229) ;
- (b) *Gonyosoma* Wagler, 1828 (gender : neuter) (type species, by monotypy : *Gonyosoma viride* Wagler, 1828) (for use only by any specialist who on taxonomic grounds may take the view that the type species of this genus is not congeneric with the type species of *Elaphe* Fitzinger, 1833) (Name No. 1230).

(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) *oxycephalus* Boie, 1827, as published in the combination *Coluber oxycephalus* (Name No. 1435) ;
- (b) *quatuorlineatus* Lacépède, 1789, as published in the combination *Coluber quatuorlineatus* (Name No. 1436) ;
- (c) *sauromates* Pallas, [1814], as published in the combination *Coluber sauromates* (Name No. 1437).

#### I. THE STATEMENT OF THE CASE

On 12th March 1954, Professor Robert Mertens (*Natur-Museum und Forschungs-Institut Senckenberg, Frankfurt a. Main, Germany*) submitted to the International Commission on Zoological Nomenclature a preliminary application for the preservation under the Plenary Powers of the generic name *Elaphe* Fitzinger, 1833 (Class Reptilia). As a result of correspondence between Professor Mertens and the Secretary, the following revised application was submitted on 20th July 1955 :—

**Proposed use of the Plenary Powers to preserve the generic name  
“ Elaphe ” Fitzinger, 1833 (Class Reptilia)**

By ROBERT MERTENS

(*Natur-Museum und Forschungs-Institut Senckenberg,  
Frankfurt a. Main, Germany*)

The object of the present application is to ask the International Commission to use its Plenary Powers to prevent the well-known generic name *Elaphe* Fitzinger, 1833 (Class Reptilia) from disappearing

as a junior subjective synonym of the generic name *Gonyosoma* Wagler, 1828. The facts of this case are set out in the following paragraphs.

2. Attention was drawn to this problem by Malcolm Smith in 1943 (*Fauna Brit. Ind. Ceylon, Burma, Rept. & Amph.* 3 : 139, 141), who, when dealing with the Indian species of the genus *Elaphe* Fitzinger, 1833, wrote as follows :—" I cannot find any morphological characters by which to distinguish *Gonyosoma* Wagler, 1828, type *viride*=*oxycephala*, from the species usually placed under *Elaphe* Fitzinger, 1833. *Gonyosoma* therefore should stand as the name of the genus". In view, however, of the disturbance in current practice which this change of name would have caused, Malcolm Smith retained the generic name *Elaphe* Fitzinger.

3. According to current taxonomic views *Elaphe parreyssii* Wagler 1833, the type species of *Elaphe* Fitzinger, 1833, by monotypy, is a junior subjective synonym of *Coluber sauromates* Pallas, [1814], which is currently treated as being a subspecies of *Coluber quatuorlineatus* Lacépède, 1789, and *Gonyosoma viride* Wagler, 1828, the type species, by monotypy, of *Gonyosoma* Wagler, 1828, is a junior subjective synonym of *Coluber oxycephalus* Boie, 1827. Further it is currently considered that *Coluber quatuorlineatus* Lacépède and *Coluber oxycephalus* are congeneric with one another. Thus, as observed by Malcolm Smith, the name *Elaphe* Fitzinger, 1833, is a junior subjective synonym of *Gonyosoma* Wagler, 1828.

4. The substitution of the name *Gonyosoma* for *Elaphe* would be very troublesome and confusing in view of the large number of *Elaphe* forms, including nine in Europe alone, thirty-three in Asia and sixteen in North and Central America. The disturbance which would be caused by this change in name would affect check lists and numerous taxonomic and faunistic works.

5. In order to prevent the undesirable results indicated above, it is proposed that the International Commission should use its Plenary Powers to suppress the name *Gonyosoma* Wagler, thus providing the name *Elaphe* Fitzinger with an unchallengeable position.

6. The following are the original references for the names cited in the present application :—

*Elaphe* Fitzinger, 1833, in Wagler, *Descr. Icon. Amph.* (3) : expl. pl. 27  
*Gonyosoma* Wagler, 1828, *Descr. Icon. Amph.* (1) : expl. pl. 9  
*oxycephalus*, *Coluber*, Boie, 1827, *Isis* (Oken) 1827 : 537

*parreyssii*, *Elaphe*, Wagler, 1833, *Descr. Icon. Amph.* (3) : expl. pl. 27  
*quatuorlineatus*, *Coluber*, Lacépède, 1789, *Hist. nat. Quadrup. ovip. Serpens* 2 : 82  
*sauromates*, *Coluber*, Pallas, [1814], *Zoographia rosso-asiat.* 3 : 42  
*viride*, *Gonyosoma*, Wagler, 1828, *Descr. Icon. Amph.* (3) : expl. pl. 9

7. The genus *Elaphe* Fitzinger is not the type genus of a taxon belonging to any category in the family-group.

8. In the application now submitted the International Commission is asked :—

- (1) to use its Plenary Powers to suppress the generic name *Gonyosoma* Wagler, 1828, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (2) to place the under-mentioned generic name on the *Official List of Generic Names in Zoology* :—*Elaphe* Fitzinger, 1833 (gender : feminine) (type species, by monotypy : *Elaphe parreyssii* Wagler, 1832) ;
- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
  - (a) *oxycephalus* Boie, 1827, as published in the combination *Coluber oxycephalus* ;
  - (b) *quatuorlineatus* Lacépède, 1789, as published in the combination *Coluber quatuorlineatus* ;
  - (c) *sauromates* Pallas, [1814], as published in the combination *Coluber sauromates* ;
- (4) to place the under-mentioned generic name on the *Official Index of Rejected and Invalid Generic Names in Zoology* : *Gonyosoma* Wagler, 1828, as suppressed under the Plenary Powers under (1) above.

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt of Professor Mertens' preliminary application the question of the preservation of the generic name *Elaphe* Fitzinger, 1833, was allotted the Registered Number Z.N.(S.) 824.

**3. Publication of the present application :** The present application was sent to the printer on 30th November 1955 and was published on 9th May 1956 in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Mertens, 1956, *Bull. zool. Nomencl.* **11** : 347—348).

**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 9th May 1956 (a) in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Professor Mertens' application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to two herpetological serials in Europe and America. Finally, this case was brought to the attention of the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists.

**5. Comments received :** During the Prescribed Six-Month Waiting Period following the publication of the present application in the *Bulletin of Zoological Nomenclature* comments were received from five specialists. Of these, two were members of the Committee on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists whose views were communicated to the Office of the Commission in a single document by the Chairman of that Committee. The four communications received in regard to the present case are reproduced in the immediately following paragraphs.

**6. Support received from Hobart M. Smith (Department of Zoology, University of Illinois, Urbana, Illinois, U.S.A.) :** On 1st June 1956, Professor Hobart M. Smith (*Department of Zoology, University of Illinois, Urbana, Illinois, U.S.A.*) addressed the following letter to the Office of the Commission in support of the present case (Smith, 1956, *Bull. zool. Nomencl.* **12** : 142) :—

In my opinion the requests to the Commission embodied in the application by Robert Mertens relative to *Elaphe* Fitzinger, 1833, unquestionably merit approval.

**7. Comments by Norman J. Wilimovsky (Standard University, California, U.S.A.) and Jay M. Savage (University of Southern California, Los Angeles, California, U.S.A.) :** On 17th September 1956 a report was received from Dr. W. I. Follett (*California Academy of Sciences, San Francisco, California, U.S.A.*) giving particulars of the views on the present case expressed to him as Chairman on Zoological Nomenclature of the American Society of Ichthyologists and Herpetologists by two members of that Committee, namely, (i) Dr. Norman J. Wilimovsky (*Stanford University, Stanford, California, U.S.A.*) and (ii) Dr. Jay M. Savage (*University of Southern California, Los Angeles, California, U.S.A.*). The comments so received were as follows :—

**(a) Comment by Norman Wilimovsky  
(Stanford University, Stanford, California, U.S.A.)**

I feel that the evidence presented by Dr. Mertens is insufficient to vote in the affirmative for the proposal to employ Plenary Powers in preserving the name *Elaphe*. For example, item 2 of Dr. Mertens' application indicates that Smith (1943) employed the name *Elaphe* in spite of the fact that he realized that another name (*Gonyosoma*) had priority and validity. Actually, Smith (1943 : 141) stated as follows :

I cannot find any morphological characters by which to distinguish *Gonyosoma* Wagler, 1828, type *viride* = *oxycephala*, from the species usually placed under *Elaphe* Fitzinger, 1833. *Gonyosoma* therefore should stand as the name of the genus. Its limits, however, are not yet clearly defined, and fresh work upon it will probably result in further changes in nomenclature. Rather than add to the confusion, I leave *Elaphe* for the present as it stands.

Thus, Smith himself regarded the problems as zoological rather than nomenclatural.



**(b) Comment by Jay M. Savage****(University of Southern California, Los Angeles, California, U.S.A.)**

In the case of *Elaphe*, I would also tend to favor Dr. Mertens' application. However, there remains some possibility that the type of *Gonyosoma* and *Elaphe* are members of different generic groups. For this reason I would suggest that our Committee request the opinion of Dr. Herndon Dowling, Department of Zoology, University of Arkansas, Fayetteville, Arkansas, the leading American authority on the genus *Elaphe*, for his reaction to the Mertens' application. If no cogent arguments can be produced against this petition I would vote in favor of conserving *Elaphe*.

**8. Comment by James A. Peters (Brown University, Department of Biology, Providence, Rhode Island, U.S.A.) :** On 18th September 1956, Dr. James A. Peters (*Brown University, Department of Biology, Providence, Rhode Island, U.S.A.*) addressed a letter to the Office of the Commission, covering a paper in which he criticised certain aspects of the proposal submitted by Professor Mertens in the present case. This document, as slightly revised by Dr. Peters in a further communication dated 23rd October 1956, was as follows :—

**Comment on the proposed validation of "Elaphe" Fitzinger, 1833 (Class Reptilia), as presented by Dr. Robert Mertens**

While the proposal by Dr. Robert Mertens (1956, *Bull. zool. Nomencl.* **11**(11) : 325—326, 347—348) for conservation of the generic name *Elaphe* Fitzinger, 1833, currently before the International Commission for Nomenclature (Z.N.(S.) 824), is of considerable merit and is based upon the best of intentions, there are several facts in addition to those presented that should be available to the commission prior to the date of final arbitration.

In his petition, Mertens has interpreted comments by Malcolm Smith (1943, *Fauna British India* **3** : 141) to state that the two genera, *Elaphe* and *Gonyosoma* Wagler, 1828 could not be separated, and that, although *Gonyosoma* is the senior synonym, it was wiser to retain *Elaphe* as the name of the genus. From this statement the conclusion is easily drawn that Smith considered the two type species to be congeneric, but this is not quite the case. It should be understood that Smith had reference primarily to oriental species. He says, "I cannot

find any morphological characters by which to distinguish *Gonyosoma* Wagler, 1828, type *viride* = *oxycephala*, from the species usually placed under *Elaphe* Fitzinger, 1833. *Gonyosoma* therefore should stand as the name of the genus. Its limits, however, are not yet clearly defined, and fresh work upon it will probably result in further changes in nomenclature. Rather than add to the confusion, I leave *Elaphe*, for the present as it stands". While it is entirely possible that all oriental species which have been referred to either *Elaphe* or *Gonyosoma* are congeneric, it has not been proven that the type species of these two genera are also congeneric. The type species of *Gonyosoma* occurs in the region covered by Smith's work and was mentioned by him. The type species of *Elaphe* is European, and Smith mentioned only "the species usually placed under *Elaphe* . . ." Smith indicated only that all oriental species formerly assigned to *Elaphe* should be transferred to *Gonyosoma*, without specific reference to or action concerning the species of *Elaphe* found elsewhere in the world. He did not make the change even for the Indian species, however, due to the lack of adequate work on the problem. Since Smith is the only author quoted by Mertens in his petition, the remarks above concerning Smith's position are of some consequence in aiding the Commission to reach its decision.

Mertens felt that use of the *Gonyosoma* would result in confusion due to the extensive use of the name *Elaphe* in checklists, faunal studies, and so on, and that many species in Asia, Europe and North America would be affected by any change in status of *Elaphe*. *Gonyosoma* is not, however, an old and forgotten name, unused by herpetologists. On the contrary, since 1900 it has appeared in the literature many times, used by such authors as Lorenz Müller, Thomas Barbour, Edward H. Taylor, Leonhard Stejneger, Emmet R. Dunn, Karl P. Schmidt (who described a species novum in the genus in 1925), René Bourret, Clifford Pope, Alice Boring, Fernand Angel, L. D. Brongersma, and others. Mertens himself used the genus in 1927, 1929, 1930 and 1934. The status of the genera *Gonyosoma* and *Elaphe* was discussed in detail by Fejervary in 1923 (*Zool. Anz. for 1923* : 169). He wrote, "Das Genus *Coluber* autorum (non Linné) muss also umgetauft werden, und diesbezüglich ist Art. 28 der Nomenklaturregeln massgebend. Laut diesem Art. kann aber der von nun an anzuwendende Name nicht *Elaphe* Fitzinger, 1833, sein, . . . sondern *Gonyosoma* Wagl., 1828, da dieser Name 'den ältesten gültigen Namen der Gattungen und Untergattungen' darstellt, welche die Gattung *Coluber* (non Linné) 'zusammensetzen'." It is evident that both the demonstration of the priority of the name *Gonyosoma* and its accepted usage by herpetologists antedate Smith's paper by several years. There has been little, if any, use of *Gonyosoma* since the book by Smith was published in 1943. There has been no major review of the situation since then, however.

While the generic name *Elaphe* has been used consistently for North American species since 1907, when Stejneger (*Bull. U.S. nat. Mus.* 58 : 307) established it as a world wide taxon, there is room for doubt as to the validity of the usage. Thus, Pope (1935, *Reptiles of China* : 227) said "Although without doubt the species of *Elaphe* as generally understood are too varied to included in a single genus, the problem of properly dividing them is a major task because there are apparently no sharp lines of demarcation. I believe, however, that a collation of hemipenes will give results. There is certainly no objection to recognising the genus *Gonyosoma* Wagler (type, *G. viride* = *Coluber oxycephalus* (Boie) and placing *frenata* and *prasina* in it. I have not done so simply because of the generally conservative treatment of genera followed in this work. In the case of a genus as large as *Elaphe*, it may be just as well, or even best to leave the splitting off of small groups of species to a future reviser who one hopes, will clear the matter up once and for all". While the study suggested by Pope has not yet been done, the North American species of the genus *Elaphe* have been thoroughly reviewed by Dowling within the past few years. The full results of his work have not as yet been published, but an abstract is available (Dissertation Abstracts, Ann Arbor, Mich., vol. 12, no. 4, 1952, p. 400). In this abstract Dowling said, "It is indicated that resemblances in scutellation, form, and pattern should not be used as indicators of relationships in non-interbreeding forms since these characters tend to converge in distantly related species. Thus, the supposed relationship of American to Eurasian forms (including the genotype) is open to question". Contrary to Mertens' petition, therefore it appears that regardless of any decision made by the Commission at this time, there is some likelihood that the North American species will eventually be removed from the genus *Elaphe*, and one of the North American synonyms revived for the redefined taxon. Although the name *Elaphe* has been most thoroughly attached to these species for many years, under no circumstances could the name be permanently affixed to them, since the genotype is European.

There is, in addition, reasonable doubt that *Gonyosoma* and *Elaphe* are congeneric, even if North American species are not considered, and the problem restricted to Eurasia. This doubt is clearly indicated in the statements of Pope and Malcolm Smith, quoted above. In addition, Taylor (1922, *Snakes of the Philippine Islands* : 152), referring to the genus *Gonyosoma*, said, "The genus is not a large one and has frequently been regarded as belonging to the genus *Elaphe*. This association, however, is not warranted. One species, *Gonyosoma oxycephalum* (Boie), enters the Philippines." Taylor differentiated between the two genera on the basis of scale counts. Both Taylor and Pope have indicated that *Gonyosoma* is a comparatively small genus, with restricted distribution. This would indicate that, if the Commission were to act as petitioned, there is every likelihood that a future reviser would find it necessary either to find an old synonym

or to erect a new generic name to replace *Gonyosoma*, which would have been declared unavailable. This unnecessary state of affairs can be avoided by leaving *Gonyosoma* as a valid, available name.

It would be most undesirable to use the powers of the Commission in order to give the surface appearance of solution to a problem that is essentially biological in nature. By taking the suggested course of action the Commission would in effect be validating a biological conclusion that is as yet unproven. The number of authors who have either recognized *Gonyosoma* as a valid genus or discussed the possibly composite nature of the genus *Elaphe* would indicate that current conclusions are tentative and unsatisfactory. It would seem to be an inopportune time for invalidation of an available name by Commission action.

It is suggested, therefore, that the Commission might act in the following manner with regard to this petition :

(1) recommend continued use of *Elaphe* in its current, broadest sense as a world-wide genus until such a time as the biological limits of the genera *Gonyosoma* and *Elaphe* are better established.

(2) decline the petition that the name *Gonyosoma* be placed on the *List of Rejected Names in Zoology*.

(3) suggest that arbitration of the assignment of the names in question be postponed until such a time when all biological aspects of the problem have been more thoroughly investigated.

**9. Comment by Herndon D. Dowling (University of Florida, Gainesville, Florida, U.S.A.) :** On 29th October 1956, Dr. Herndon D. Dowling (*Department of Zoology, University of Arkansas, Fayetteville, and Postdoctoral Research Fellow, University of Florida, Gainesville, Florida, U.S.A.*) addressed the following letter to the Office of the Commission in which he criticised Professor Mertens' application on lines similar to those advanced by Dr. James A. Peters (paragraph 8 above) :—

Robert Mertens has requested that the generic name *Gonyosoma* Wagler (1828) be suppressed by the Commission in order to avoid its substitution for the well-known name *Elaphe* Fitzinger (1833). Peters has opposed Mertens proposal and would instead, recommend the usage of standard procedures in determination of the proper name to be used for the genus *Elaphe* as currently defined.

However, neither *Gonyosoma* nor *Elaphe* currently have adequate definitions on non-regional bases. The absence of such information and the lack of knowledge as to the actual relationships of the animals involved suggest that the biological approach might offer a better solution to this nomenclatural problem. A study of the type species of the two genera and a comparison of their characteristics with those of other European and North American species currently referred to the genus *Elaphe* has been made. The full results of the study, which are summarized here, are being published elsewhere (Dowling, *Copeia*, 1957 : in press).

The study shows *G. oxycephalum* Boie, the type species of *Gonyosoma* from south-eastern Asia to be completely distinct from the European *E. quatuorlineata* Lacépède, the type species of *Elaphe*, in characters of scutellation, hemipenis, and skeleton. It also differs in these same characters, and to the same degree, from other European and North American species which are currently allocated to *Elaphe*. These northern species, although differing from one another in many respects, have a large number of characteristics in common which they do not share with *G. oxycephalum*. The latter may be distinguished from these more northern species on the basis of any one of these characteristics. It appears evident, therefore, that the relations of *Gonyosoma oxycephalum* Boie are not with these northern species of *Elaphe*, and that two different genera are concerned.

Although this study is not of the comprehensive type needed to illuminate all of the complex relationships between the European, Asian, and North American snakes which have been allocated to *Elaphe* in the past, it does demonstrate the presence of at least two distinct and relatively unrelated groups in Eurasia which have long been considered indistinguishable. It also makes possible the retention of both generic names without necessitating a temporary allocation of the name *Gonyosoma* to all species. Abbreviated diagnoses of the two genera follow.

### **Gonyosoma** Wagler

*Gonyosoma* Wagler, 1828, *Descriptiones et Icones Amphibiorum*, (1) : Text to pl. 9 (type species, by monotypy, *G. viride* Wagler [= *Coluber oxycephala* Boie, 1827]).

*Diagnosis.*—A genus of colubrine snakes (*sensu* Dunn, 1928, *Bull. Antivenin Inst. Amer.* 2(1) : 18) differing from *Elaphe* Fitzinger in having dorsal scales with elongate apical pits, several paravertebral

reductions in the scale rows, and a loreal at least twice as long as high ; hemipenis with a patch of elongate spines opposite sulcus and proximal to a short spinose calyculate area (*vide* Cope, 1900 ; *Rep. U.S. nat. Mus.* 1898 : pl. 15, fig. 4) ; squamosal with an external tubercle ; haemal keel of midthoracic vertebrae extending posteriorly over neck of condylus.

### Elaphe Fitzinger

*Elaphe* Fitzinger, in Wagler, 1833, *Descriptiones et Icones Amphibiorum*, (3) : test to pl. 27 (type species, by monotypy, *E. parreyssii* Wagler [= *Coluber quatuorlineatus* Lacépède, 1789]).

*Diagnosis*.—A genus of colubrine snakes differing from *Gonyosoma* Wagler in having dorsal scales with rounded apical pits, midlateral reductions of the scale rows, and a loreal (when present) little longer than high ; hemipenis with a complete band of spines proximal to an extensive nonspinose calyculate area (*vide* Cope, *ibid* : pl. 14, fig. 2) ; squamosal smooth, without tubercle ; haemal keel of midthoracic vertebrae ending anterior to neck of condylus.

Since these two genera are distinguishable on the basis of any one of several apparently unrelated characters, it is here suggested that the Commission decline Robert Mertens' proposal to suppress the name *Gonyosoma* Wagler.

**10. Submission of a revised proposal for protecting the generic name "Elaphe" Fitzinger, 1833, without suppressing the name "Gonyosoma" Wagler, 1828, under the Plenary Powers:** At the close in November 1956 of the Prescribed Six-Month Waiting Period following the publication in the *Bulletin of Zoological Nomenclature* of the application submitted in the present case a review of the comments received in regard to that application was undertaken by the Secretary for the purpose of determining the procedure which the International Commission should be invited to adopt in dealing with this case. Mr. Hemming took note that, while there was general agreement among the specialists concerned that it was desirable that the use of the generic name *Elaphe* Fitzinger should not be disturbed, all but one of those specialists were of the opinion that it was neither necessary nor desirable

that for this purpose the generic name *Gonyosoma* Wagler should be suppressed by the Commission under its Plenary Powers, these specialists taking the view that on the next revision of the large genus *Elaphe* Fitzinger it was likely that *Gonyosoma* Wagler would be split off as a distinct genus and consequently that the name *Gonyosoma* would cease to be a threat to the name *Elaphe*. In these circumstances Mr. Hemming suggested to Professor Mertens that the end which he had had in view in submitting his application would be met if the proposal for the suppression under the Plenary Powers of the name *Gonyosoma* Wagler were to be dropped, that recommendation being replaced by a proposal that a direction be given under the same Powers that the above name was "not to be used in preference to the name *Elaphe* by workers who hold that the type species of the two genera are congeneric". Professor Mertens accepted the foregoing proposal, thereby making it possible for Mr. Hemming to recommend to the Commission the adoption of a settlement which had now become unopposed. The foregoing proposal was accordingly embodied by Mr. Hemming in a brief note which was later annexed as Note 4 to the Voting Paper issued in the present case (paragraph 9 below). In this Note Mr. Hemming recommended also that the name *Gonyosoma* Wagler, endorsed as indicated above, be placed on the *Official List of Generic Names in Zoology*.

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

**11. Issue of Voting Paper V.P.(56)48 :** On 30th November 1956 a Voting Paper (V.P.(56)48) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the names *Elaphe* Fitzinger, 1833, and *Gonyosoma* Wagler, 1828, as set out in Points (1) to (3) in para-

graph 8 on page 348 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 *Opinion*] subject to the modification set out in Note 4 overleaf” [i.e. the Note referred to in paragraph 10 of the present *Opinion*].

**12. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd March 1957.

**13. Particulars of the Voting on Voting Paper V.P.(56)48 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)48 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) :*

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

(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, one (1) :*

Miller.



**14. Declaration of Result of Vote :** On 3rd March 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)48, signed a Certificate that the Votes cast were as set out in paragraph 13 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.

**15. Preparation of the Ruling given in the present " Opinion " :** On 4th July 1957, 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)48.

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

*Elaphe* Fitzinger, 1833, in Wagler, *Descr. Icon. Amph.* (3) : expl. pl. 27

*Gonyosoma* Wagler, 1828, *Descr. Icon. Amph.* (1) : expl. pl. 9  
*oxycephalus*, *Coluber*, Boie, 1827, *Isis* (Oken) **1827** : 537

*quatuorlineatus*, *Coluber*, Lacépède, 1789, *Hist. nat. Quadrup. ovip. Serpens* **2** : 82

*sauromates*, *Coluber*, Pallas, [1814], *Zoographia rosso-asiat.* **3** : 42

**17. Family-Group-Name Problem :** As stated in the application submitted in the present case (in paragraph 7 of the paper reproduced in the first paragraph of the present *Opinion*), no nominal family-group taxon has been established with *Elaphe* Fitzinger, 1833, as type genus. The same is true as regards the nominal genus *Gonyosoma* Wagler, 1828.

**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 Ninety (490) of the International Commission on Zoological Nomenclature.

DONE in London, this Fourth day of July, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

Key

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

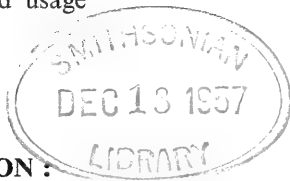
*Edited by*

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

VOLUME 17. Part 13. Pp. 197—208

## OPINION 491

Interpretation under the Plenary Powers of the nominal species *Palaeopsylla daea* Dampf, 1910 (Class Insecta, Order Siphonaptera) for the purpose of validating accustomed usage



LONDON :

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

Price Eight Shillings

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 491

### 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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 491

### INTERPRETATION UNDER THE PLENARY POWERS OF THE NOMINAL SPECIES "PALAEOPSYLLA DAEA" DAMPF, 1910 (CLASS INSECTA, ORDER SIPHON- APTERA) FOR THE PURPOSE OF VALIDATING ACCUSTOMED USAGE

**RULING** :—(1) Under the Plenary Powers it is hereby directed that notwithstanding the fact that the name *Palaeopsylla daea* Dampf, 1910 (Class Insecta, Order Siphonaptera), was stated by its author to be a substitute for the invalid name *Typhlopsylla sibirica* Wagner, 1901, the nominal species so named is to be interpreted by reference to the specimens described by Dampf on page 633 and figured as Figs. Q, R, S, T, U and V in his original description of the foregoing nominal species.

(2) 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) *daea* Dampf, 1910, as published in the combination *Palaeopsylla daea*, as defined by the lectotype selected by Hopkins (G.H.E.) (1956 : 351, paragraph 9) from among the specimens specified under the Plenary Powers in (1) above to be the standard of reference for the interpretation of the nominal species so named (Name No. 1438) ;
- (b) *aspalacis* Jordan, 1929, as published in the combination *Amphipsylla aspalacis* (Name No. 1439) ;

(3) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name No. 472 :—

*sibirica* Wagner, 1901, as published in the combination *Typhlopsylla sibirica* (a junior secondary homonym in the genus *Amphipsylla* Wagner, 1909, of *sibirica* Wagner, 1898, as published in the combination *Ctenopsylla sibirica*).

#### I. THE STATEMENT OF THE CASE

On 23rd June 1954, Mr. G. H. E. Hopkins (*British Museum (Natural History), The Zoological Museum, Tring*) submitted a preliminary application to the International Commission on Zoological Nomenclature for the interpretation under the Plenary Powers of the nominal species *Palaeopsylla daea* Dampf, 1910 (Class Insecta, Order Siphonaptera) for the purpose of validating the use of the above name in its accustomed sense. Following correspondence between the applicant and the Secretary on certain questions of detail the following revised application was submitted on 24th September 1954 :—

**Proposed use of the Plenary Powers to secure the interpretation of the nominal species “*Palaeopsylla daea*”, Dampf, 1910 (Class Insecta, Order Siphonaptera) in a manner consistent with the universally accepted use of that name**

By G. H. E. HOPKINS, O.B.E., M.A.

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

Wagner published in 1901 (usually incorrectly quoted as 1900) in *Hor. Soc. ent. ross.* 35 : 26, pl. 1, figs. 3, 4, the description of a single female flea which he named *Typhlopsylla sibirica* and which is now

referred to the genus *Amphipsylla*. The specific name is a secondary homonym of *Ctenopsylla sibirica* Wagner, 1898, which is also an *Amphipsylla*.

2. Dampf, 1910 (*Zool. Jb. Suppl.* **12** : 633, figs. Q, R, S, T, U, V) described and figured very fully both sexes of a species which he named *Palaeopsylla daea*, and which is also an *Amphipsylla*. Unfortunately he proposed this name in the form "*Palaeopsylla daea* nom. nov. (= *Palaeopsylla sibirica* Wagner, 1900, nec. *P. sibirica* (Wagner, 1898))". Some of Dampf's original material is in the British Museum collection of fleas at Tring and none survives in the Breslau Zoological Museum, whence his specimens were obtained.

3. Wagner, 1912 (*Rev. russe Ent.* **12** : 577) points out differences between his *Typhlopsylla sibirica* and Dampf's material. He evidently doubts their being the same and clearly regards the name *daea* as applying to Dampf's specimens if the two should prove different.

4. Ioff and Tiflov, 1939 (*Rev. Microbiol., Saratov* **16** : 407) record having examined the holotype of "*Amphipsylla sibirica* W. 1900 (nec 1898 !)" and state that they consider it to be the same as *Amphipsylla aspalacis* Jordan, 1929 (*Novit. zool.* **35** : 161, pl. 10, figs. 22, 24) and different from *A. daea* Dampf, 1910. They clearly regard the name *daea* as applying to the specimens described by Dampf (not to Wagner's holotype of *Typhlopsylla sibirica*), and all subsequent writers on fleas have applied the name in the same way.

5. As originally used, therefore, the name *Amphipsylla daea* (Dampf), 1910 applies to two species, the one which Dampf actually had before him and which he described, and the one which he erroneously thought he was redescribing. His application of the name to the later element has page precedence, but no subsequent author who has recognized the distinctness of the two elements has applied the name *daea* to anything but the material Dampf actually described.

6. Until quite recently the question of which element included by Dampf under the name *daea* should continue to bear that name after the discovery that the two elements were not the same would have been open to doubt, for already in 1948 the Thirteenth International Congress of Zoology, Paris, had given notice that the general question involved would be considered as a special problem by the next (Copenhagen) Congress in 1953, and had invited specialists to submit statements of their views as to the nature of the decision which it was desirable should be taken (see 1950, *Bull. zool. Nomencl.* **4** : 499—502 ; Hemming, 1952, *ibid.* **7** : 119—130). Thus, up to 1953 the *Règles* contained no clear

guidance as to the course which should be followed in a case of this kind. On the one hand it would have been possible to apply the "First Reviser" Principle, which would have ensured the retention of the name *daea* for the species which Dampf actually had before him. On the other hand, it would have been possible to take the view either that this case should be dealt with in accordance with the Page Precedence Principle or that, as the name in question had been expressly published as a substitute name, it must be held to adhere to the species to which the name so replaced was applicable. In either of these cases the name *daea* would have applied to the species described by Wagner in 1901 and not to the species to which Dampf intended it to apply. Applying presumably the First Reviser Principle, all authors have used the name *daea* for the species which Dampf had before him when he published that name.

7. The question of principle underlying this case was settled by the Fourteenth International Congress of Zoology, Copenhagen, 1953, when it decided that in cases of the present kind "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). Under this decision the name *Amphipsylla daea* (Dampf), 1910, must (if the normal priorities of the *Règles* are to be applied) be transferred from the species which has always borne it (which will be left nameless) to the species which has always been known as *Amphipsylla aspalacis* Jordan, 1929. Further aggravations of the situation are (a) that the holotype of *Amphipsylla sibirica* (Wagner), 1901 (and therefore of *A. daea* (Dampf), 1910, under strict application of the *Règles*) is a female, that females in the genus *Amphipsylla* are extremely difficult to determine, and that in consequence the subjective identification of *aspalacis* with *sibirica* Wagner, 1901 (*nec* 1898) will always remain arguable, and (b) that the Soviet entomologists (in whose territory all the fleas mentioned in this application occur) will certainly continue to use the name *daea* for the species which Dampf actually had before him and which has always borne the name.

8. If nothing is done to remedy the foregoing situation, we are liable to find ourselves faced with a completely farcical state of affairs, in which East European authors will use the name *daea* for one species, West European authors will use it for another, while in the case of a German author it will be necessary to know his place of residence before one could guess to which species he was applying the name. The extreme confusion which would result from the application of the normal provisions of the *Règles* in this case is self-evident. This is therefore, in my opinion, pre-eminently a case calling for the use by the International Commission of its Plenary Powers. As regards the form of that action, the course which I recommend is that the Commission should direct that the nominal species *Palaeopsylla daea* Dampf, 1910, is not to be treated as being objectively identical with the nominal species



*Typhlopsylla sibirica* Wagner, 1901, but is to be interpreted by reference to the specimens described and figured by Dampf in 1910 when he first published the specific name *daea*. The adoption of this course will provide a firm legal basis for the interpretation of the nominal species *Palaeopsylla daea* Dampf in a manner consistent with the universal usage of subsequent authors.

9. Dampf himself did not designate a holotype for this species and accordingly the material on which he based his description of this species in 1910 will all become syntypes under the decision now asked for. That material contains only one male specimen and that specimen I now select as the lectotype of the above species. This specimen (together with some females from the Dampf series) is in the British Museum (Natural History) collection of fleas now housed at the Zoological Museum, Tring. The terminalia of this specimen agree with those shown by Dampf in figure T in his paper of 1910 (: 639). Up till now this specimen has borne on its labels the following particulars : (1) "Palaeopsylla daea Dampf, 1910" ; (2) "? Transbaikalien" ; (3) "Arctomys bobac" ; (4) "Dybowski, received from Breslau Zoological Museum" ; (5) C. Rothschild Coll. Brit. Mus. 1923, 615". To these particulars has now been added :—"Lectotype of *Palaeopsylla daea* Dampf, 1910, *Zool. Jahrb.*, Suppl. **12** : 633, selected by G. H. E. Hopkins, 1956". I ask that in completion of the action asked for in the present application, the Commission should make express reference to this lectotype selection, when placing on the *Official List of Specific Names in Zoology*, the specific name *daea* Dampf, 1910, as published in the combination *Palaeopsylla daea*, and as defined under the Plenary Powers in the manner recommended in paragraph 8 above.

10. The proposal now submitted is therefore that the International Commission on Zoological Nomenclature should :—

(1) use its Plenary Powers to direct that, notwithstanding the fact that the name *Palaeopsylla daea* Dampf, 1910, was stated by its author to be a substitute for the invalid name *Typhlopsylla sibirica* Wagner, 1901, the nominal species so named by Dampf is to be interpreted by reference to the specimens described and figured by that author at the time when he published the name *Palaeopsylla daea* ;

(2) place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—

*daea* Dampf, 1910, as published in the combination *Palaeopsylla daea* and as defined by the lectotype selected by Hopkins (G.H.E.) in paragraph 9 of the present application from among the specimens which, under the action under the

Plenary Powers, recommended in (1) above, will become the syntypes of the species so named ;

- (3) place the under-mentioned specific name on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—*sibirica* Wagner, 1901, as published in the combination *Typhlopsylla sibirica* (invalid in the genus *Amphipsylla* Wagner, 1909, as a junior secondary homonym of *sibirica* Wagner, 1898, as published in the combination *Ctenopsylla sibirica*).

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt of Mr. Hopkins' preliminary application the question of the interpretation under the Plenary Powers of the nominal species *Palaeopsylla daea* Dampf, 1910 (Class Insecta, Order Siphonaptera) was allotted the Registered Number Z.N.(S.) 846.

**3. Publication of the present application :** The present application was sent to the printer on 30th November 1955 and was published on 9th May 1956 in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Hopkins, 1956, *Bull. zool. Nomencl.* **11** : 349—352).

**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 9th May 1956 (a) in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Mr. Hopkins'

application was published) and (b) to the other prescribed serial publications. In addition such Notice was given to four general zoological serial publications and to seven entomological serials in Europe and America.

**5. No objection received :** No objection to the action proposed in the present case was received from any source.

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

**6. Issue of Voting Paper V.P.(56)46 :** On 30th November 1956 a Voting Paper (V.P.(56)46) was issued in which the Members of the Commission were invited to vote either for, or against, " the proposal relating to the specific name *daea* Dampf, 1910, as published in the combination *Palaeopsylla daea*, as set out in Points (1) to (3) in paragraph 10 on pages 351 and 352 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 *Opinion*].

**7. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd March 1957.

**8. Particulars of the Voting on Voting Paper V.P.(56)46 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)46 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) :*

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

(b) *Negative Votes :*

None ;

(c) *Prevented from Voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

(c) *Voting Papers not returned :*

None.

**9. Declaration of Result of Vote :** On 3rd March 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)46, 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 to the “ Official List of Specific Names in Zoology ”** of the specific name “ aspalacis ” Jordan, 1929, as published in the combination “ *Amphipsylla aspalacis* ” : On

29th June 1957, Mr. Hemming executed a Minute directing that under the "Completeness of Opinions" Rule, the specific name *aspalacis* Jordan, 1929, as published in the combination *Amphipsylla aspalacis*, being (i) a name involved in the present case and (ii) the oldest available name for the taxon concerned, be placed on the *Official List of Specific Names in Zoology* in the Ruling to be prepared for the *Opinion* embodying the decision taken by the Commission on the case relating primarily to the name *Palaeopsylla daea* Dampf, 1910, by its vote on Voting Paper V.P.(56)46.

**11. Status of the specific name "sibirica" Wagner, 1898, as published in the combination "Ctenopsylla sibirica" :** On 29th June 1957, Mr. Hemming placed the following note on the Commission's File Z.N.(S.) 846 relating to the present case :—

**The specific name "sibirica" Wagner, 1898, as published in the combination "Ctenopsylla sibirica"**

In order to obviate the risk of any question being raised as to why under the "Completeness of Opinions" Rule the specific name *sibirica* Wagner, 1898, as published in the combination *Ctenopsylla sibirica*, being an available name involved in the case submitted by Mr. Hopkins regarding the name *Palaeopsylla daea* Dampf, 1910, was not recommended in Voting Paper V.P.(56)46 for addition to the *Official List of Specific Names in Zoology*, it is deemed desirable to place on record that the above name was involved also in an application (Z.N.(S.) 654) previously submitted by Mr. Hopkins in regard to the generic name *Trichopsylla Kolenati*, 1863, and was placed on the above *Official List* as Name No. 692 by the Ruling given in *Opinion* 388, the *Opinion* embodying the Commission's decision in regard to the foregoing case.

**12. Preparation of the Ruling given in the present "Opinion" :** On 4th July 1957, 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)46, subject to the minor adjustment (regarding the specific name *aspalacis* Jordan, 1929 (*Amphipsylla*)) specified in the Minute executed by the Secretary on 29th June 1957, the text of which is reproduced in paragraph 10 of the present *Opinion*.

**13. 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* :—

- aspalacis*, *Amphipsylla*, Jordan, 1929, *Novit. zool.* **35** : 161, pl. 10, figs. 22, 24  
*daea*, *Palaeopsylla*, Dampf, 1910, *Zool. Jb.*, Suppl. **12** : 633, figs. Q, R, S, T, U, V  
*sibirica*, *Typhlopsylla*, Wagner, 1901, *Hor. Soc. ent. ross.* **35** : 26, pl. 1, figs. 3, 4

**14.** The following is the reference for the selection of a lecto-type for a nominal species specified in the Ruling given in the present *Opinion* :—

- |                              |                              |
|------------------------------|------------------------------|
| For <i>Palaeopsylla daea</i> | Hopkins (G.H.E.), 1956,      |
| Dampf, 1910                  | <i>Bull. zool. Nomencl.</i>  |
|                              | <b>11</b> : 351, paragraph 9 |

**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 Ninety-One (491) of the International Commission on Zoological Nomenclature.

DONE in London, this Fourth day of July, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

Ref.

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

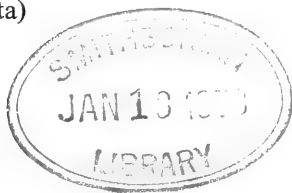
*Edited by*

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

VOLUME 17. Part 14. Pp. 209—254

## OPINION 492

Suppression under the Plenary Powers of the family-group name AUCELLIDAE Lanusen, 1897, and rejection of an application for use of the same Powers to validate the generic name *Aucella* Keyserling, 1846, by suppressing the generic name *Buchia* Rouillier, 1845 (Class Lamellibranchiata)



LONDON :

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

**Price One Pound, Ten Shillings and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 492

### 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)

Professo 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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 492

**SUPPRESSION UNDER THE PLENARY POWERS OF THE FAMILY-GROUP NAME "AUCELLIDAE" LANUSEN, 1897, AND REJECTION OF AN APPLICATION FOR USE OF THE SAME POWERS TO VALIDATE THE GENERIC NAME "AUCELLA" KEYSERLING, 1846, BY SUPPRESSING THE GENERIC NAME "BUCHIA" ROUILLIER, 1845 (CLASS LAMELLIBRANCHIATA)**

**RULING :—**(1) The request for the suppression of the generic name *Buchia* Rouillier, 1845 (Class Lamelli-branchiata) under the Plenary Powers is hereby rejected.

(2) Under the Plenary Powers the family-group name AUCELLIDAE Lanusen, 1897 (type genus : *Aucella* Keyserling, 1846) is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(3) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1231 :—

*Buchia* Rouillier, 1845 (gender : feminine) (type species, by monotypy : *Avicula mosquensis* von Buch, 1844, as defined by the lectotype selected by Pavlov (1907))

(4) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* with the Name No. 1440 :—

*mosquensis* von Buch, 1844, as published in the combination *Avicula mosquensis* and deferred as specified in (3) above (specific name of type species of *Buchia* Rouillier, 1845)

(5) The under-mentioned generic name is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* with the Name No. 1058 :—

*Aucella* Keyserling, 1846 (a junior objective synonym of *Buchia* Rouillier, 1845)

(6) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with Name No. 196 :—

BUCHIIDAE COX (L.R.), 1953, as validated by the suppression under the Plenary Powers in (2) above of the senior objective synonym AUCELLIDAE Lanusen, 1897 (type genus : *Buchia* Rouillier, 1845)

(7) 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 No. 230 :—

AUCELLIDAE Lanusen, 1897, as suppressed under the Plenary Powers in (2) above (type genus : *Aucella* Keyserling, 1846)

## I. THE STATEMENT OF THE CASE

On 24th March 1954, Dr. J. A. Jeletzky (*Geological Survey of Canada, Ottawa, Canada*) submitted a preliminary application to the International Commission on Zoological Nomenclature for the use of the Plenary Powers for the purpose of validating the generic name *Aucella* Keyserling, 1846 (Class Lamellibranchiata) by suppressing under the same Powers the name *Buchia* Rouillier, 1845, which for many decades had been totally overlooked but

which in 1929 had been substituted by some authors for its objective junior synonym *Aucella* Keyserling. Consequent upon correspondence with the Office of the Commission, Dr. Jeletzky later revised his application in certain minor respects. The application so revised was formally submitted to the International Commission by Dr. Jeletzky on 9th January 1955. It was as follows :—

**Proposed use of the Plenary Powers to preserve the generic name "Aucella" Keyserling, 1846 (Class Lamellibranchiata, Order Anisomyaria, Family Aviculidae) and the specific name of its type species "Avicula mosquensis" von Buch, 1844, and to suppress the generic name "Buchia" Rouillier, 1845\***

By J. A. JELETZKY

(*Geological Survey of Canada, Ottawa, Ontario, Canada*)

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 very well-known generic name *Aucella* Keyserling, 1846 (*Wiss. Beobacht. Petschora*, 1846 : 297—301, pl. 16) which, in the absence of intervention by the Commission, must fail as a junior objective synonym of the long-overlooked or ignored name *Buchia* Rouillier, 1845 (*Bull. Soc. imp. Nat. Moscou* 18 : 289), for the species *Avicula mosquensis* von Buch, 1844 (*Neue Jahrb. f. Min.* 1844 : 537) is the type species of *Aucella* by selection by Herrmannsen (1852, *Ind. Gen. Malac.*, Suppl. : 14) and of *Buchia* by monotypy. The original material of von Buch has been re-studied by Pavlov (1907 : 23—25, pl. II, figs. 5—7) who selected the specimen shown as figs. 5a—5c on plate II to be the lectotype of this species. The need for the protection of the name *Aucella* Keyserling is one of urgency if serious confusion is to be avoided, for, while some palaeontologists have attempted to replace this name by the name *Buchia* Rouillier, the majority of palaeontologists and biostratigraphers throughout the world still adhere to the name *Aucella*.

2. Representatives of the genus *Aucella* (Class Lamellibranchiata, Order Anisomyaria, Family AVICULIDAE) are distributed virtually world wide in rocks of the Upper Jurassic (from Oxfordian to Portlandian stage inclusive) and early Lower Cretaceous (from Infravalangian to Hauterivian stage inclusive) age, and are perhaps the most

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conspicuous faunal element of rocks of this age throughout the extended circumpolar region. The genus includes over one hundred of recognised species and varieties, most of which are fair to excellent zonal fossils with an extremely wide (mostly intercontinental to circumboreal) horizontal distribution and a great facies tolerance. In particular for the extended circumpolar region of the upper Jurassic and early Lower Cretaceous times, which is generally referred to as the Boreal province, the stratigraphical importance of *Aucella* species appears to be second only to that of the ammonites. In this region a stratigrapher often does not meet any diagnostic forms but *Aucella* in the rocks of that age and must needs to base his correlations on the representatives of this genus alone. Also in the Indo-Pacific region species of *Aucella* provide valuable zonal fossils for the rocks of the above age.

3. Because of its geographical distribution and stratigraphical importance the name *Aucella* entered most textbooks on stratigraphical palaeontology, historical geology, textbooks and treatises of invertebrate palaeontology (including many elementary texts), and manuals of index fossils and regional stratigraphy throughout the world before its validity was challenged. It is not possible to give a complete list of publications in which this name appears but the following selection of the most important references known to the writer gives an idea of its truly universal use.

- (i) Textbooks, treatises, and manuals of stratigraphical palaeontology, historical geology, and regional stratigraphy : (a) England : Neaverson's *Stratigraphical Palaeontology* (1928 : 387) ; Gregory & Barrett's *General Stratigraphy* (1931 : 164—165) ; Stamp's *Introduction to the Stratigraphy of British Isles* (1931 : 164—165, 1950 : 248—259) ; (b) France : Haug's (1911) and Lapparent's (1900) classical treatises of geology ; Gignoux's *Geologie Stratigraphique* (1933, 1944, 1950 : 345, 376—377, 429, 449) ; (c) Germany : all editions of Kayser's *Grundzüge der Geologie* (incl. 1924) ; Kayser & Brinkmann's *Grundzüge der Geologie* (1948 : 210, pl. 40(2)) ; Salomon's *Grundzüge der Geologie* (1926, II : 413, 374, fig. 19) ; Daqué's *Wirbellose der Jura* (1933, 1937) and *Wirbellose der Kreide* (1944) ; Bubnoff's *Geologie von Europa* (1935) ; (d) U.S.S.R. : *Standard treatises of the general Historical Geology* by Borissiak (1935 : 256, 259—260, 270—274, 293) ; Masarovich (1937) ; Korovin (1941 : 303, 306, 322, 326, 342, 346, fig. 154—158), and Strachov's (1938, 1948, 2 : 166, pl. XXII (3) and : 204, pl. XXIV (3)) ; Masarovich's (1938) and Arkhangelsky's (1935, 2 : 18—24, 27, 50, 52, 54, 61) standard manuals of the Geology and Stratigraphy of U.S.S.R. ; (e) U.S.A. : Pearson & Schuchert's (1914 : 848, 850, 871—872, 884, fig. 464) ; Longwell's *et al.* (1941, 1950 : 207, pl. VI—7) ; Dunbar's (1949, pl. 14—16), and Grabau's (1920 : 653, 666, 669—670, 709, 714, 727, fig.

1651) standard textbooks of historical geology and Willis (1912) *Index to the Stratigraphy of North America*; (f) New Zealand: Marshall's *Geology of New Zealand* (1912: 187, fig. 104); (g) Brazil: de Oliveira & Leonardo's *Geologia do Brasil* (1943: 565); (h) Indonesia: van Bemmelen's *The Geology of Indonesia, General Geology* (1949: 65—66, 69—71, 74).

- (ii) Textbooks and treatises of invertebrate palaeontology: (a) England: Wood's *Palaeontology* (1950: 253, and the older editions); (b) France: Piveteau's *Traité de Palaeontologie*, II (1952: 276, fig. 69); (c) Germany: all editions of the classical Zittel's *Grundzüge der Palaeontologie*, including Zittel/Broily (1924) and his *Handbuch der Palaeontologie*; (d) U.S.S.R.: all older standard textbooks of palaeontology, e.g., such as Borissiak (1905—1906), Yakovlev (1918, 1928); Russian revision of Zittel's *Grundzüge* (Zittel/Riabinin, 1934: 611—612, text-fig. 1016); latest Soviet textbooks of palaeontology by Ilovaisky (1937) and Davitasvili (1941, 1949: 244, fig. 234); (e) U.S.A.: Zittel/Eastman's English Revision of Zittel's *Grundzüge* (1912).

4. The number of papers and monographs devoted to the description of representatives of *Aucella* or dealing with its individual species among the other faunal groups, runs into several hundreds. Though it is not possible to list them all here, a selected bibliography of most important modern papers appended to this paper gives an idea about the number of *Aucella* papers and monographs involved. The older literature on the subject is well covered in Pavlow's (1907) monograph of the genus.

5. Thus, since its first proposal and until 1929—1930 the name *Aucella* Keyserling, 1846, was in very frequent and constant use throughout the world and the writer does not know of a single case where the name *Buchia* Rouillier, 1845, was used, although it was known practically to everybody (see for example Lahusen, 1888; Pavlow, 1907; Pompeckj, 1901).

6. As the greater part of the publications listed above was published subsequent to the previously mentioned attempt to discredit the name *Aucella*, it appears quite evident that the majority of leading palaeontologists and biostratigraphers throughout the world rejected summarily this attempt. Subsequent to this latter date only the following textbooks, treatises, and manuals known to the writer adopted the name *Buchia*: (1) Germany: Teichert's *Geology of Greenland* (1939); (2) U.S.A.: Shimer & Shrock's *Index Fossils of North America* (1943: 393—394, pl. 153, figs. 12—16) and Moore's *et al. Invertebrate Fossils* (1952: 432—433, figs. Ia—Ib); (3) Australia: David's *Geology of Australia* (1950: 464, 468).

7. Similarly among the authors of scientific papers and monographs on palaeontology only a few have accepted the name *Buchia* (e.g., Crickmay, 1933; Spath, 1935, 1947, 1952; Donovan, 1953; Teichert, 1939, 1941; Glaessner, 1941; Marwick, 1953), while some others (e.g., Anderson, 1938: 102; 1945: 963; Maync, 1949: 14) have emphatically rejected its use. Most of palaeontologists and biostratigraphers the world over have, however, simply ignored the issue and proceeded to use the well established name *Aucella* indiscriminately. In addition to the above given selection of textbooks, treatises, and manuals, see papers of Bodylevsky (1936, 1943), Frebold (1933, 1953), Frebold & Stoll (1937), Krumbeck (1934), Imlay (1953), Imlay & Reeside (1954), McLearn & Kindle (1950), to mention only a few. The doubts of Stewart (1930) quoted below as to the possibility of the universal acceptance of the name *Buchia* were, as we see, wholly justified.

8. Furthermore, it should be noted that most of the modern authors who have adopted the name *Buchia* have either used it concurrently with *Aucella* (e.g., *Buchia* ("Aucella")) throughout their papers or have indicated in some other way that they use it instead of this latter name. Thus, they have clearly shown that they are well aware of the fact that the name *Buchia* is likely to be completely unfamiliar to their readers.

9. Cox (1929: 147) apparently was the first to accept the priority of the name *Buchia* but he did not give any reasons.

10. In 1930 Stewart (1930: 106—108) made another attempt to revindicate the name *Buchia* presuming it to have priority over that of *Aucella* and has made the following statement on the subject:

The name *Aucella* was proposed by Keyserling in 1846 (*Wissenschaft. Beobacht. Petschora*, 1846: 297—301, pl. 16) for a number of species including *Avicula mosquensis* von Buch which was later designated as the type species (Herrmannsen, *Ind. Gen. Malac. Suppl.* 1852: 14).

The name *Buchia* was proposed by Rouillier in 1845 (1845 *Bull. Soc. Imp. Nat. Moscow*, 18: 289)† for the already figured *Avicula mosquensis* von Buch as the monotype species. He also published illustrations of this fossil the following year, but without an explanation of the plate (*ibid.* 1846, 19(2): pl. D, fig. I, 2). In 1848, an

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† "Le premier Secrétaire Mr. le Professeur Rouillier, a présenté un exemplaire caractéristique de l'avicula mosquensis récemment décrite par M. de Buch. Mr. Rouillier trouvant que ce fossile diffère par ses caractères génériques de toutes les coquilles connues jusqu'à présent propose d'en constituer un nouveau genre sous le nom de *Buchia*, en l'honneur de Mr. de Buch qui le premier a montré les caractères distinctifs de l'*Inoceramus dubius*."

explanation of the plate was published (Rouillier, *ibid.*, 1848, **21**(2) : 272) and it was also pointed out that the name *Buchia* had priority over *Aucella* Keyserling, 1846. The 1848 reference to *Buchia* was listed by Lahusen (*Mem. Com. Geol.*, 1888, **8**(1) : 2) and Pavlow (*Soc. Imp. Nat. Moscow Nou. Mem.* 1907, **17**(1) : 3), while Pompeckj (1901 *N. Jahrb. Min. Beil.* Bd. **14** : 321) cited the 1845 reference but refused to accept the older name. The validity and priority of *Buchia* is clear and there seems no ground for not recognising it unless the name be arbitrarily set aside in favour of *Aucella* which is so well known. Rouillier also claimed to have published this name in "Discours 1845, p. 52", apparently later than in the *Bulletin*. This Discours probably refers to Rouillier's paper on the fauna of the Moscow region which was also mentioned by Pavlow (*op. cit.* : 23). I have not seen this paper. Erman published an extensive resumé of it in 1847 (*Arch. Wissenssch. Kunde Russland* **5** : 443—482) in which *Avicula mosquensis* is mentioned on pp. 460, 461, but *Buchia* is not mentioned. According to Pavlow, however, *Buchia mosquensis* was mentioned on page 52 of the original and a reference to von Buch's figures was cited so that the name was probably proposed twice by Rouillier in 1845 though the second time may have been in the Russian language.

In order to avoid the transfer of familiar generic names from one group to another, the International Commission on Zoological Nomenclature has waived the rules for *Holothuria* and *Physalia* and *Spirifer* (*Opin.* 76, 80, 100). The Commission may likewise decide to retain *Aucella*. However, since the name *Aucella* is not to be transferred to some other group but suppressed for an earlier name, I think it unlikely that the Commission will ignore the earlier *Buchia* in favour of *Aucella*. *Buchia* should have been adopted long ago when the change would have been relatively easy. Now it will be many years, if ever, before the change will be universally accepted.

11. The writer deplors the action of Stewart (1930) in accepting the priority of *Buchia* instead of continuing to use the name *Aucella*, all the more so in view of the fact that he actually considered the question of an appeal being made to the International Commission to validate the latter name. Clearly, the right thing for him to have done would have been to ask the Commission to preserve the name *Aucella* under its Plenary Powers and to have continued to use that name while his application was under consideration by the Commission.

12. Even if the name *Buchia* should be ruled available by the Commission from the second paper of Rouillier (1845a), or the above mentioned anonymous lay report should be considered by the Commission as a valid scientific publication, the writer does not

consider it advisable to give *Buchia* the priority over *Aucella*. The proper course would then appear to be to rule the former name arbitrarily out, under the suspension of Rules, in favour of *Aucella*. Indeed, as demonstrated in the previous pages of this application, and as recognised even by Stewart (1930) himself, the latter name has a well documented, long established record; it has been used by all authors concerned throughout the world ever since its proposal, has entered all important palaeontological monographs, textbooks, stratigraphical manuals, etc. Even now, 25 years after the unfortunate attempt to discredit it, the name *Aucella* is still in general use among palaeontologists and stratigraphers of the world, the adherents of the name *Buchia* being in a clear minority. In the opinion of the writer the name *Aucella* is so deeply rooted in the literature that no Rule of Priority should be invoked now to upset the usage. As already stated by Anderson (1938 : 102) and by Stewart (see quotation in paragraph 10 above) any such attempt is likely to produce greater confusion than uniformity.

13. Thus, it is proposed that the name *Buchia* be suppressed under the Plenary Powers in favour of *Aucella*, and that the name *Aucella* be added to the *Official List of Generic Names in Zoology*. This is to be done either because the name *Buchia* is not available from the original publication, or because of a well documented and long established, and still current, usage of the name *Aucella*. It is hoped that it will be possible for the International Commission to reach an early decision on these questions, as such a decision is urgently required in connection with the preparation of the forthcoming international Treatise on Invertebrate Palaeontology.

14. The International Commission is accordingly asked :—

- (1) to suppress the under-mentioned generic name under its Plenary Powers for the purposes of the Law of Priority but not for those of the Law of Homonymy :—*Buchia* Rouillier, 1845 ;
- (2) to place the under-mentioned generic name on the *Official List of Generic Names in Zoology* :—*Aucella* Keyserling, 1846 (gender : feminine) (type species, by selection by Herrmannsen (1852) : *Avicula mosquensis* von Buch, 1844) ;
- (3) to place the under-mentioned generic name on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—*Buchia* Rouillier, 1845, as suppressed under the Plenary Powers under (1) above ;
- (4) to place the under-mentioned specific name on the *Official List of Specific Names in Zoology* :—*mosquensis* von Buch, 1844, as published in the combination *Avicula mosquensis*, as defined



by the lectotype selected by Pavlow (1907) (specific name of type species of *Aucella* Keyserling, 1846).

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## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt in 1954 of Dr. Jeletzky's preliminary application, the question of the use of the Plenary Powers for the purpose of validating the generic name *Aucella* Keyserling, 1846 (Class Lamelli-branchiata), was allotted the Registered Number Z.N.(S.) 827.

**3. Publication of the present application :** The present application was sent to the printer on 2nd February 1955 and was published on 31st May of the same year in Part 5 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Jeletzky, 1955, *Bull. zool. Nomencl.* 11 : 158—166).

**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 issued on 31st May 1955 (a) in Part 5 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Jeletzky's application was published) and (b) to the other prescribed serial publications. In addition such Notice was given to four general zoological serial publications and to three palaeontological serials in Europe and America respectively.

**5. Extension by three months of the Prescribed Six-Month Waiting Period following publication of the present application in the "Bulletin of Zoological Nomenclature" :** In view of the

fact that, as was clear, opinion among specialists was divided as to the action which it was desirable that the International Commission should take in the present case, the Secretary took the view that it would be of advantage to extend by three months the Prescribed Six-Month Waiting Period in the present case in order to afford a fuller opportunity for specialists to furnish comments on the proposals submitted by Dr. Jeletzky. Accordingly, on 31st December 1955, Mr. Hemming, as Secretary, executed a Minute directing that the Prescribed Waiting Period be extended for a further period of three calendar months to 28th February 1956.

**6. Comments Received :** During the Prescribed Waiting Period as extended by the direction given in the Minute executed by the Secretary on 31st December 1955 (paragraph 5 above) comments on the application submitted by Dr. Jeletzky were received from thirteen specialists. Of these, six supported Dr. Jeletzky's proposals, six objected to those proposals, while one did not express a definite opinion. The communications so received are reproduced in the following paragraphs.

**7. Support received from R. W. Imlay and John B. Reeside, Jr. (U.S. National Museum, Washington, D.C., U.S.A.) :** On 21st October 1955, Mr. R. W. Imlay and Mr. John B. Reeside, Jr. (both of the *U.S. National Museum, Washington, D.C., U.S.A.*) addressed the following letter in support of the application to the Office of the Commission :—

The undersigned wish to support the application of J. A. Jeletzky for the use by the Commission of its Plenary Powers to conserve the generic name *Aucella* Keyserling and to suppress the generic name *Buchia* Rouillier.

The actual priority of *Buchia* over *Aucella* seems to us highly dubious. Even if it were granted, there could result only the displacement by *Buchia* of the widely used and well understood name *Aucella*, and the writers see no approach to stability in such an upset. In America the species of the genus are common in the late Jurassic and early Cretaceous deposits, extending from Alaska along the Pacific Coast into Latin America. In all writings, except one paper by R. B. Stewart, one paper by C. H. Crickmay, and two text-books, the name *Aucella*

has been used for the genus, and we judge that nearly the same condition has prevailed elsewhere in the world. It seems to us that only confusion can come from the formal substitution of *Buchia* for *Aucella* and we therefore wish to record our hope that the Commission will rule for *Aucella*.

**8. Support received from Wolf Maync (Venezuelan Atlantic Refining Company, Caracas, Venezuela) :** On 9th January 1956, Dr. Wolf Maync (*Venezuelan Atlantic Refining Company, Caracas, Venezuela*) addressed the following letter to the office of the Commission in support of the present case :—

A few days ago I received a separate of Dr. Jeletzky's appeal to the International Commission for the preservation of the generic name *Aucella* Keyserling, 1846, in favor of *Buchia* Rouillier, 1845.

I fully endorse Dr. Jeletzky's viewpoint in this respect and sincerely believe that it would be most unfortunate to drop the time-honoured and world-wide used name *Aucella* in favor of the generally ignored term *Buchia*, in spite of the latter's actual priority. By far the greater part of authors throughout the world have long accepted the familiar name *Aucella* and it would create an unbelievable confusion if it should now at once be cancelled, after having been applied in countless publications for a great number of years. Every paleontologist and geologist is familiar with the term *Aucella* but not with the name *Buchia*.

I wish to stress once more that I positively support the opinion to retain the name *Aucella* in favor of *Buchia*.

**9. Two notifications of support and one objection communicated by Dr. Jeletzky :** In a letter dated 26th January 1956, Dr. Jeletzky notified the Office of the Commission that he had received comments on his application from three colleagues to whom he had communicated separates of the paper containing his application. The specialists concerned were :—(a) F. H. McLearn (*Senior Geologist (retired), Geological Survey of Canada*) ; (b) S. Wm. Muller (*Stanford University, School of Mineral Sciences, Stanford, California, U.S.A.*) ; (c) Curt Teichert (*Petroleum Geology Laboratory, Federal Center, Denver, Colorado, U.S.A.*). On receiving the foregoing letter, the Secretary informed Dr. Jeletzky that he would include these comments in the report

which would later be made to the International Commission but asked that as a preliminary Dr. Jeletzky should obtain the consent of the specialists concerned. In due course Dr. Jeletzky notified the Office of the Commission (*in litt.*, 5th April 1956) that he had complied with the foregoing request. Further particulars are given in paragraphs 10, 11, and 17 below.

**10. Support received from F. H. McLearn (Senior Geologist (retired), Geological Survey of Canada, Ottawa, Canada) :** In the letter dated 26th January 1956 referred to in paragraph 9 above Dr. Jeletzky submitted the following report on the intimation of support for the proposal for the preservation of the generic name *Aucella* Keyserling which he had received from Dr. F. H. McLearn (*Senior Geologist (retired), Geological Survey of Canada, Ottawa, Canada*) :—

With regard to the specialists' opinions on the case of *Aucella* versus *Buchia*, I have had three opinions expressed to me till now. Two of them are in favor of suppression of *Buchia* and retention of *Aucella*. One of them was given to me by Dr. F. H. McLearn, Senior Geologist (retired) of this Survey (i.e. the Geological Survey of Canada) and outstanding specialist on Mesozoic stratigraphy and palaeontology.

**11. Support received from S. Wm. Muller (Stanford University, Stanford, California, U.S.A.) :** On 15th May 1956, Dr. Jeletzky communicated to the Office of the Commission the following copy of a letter dated 26th April 1956 in support of the proposed validation of the generic name *Aucella* which he had received from Professor S. Wm. Muller (*Stanford University, School of Mineral Sciences, Stanford, California, U.S.A.*) :—

Thank you for your note of April 5th. By all means quote as much as you can from my correspondence that will serve the purpose.

I regret very much that the pressure of work prevents me from preparing a separate statement on behalf of *Aucella*.

**12. Support received from Hubert G. Schenck (Palo Alto, California, U.S.A.) :** On 21st February 1956, Dr. Hubert G. Schenck (*Palo Alto, California, U.S.A.*) addressed the following

letter to the Office of the Commission in support of the present case :—

I have read the statement prepared by Dr. J. A. Jeletzky, concerning *Aucella*, and I support his appeal.

My support is based on the fact that the name *Aucella* is widely accepted, whereas *Buchia* has not been widely recognised. For purely practical reasons, therefore, I feel that it would be a mistake to uphold *Buchia*.

**13. Objection received from C. A. Fleming and J. Marwick (New Zealand Geological Survey, Wellington, New Zealand) :** On 24th November 1955, Dr. C. A. Fleming (*New Zealand Geological Survey, Wellington, New Zealand*) communicated to the Office of the Commission the following comment by himself and Dr. J. Marwick, also of the New Zealand Geological Survey, in which these specialists expressed their objection to the proposals in the present case :—

Dr. J. A. Jeletzky's spirited proposal that the name *Buchia* Rouillier, 1845, be suppressed in favour of *Aucella* Keyserling, 1846, would have been very welcome if it had been implemented a few years after the first application of the rules to this case by Cox in 1929 and by Stewart in 1930. In the quarter century since these authors pointed out that *Buchia* is the earliest nomenclatorially valid name for the group typified by *Avicula mosquensis* von Buch, the name *Buchia* has been correctly applied by more and more systematists working on Mesozoic lamelli-brachs. The junior homonym *Aucella* has continued in use (as documented in detail by Jeletzky) in new editions of textbooks originally published before 1930 and in some new works published since that date, but *Buchia* is used in important textbooks such as those by Shiner and Shrock (1943) and by Moore, Lalicker and Fischer (1952). In general (but with exceptions) systematic paleontologists have applied the rules and used *Buchia* and stratigraphers have used the junior homonym *Aucella*.

We do not accept Jeletzky's claim that the majority of leading paleontologists and biostratigraphers throughout the world rejected summarily the attempt to discredit the name *Aucella*. Many of them have conscientiously tried to follow the rules when they realised the position, even when this resulted in some temporary inconvenience through the loss of a familiar generic name. In New Zealand, for instance, the name *Buchia* was introduced in 1933 in a stratigraphical



report (*N.Z. Geol. Surv. 27th An. Rep.* : 5) and has since been used consistently.

The name *Buchia* is in our opinion now so current (among stratigraphers and university teachers as well as among systematic paleontologists), that its suppression would cause just as much confusion as has been brought about by the normal operation of the Law of Priority. Many authors now cite both names (e.g., *Buchia* ("Aucella")); if *Buchia* were suppressed we believe such authors would still feel obliged to cite both names (e.g., *Aucella* ("Buchia")) for the benefit of readers unaccustomed to the name *Aucella*.

**14. Objection received from L. R. Cox (British Museum (Natural History), London) :** On 7th December 1955, Dr. L. R. Cox (*British Museum (Natural History), London*) addressed to the Office of the Commission the following objection to the proposals submitted in the present case :—

I wish to express my disagreement with the proposal submitted by J. A. Jeletzky for the suppression of the generic name *Buchia* Rouillier, 1845, in favour of its junior synonym *Aucella* Keyserling, 1846. This is one of many cases in which generic names which were formerly widely used have been discarded in favour of senior synonyms by authors convinced that the best path to uniformity in nomenclature is the observance of the Law of Priority. Experience has shown that the inconvenience of the re-introduction of less familiar names in such cases has been much exaggerated by those opposed to this course of action, and that within a generation, the re-introduced senior names have in most cases become the familiar ones, and the discarded names acquired an out-moded sound. The generic name *Pteria* Scopoli, for example, is now much more familiar than its junior synonym *Avicula* Lamarck, once in universal use, and *Glycymeris* Da Costa has similarly replaced *Pectunculus* Lamarck. Something might be said for the suppression of a newly discovered senior synonym immediately upon its disinternment, but to go back upon changes introduced 25—60 years ago by those basing their practice on observance of the International Rules would invite endless other applications for use of the Plenary Powers to revive junior synonyms once current, and instability would re-appear just when uniformity was on the point of being achieved by application of the International Rules.

The generic name *Buchia* was first revived over 25 years ago and has since been used in scientific papers and monographs by quite a number of responsible specialists, some of whom are mentioned by Dr. Jeletzky (*loc. cit.* p. 160), and in modern textbooks of such outstanding

importance as Shimer and Shrock's *Index Fossils of North America* (1943) and *Invertebrate Fossils* by R. C. Moore *et al.* (1952). To many workers of the newer generation it is already a more familiar name than *Aucella* and if allowed to take its course it cannot now fail to be in almost universal use within a relatively short space of time. In my view the suppression of *Buchia* in favour of *Aucella* would now be a retrograde step likely to bring discredit upon the International Rules. I would therefore recommend that the International Commission should render an *Opinion* in the following sense :—

- (1) to refuse to use its Plenary Powers to suppress the generic name *Buchia* Rouillier, 1845 ;
- (2) to place the under-mentioned name on the *Official List of Generic Names in Zoology* :—*Buchia* Rouillier, 1845 (gender : feminine) (type species, by monotypy : *Avicula mosquensis* von Buch, 1844) ;
- (3) to place the under-mentioned specific name on the *Official List of Specific Names in Zoology* :—*mosquensis* von Buch, 1844, as published in the combination *Avicula mosquensis* (specific name of type species of *Buchia* Rouillier, 1845) ;
- (4) to place the under-mentioned generic name on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—*Aucella* Keyserling, 1846 (a junior objective synonym of *Buchia* Rouillier, 1845).

**15. Objection received from W. J. Arkell (Sedgwick Museum, University of Cambridge) :** On 13th December 1955, Dr. W. J. Arkell (*Sedgwick Museum, University of Cambridge*) addressed the following letter to the Office of the Commission in which he expressed his objection to the action proposed in the present case :—

If an application had been made to preserve *Aucella* long ago, when *Buchia* was first disinterred, I would have been wholeheartedly for it. But my feeling now is that it is too late. For years authors have adapted themselves to the necessity of using *Buchia* and it has appeared repeatedly in print in much of the literature of recent years. I have myself used *Buchia* (with reluctance) in my *Jurassic Geology of the World* (1956). It is too late to change that now, and I think the Commission would be letting down those who try to keep to the Rules of Nomenclature if, 25 years after, they were to turn round and put the law-abiding in the wrong.

**16. Objection received from R. V. Melville (Geological Survey and Museum, London) :** On 14th December 1955, Mr. R. V. Melville (*Geological Survey and Museum, London*) addressed the following letter to the Office of the Commission in which he expressed his objection to the action proposed in the present case :—

Jeletzky's *Aucella* versus *Buchia* application : I am not familiar with this genus, which is not commonly represented in British fossil faunas, and I do not feel qualified to discuss the stratigraphical angle. My own view, which I am not yet in a position to support with documentation, is that *Buchia* should be allowed to stand, particularly as there is a family-group name, BUCHIIDAE, involved.

**17. Objection received from Kurt Teichert (Petroleum Geology Laboratory, Federal Center, Denver, Colorado, U.S.A.) :** On 15th May 1956, Dr. Jeletzky communicated to the Office of the Commission the following copy of a letter dated 16th January 1956 which he had received from Dr. Curt Teichert (*Petroleum Geology Laboratory, Federal Center, Denver, Colorado, U.S.A.*), setting out the grounds on which he considered that on balance it would be better to retain the name *Buchia* Rouillier than to validate the name *Aucella* Keyserling :—

Among the papers you sent me was your application to the International Commission on Zoological Nomenclature to preserve the name *Aucella* in preference to *Buchia*. I have read your presentation of the case with great interest. The best person to have made such an application would, of course, have been Cox, after he had rediscovered *Buchia* in 1929. You say that he was the first to accept the priority of the name *Buchia*, "but he did not give any reasons". To me it would seem that discovery of the priority of a name was sufficient reason to use it, but I agree that under the circumstances a good case for retention of *Aucella* could have been made. Now, 27 years after publication of Cox's paper the literature is divided and the name *Buchia* has been rather widely used. Another 20 years, and there is a good chance that *Aucella* will have been forgotten, especially if it is relegated to synonymy in the *Treatise on Invertebrate Palaeontology*. I am saying this not because I have used *Buchia* myself, which is of little concern, but because the object of the International Rules is to create stability. My personal belief is that not much good will be done by switching back from *Buchia* to *Aucella* at the present moment. However, if the Commission rules otherwise I shall meekly submit.

There can be little doubt, in my opinion, about the validity of the name *Buchia*. Since Rouillier, in 1845, was himself the Secretary of the *Société imperiale des naturalists de Moscou*, he no doubt composed the note on *Buchia* himself, notwithstanding its impersonal style. The villain in the piece is Keyserling who in 1846 must have known about Rouillier's name. There were not that many palaeontologists in Russia in those days.

**18. Comment received from D. T. Donovan (University of Bristol, Department of Geology, Bristol) :** On 2nd January 1956, Dr. D. T. Donovan (*University of Bristol, Department of Geology, Bristol*) communicated to the Office of the Commission the following statement in which he reviewed the issues involved in the case of *Aucella* versus *Buchia*, at the same time intimating that that paper was not intended to constitute a definite opinion on the question of the action which it was desirable that the International Commission should take in the present case :—

**Proposed use of the Plenary Powers to preserve  
the generic name "Aucella"**

As an author who has employed the name *Buchia* I may fairly be regarded as prejudiced in my opinion on the subject. I should, however, like to make the following observations on the case presented by Dr. Jeletzky, without expressing a clear-cut opinion as to the course of action which the Commission should take.

1. I agree with Dr. Jeletzky's remarks (his para. 2) as to the wide geographical and stratigraphical distribution of the genus. As he says, the genus is of stratigraphical value, although when reading his observation that its importance "appears to be second only to that of the ammonites" one must bear in mind that it is a very poor second. Dr. Jeletzky is correct, however, in saying that in some cases no other fossils are available for correlation.

2. If the name *Buchia* had not been revived by Cox (1929), there is little doubt that the proper course would be to validate *Aucella* and so legalise the general usage. But (as pointed out by Dr. Jeletzky) a number of writers have followed Cox since 1929, in a sincere effort to abide by the Rules, and so it is necessary to examine the present position.

3. When the name *Buchia* was used by Cox in 1929, he pointed out that it was the senior synonym and therefore the valid name of *Aucella* Keyserling. Dr. Jeletzky says "but he [Dr. Cox] did not give any reasons". There was no occasion for Cox to give reasons apart from the clear fact of priority.

4. Since 1929 the name *Buchia* has advanced a good way towards acceptance by stratigraphers and palaeontologists who are specialists in the period covered by *Buchia*-bearing sediments. (To workers who adopt the name, cited by Jeletzky, may be added Waterston, 1951; Arkell, 1947 (: 103); Arkell, 1956.) All specialists are now aware of the synonymy and would not be inconvenienced by the application of the Rule of Priority, especially as neither generic name has been used in any other sense or in any other group of animals, nearly or remotely related. From the point of view of the specialist there is therefore no need to validate *Aucella*, provided that the original publication of *Buchia* be regarded as valid.

5. The issue may be regarded as one between specialists and geologists who are not specialists so far as the genus in question is concerned. It is only on the claims of the latter, in the present writer's opinion, that a case for *Aucella* can be made. Dr. Jeletzky is correct in stating that the name *Aucella* was universally used until 1929, and appears in a large number of publications. If *Buchia* be upheld, then a large number of old publications are rendered incorrect. On the other hand, there has been an effort by authors of general works as well as by specialists (Jeletzky, para. 6), to employ *Buchia*, although others preferred to retain the more familiar *Aucella*, giving *Buchia* as a synonym. It is clear that by about the beginning of the 1939 war most, if not all, of the persons concerned were aware that *Buchia* was the correct name, and the deliberate retention of *Aucella* by some was inexcusable; the correct course was either to use *Buchia* or to petition the International Commission on Zoological Nomenclature. These later users of *Aucella* usually used some form such as "*Aucella* (= *Buchia*)" and the general convenience would have been equally well served by using "*Buchia* (= *Aucella*)"; their deliberate flouting of the Rules can hardly be used to support an application for suspension.

6. The present writer therefore believes that the case must be decided (assuming that the dates of *Buchia*: 1845 and *Aucella*: 1846 are accepted by the Commission as the correct ones) according to whether the question of validating the usage in publications from 1846 to 1929, to eliminate confusion from the point of view of non-specialist users of the name, is considered of sufficient importance to warrant a suspension of the Rules.

### References

- Arkell, W. J., 1947. "Geology of the country around Weymouth, Swanage, Corfe and Lulworth." *Mem. geol. Surv. G.B.*
- Arkell, W. J., 1956. *Jurassic Geology of the World*
- Waterston, C. D., 1951. "The Stratigraphy and Palaeontology of the Jurassic Rock of Eathie (Cromarty)." *Trans. Roy. Soc. Edin.* **62**, part 1 (No. 2)

19. Attitude of L. R. Cox (British Museum (Natural History), London) and R. V. Melville (Geological Survey and Museum, London) on the question of the validation of the family-group name "Buchiidae" Cox, 1953, in the event of the International Commission on Zoological Nomenclature deciding not to validate the generic name "Aucella" Keyserling, 1846 : On 18th March 1956 Mr. Hemming, while reviewing the issues involved in the present case, decided that it was desirable to obtain a further expression of opinion from specialists on the family-group-name problem involved. No difficulty was to be apprehended under this head in the event of the International Commission deciding to validate the generic name *Aucella* Keyserling, 1846, for the oldest family-group name for the family-group taxon involved was the name AUCELLIDAE Lanusen, 1897. If, however, the Commission were to reject the proposal that it should validate the generic name *Aucella* Keyserling and if in consequence the generic name *Buchia* Rouillier, 1845, were to be placed on the *Official List of Generic Names in Zoology*, the name for the family-group taxon would remain AUCELLIDAE, that name, as from Lanusen (1897) having many years' priority over the name BUCHIIDAE (which dated only from 1953). In that event therefore a situation would arise in which under a decision taken at Copenhagen in 1953 by the Fourteenth International Congress of Zoology the valid name for the family-group taxon would be a name based upon a junior objective synonym of the name of the type genus (1953, *Copenhagen Decisions zool. Nomencl.* : 36, Decision 54(1)(a)). In previous parallel cases the view had been advanced by the applicants and accepted by the Commission that it was desirable that a difference of the foregoing kind between a family-group name and the name of the type genus was undesirable and should be avoided by the use of the Plenary Powers. This question was accordingly put by the Secretary to Dr. L. R. Cox (*British Museum (Natural History), London*) and to Mr. R. V. Melville (*Geological Survey and Museum, London*). Both these specialists on being so consulted expressed the view that, if the Commission were to decide in favour of the retention of the generic name *Buchia* Rouillier, it was desirable that it should use its Plenary Powers to suppress the family-group name AUCELLIDAE Lanusen, 1897, thereby validating the family-group name BUCHIIDAE Cox. Shortly afterwards (on 19th March 1956) Mr. Melville addressed the following letter to the Office of the Commission in supplement

to the oral communication which he had already made to the Secretary :—

As I have already indicated to you, I think that the generic name *Buchia*, having been resuscitated by Cox nearly 20 years ago, should be maintained in preference to *Aucella*. If this is the view taken by the Commission, then I hold that the family-name involved in this case should be BUCHIIDAE and not AUCELLIDAE : I hold that the decision taken at Copenhagen (*Copenhagen Decisions*, para. 54(a), p. 36) was misguided, not only as it affects this particular case, but in general. In my view, the name of a family should always be formed from the stem of the name of the type-genus, and if the latter is changed, the former should be changed to conform.

**20. Procedural arrangements made by the Secretary in March 1956 for seeking a decision from the International Commission on the issues involved in the present case :** In March 1956 consideration was given by the Secretary to the procedural arrangements required for enabling the International Commission to reach decisions on the issues involved in the present case. The conclusion reached by Mr. Hemming was that it was desirable that the Voting Paper to be submitted in the present case should be divided into two parts on each of which the Members of the Commission would be invited to vote separately. Under this arrangement Part 1 of the Voting Paper would be concerned with the question whether or not the generic name *Aucella* Keyserling, 1846, should be validated by the suppression under the Plenary Powers of the older objective synonym *Buchia* Rouillier, 1845. Part 2 of the Voting Paper would be reserved for the question whether, if the Commission were to vote negatively on Part 1 (i.e. if it were to reject the proposal that the name *Aucella* Keyserling should be validated and if in consequence the name *Buchia* Rouillier were to be officially adopted), the family-group name AUCELLIDAE Lanusen, 1897, should be retained for the family-group taxon typified by the genus *Buchia* Rouillier or whether the Plenary Powers should be used to suppress the foregoing family-group name, thereby securing that the family-group name for the taxon of which *Buchia* Rouillier was the type genus should be BUCHIIDAE and not AUCELLIDAE. Further, Mr. Hemming took the view that it would be of assistance to the Commission in reaching decisions on the foregoing matters if it had before it drafts

of the affirmative decisions which would result under Part 1 and under Part 2 of the Voting Paper according to the nature of the vote given by the Commission. In pursuance of the arrangements described above Mr. Hemming on 18th March 1956 prepared the following paper for submission to the Commission simultaneously with the Voting Paper to be placed before the Commission in this case :—

### The "Aucella" Problem

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

(Secretary to the International Commission on Zoological Nomenclature)

The present application was submitted by J. A. Jeletzky (*Geological Survey of Canada, Ottawa, Canada*). It was published in May 1955 in Part 5 (pp. 158—166) of Volume 11 of the *Bulletin of Zoological Nomenclature*. Ten months have elapsed since the publication of this case and the issue of the Public Notices regarding it. It is therefore fully time for the Commission to take a vote on this case.

2. In essence this case is simple. Jeletzky considers that in the interest of stability and continuity it is desirable that the Commission should use its Plenary Powers to suppress the generic name *Buchia* Rouillier, 1845, in order to preserve the name *Aucella* Keyserling, 1846. The applicant regards the foregoing proposal as "one of urgency if serious confusion is to be avoided, for, while some palaeontologists have attempted to replace this name [*Aucella*] by the name *Buchia* Rouillier, the majority of palaeontologists and biostratigraphers throughout the world still adhere to the name *Aucella*" (: 158). Those who have lodged objection to this proposal have for the most part indicated that they would have supported the validation of the name *Aucella* if a proposal to that end had been submitted shortly after the re-introduction of the name *Buchia* by Cox in 1929, but are of the opinion that it would now be too late to take action in favour of the name *Aucella*.

3. In all, thirteen specialists have expressed their views on the present case. These are the following :—

(1) *In support of the present application, seven (7) :*

- (a) Ralph W. Imlay (*United States Geological Survey, Washington, D.C., U.S.A.*)
- (b) John B. Reeside, Jr. (*United States Geological Survey, Washington, D.C., U.S.A.*)



- (c) Wolf Maync (*Chief Paleontologist, Venezuelan Atlantic Refining Co., Caracas, Venezuela*)
  - (d) Hubert G. Schenck (*Palo Alto, California, U.S.A.*)
  - (e) F. H. McLearn (*Senior Geologist (retired), Geological Survey of Canada*)
  - (f) S. Wm. Muller (*Stanford University, School of Mineral Sciences, Stanford, California, U.S.A.*)
  - (g) J. A. Jeletzky (*Geological Survey of Canada*) (the applicant in the present case)
- (2) *Against the present application, five (5) :*
- (a) C. A. Fleming (*N.Z. Geological Survey, Wellington, New Zealand*)
  - (b) L. R. Cox (*British Museum (Natural History), London*)
  - (d) R. V. Melville (*Geological Survey and Museum, London*)
  - (d) W. J. Arkell (*Cambridge University, Cambridge*)
  - (e) Curt Teichert (*Petroleum Geology Laboratory, Federal Center Denver, Colorado, U.S.A.*)
- (3) *No definite view expressed, one (1) :*
- D. T. Donovan (*University of Bristol, Department of Geology, Bristol*).

4. Detailed particulars of the usage of the names *Aucella* and *Buchia* respectively are given on pages 159 to 161 of Jeletzky's paper, to which also an extensive bibliography is attached (: 163—166). The Commission will, no doubt, wish to consider the information so furnished jointly with the comments received from specialists, when taking its decision in the present case.

5. As there is a difference of opinion among the specialists who have expressed their views on this case (for the application, seven (7), including the applicant ; against, six (6)), I have thought that it would be for the convenience of the Commission if, instead of being asked to vote for, or against, the proposal submitted, it were to be asked to vote affirmatively either for the validation of the name *Aucella* (the

proposal submitted by Jeletzky) or for the acceptance of *Buchia* (and the consequent rejection of *Aucella*). These alternatives are set out in Part 1 of the Annexe to the present paper: Alternative "A" (validation of *Aucella*); Alternative "B" (rejection of proposal for the validation of *Aucella*).

6. There is one point connected with this application, to which reference should be made. This is concerned with the family-group-name problem involved. By some specialists the genus in question is placed in the family AVICULIDAE, but by others it is regarded as the type genus of a separate family-group taxon. By those who have continued to use the generic name *Aucella* the name employed is AUCELLIDAE Lanusen, 1897, *Paleozoomorpha* (original title in Cyrillic characters) (: 351). For those who have accepted the name *Buchia* the name used is BUCHIIDAE Cox, 1953 (*Falkland Is. Dependencies Survey, Sci. Rep. No. 4* : 6). If the Commission were to vote in favour of the generic name *Aucella*, the correct family name would be AUCELLIDAE Lanusen in virtue of priority, while at the same time the name BUCHIIDAE Cox would automatically be suppressed under the provisions of *Declaration 20* (1955, *Ops. Decls. int. Comm. zool. Nomencl.* **10** : i—viii). If on the other hand the Commission were to vote in favour of *Buchia* (i.e. against *Aucella*), the name of the family, under Decision 54(1) of the Copenhagen Congress (1953, *Copenhagen Decisions zool. Nomencl.* : 36) would still be AUCELLIDAE, notwithstanding the disappearance of the name *Aucella*, unless some specialist were to invoke the procedure laid down by Decision 45 of the same Congress (: 33). In that case protection would be given to the later name BUCHIIDAE if no objection was lodged against that name in the two-year period following the date on which action was taken under Decision 45. Cox, strongly supported by Arkell and Melville, takes the view that, if their objection to *Aucella* meets with the approval of the Commission, that is, if the name *Aucella* is sunk as a synonym of *Buchia*, the family name BUCHIIDAE ought to be upheld. Since Copenhagen Decision 45 referred to above is incapable of producing a definite decision for at least two years, it could not be used to secure the definitive acceptance of the name BUCHIIDAE concurrently with that of the name *Buchia* in the Ruling to be given in the present case. Accordingly the only means by which such a decision could be obtained would be by the use by the Commission of its Plenary Powers to suppress the name AUCELLIDAE Lanusen at the same time that it rejects the name *Aucella*, the effect of such a decision being to validate the name BUCHIIDAE Cox at the same time that the name *Buchia* was accepted in place of the name *Aucella*. This is the course recommended by the palaeontologists named above. In Part 2 of the Annexe to the present paper an opportunity is accordingly provided for those Commissioners who may vote in favour of the generic name *Buchia* as against the name *Aucella* to vote separately on the question whether, following the acceptance of the name *Buchia* the family name BUCHIIDAE

Cox should be validated by the suppression of the name AUCELLIDAE Lanusen.

## ANNEXE

### PART 1 : Alternative Draft Rulings on the "Aucella" case

#### ALTERNATIVE "A"

(Validation of "Aucella" Keyserling, 1846)

(1) Under the Plenary Powers the under-mentioned generic name is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :—*Buchia* Rouillier, 1845 (Class Lamellibranchiata).

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* :—*Aucella* Keyserling, 1846 (gender : feminine) (type species by selection by Herrmannsen (1852) : *Avicula mosquensis* von Buch, 1844), as defined by the lectotype selected by Pavlov (1907).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* : *mosquensis* von Buch, 1844, as published in the combination *Avicula mosquensis*, interpreted as specified in (2) above (specific name of type species of *Aucella* Keyserling, 1846).

(4) The under-mentioned generic name is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—*Buchia* Rouillier, 1845, 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* :—AUCELLIDAE Lanusen, 1897 (type genus : *Aucella* Keyserling, 1846).

(6) The under-mentioned family-group name is hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—BUCHIIDAE Cox, 1953 (a junior objective synonym of AUCELLIDAE Lanusen, 1897, the respective type genera of these family-group taxa having the same species as type species).

#### ALTERNATIVE "B"

(Rejection of the proposal to validate "Aucella" Keyserling, 1846)

(1) The request for the suppression under the Plenary Powers of the generic name *Buchia* Rouillier, 1845 (Class Lamellibranchiata) for the

purpose of validating the name *Aucella* Keyserling, 1846, is hereby rejected.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology*: *Buchia* Rouillier, 1845 (gender: feminine) (type species, by monotypy: *Avicula mosquensis* von Buch, 1844, as defined by the lectotype selected by Pavlov (1907)).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology*:—*mosquensis* von Buch, 1844, as published in the combination *Avicula mosquensis*, interpreted as specified in (2) above (specific name of type species of *Buchia* Rouillier, 1845).

(4) The under-mentioned generic name is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*:—*Aucella* Keyserling, 1846 (a junior objective synonym of *Buchia* Rouillier, 1845).

(5) [For alternative proposals regarding the family-group name to be accepted in the event of the refusal to validate the generic name *Aucella* Keyserling, 1846, see Part 2 of the present Annexe.]

**PART 2: Alternative Proposals for dealing with the family-group-name problem involved in the event of the Commission refusing to validate the generic name “*Aucella*” Keyserling, 1846**

ALTERNATIVE “X”

(*Proposal to secure that the family name for the genus “Buchia” shall be BUCHIIDAE and not AUCELLIDAE, a name based upon the name of a junior objective synonym of “Buchia” Rouillier*)

(*Note: The under-mentioned Rulings would follow Rulings (1) to (4) set out in Alternative “B” in Part 1 of the present Annexe and would therefore bear the numbers (5), (6) and (7) respectively.*)

(5) Under the Plenary Powers the family-group name AUCELLIDAE Lanusen, 1897 (type genus: *Aucella* Keyserling, 1846) is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(6) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology*:—BUCHIIDAE Cox, 1953 (type genus: *Buchia* Rouillier, 1845).

(7) The under-mentioned family-group name is hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—AUCELLIDAE Lanusen, 1897, as suppressed under the Plenary Powers under (5) above.

#### ALTERNATIVE " Y "

(*Proposal under which the family name for the genus " Buchia " would be AUCELLIDAE, a name based upon the name of a junior objective synonym of " Buchia "*)

(*Note* : The under-mentioned Rulings would follow Rulings (1) to (4) set out in Alternative " B " in Part I of the present Annexe and would therefore bear the numbers (5) and (6) respectively.)

(5) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* :—AUCELLIDAE Lanusen, 1897 (type genus : *Aucella* Keyserling, 1846).

(6) The under-mentioned family-group name is hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—BUCHIIDAE Cox, 1953 (a junior objective synonym of AUCELLIDAE Lanusen, 1897, the respective type genera of these family-group taxa having the same species as type species).

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

**21. Issue of Voting Paper V.P.(56)16** : On 29th March 1956 a Voting Paper (V.P.(56)16) in regard to the present case was issued to the Members of the Commission, together with the explanatory paper, the text of which has been reproduced in paragraph 20 of the present *Opinion*. In accordance with the arrangements explained in the foregoing paper, the above Voting

Paper was divided into two Parts, on which the Members of the Commission were invited to vote on the following issues :—

**Part 1 :** In this Part the Members of the Commission were invited to vote for one or other of “ the following alternatives set out in Part 1 of the Annexe to the paper numbered Z.N.(S.) 827 submitted by the Secretary simultaneously with the present Voting Paper :—

Alternative “A” (validation of generic name *Aucella* under the Plenary Powers)

OR

Alternative “ B ” (refusal to validate the generic name *Aucella*).

**Part 2 :** In this Part, which was concerned with the “ treatment to be accorded to the family-group name BUCHIIDAE if by its vote under Part 1 above the Commission were to accept *Buchia* in preference to *Aucella* ”, the Members of the Commission were invited to vote for one or other of “ the following alternatives set out in Part 2 of the Annexe to the paper numbered Z.N.(S.) 827 submitted by the Secretary simultaneously with the present Voting Paper :—

Alternative “ X ” (acceptance of BUCHIIDAE as the family-group name for *Buchia*)

OR

Alternative “ Y ” (acceptance for *Buchia* of the family-group name AUCELLIDAE, a name based upon *Aucella*, a junior objective synonym of *Buchia*) ”.

**22. The Prescribed Voting Period for Voting Paper V.P.(56)16 :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 29th June 1956.

**23. Particulars of the Voting on Part 1 of Voting Paper V.P.(56) 16 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)16 was as follows :—

(a) *In favour of Alternative “A” (validating “Aucella” Keyserling, 1846), fifteen (15) :*

Holthuis ; Mayr ; Hering ; Boschma ; Riley ; Lemche ; Bodenheimer ; Tortonese ; Key ; Hankó ; Jaczewski ; Hemming ; Bonnet ; Miller ; Kühnelt ;

(b) *In favour of Alternative “B” (refusal to validate “Aucella” Keyserling, 1846), nine (9) :*

Sylvester-Bradley ; Prantl ; Dymond ; do Amaral ; Esaki ; Vokes ; Stoll ; Cabrera ; Mertens ;

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

Bradley (J.C.) ;

(d) *Voting Papers not returned :*

None.

**24. Deadlock resulting from the vote taken on Part 1 of Voting Paper V.P.(56)16 :** When at the close of the Prescribed Voting Period on 29th June 1956 the votes cast on Part 1 of Voting Paper V.P.(56)16 were found to be as set out in paragraph 23 above, a situation of complete deadlock was disclosed, for on the one hand the proposal that the Plenary Powers should be used to validate the generic name *Aucella* Keyserling through the suppression of the name *Buchia*, though having secured a majority of the total votes cast, had failed to secure two out of every three of those votes—the affirmative votes being fifteen in number and the negative votes nine in number—while on the other hand the opposing proposal for the acceptance of the name *Buchia*

Rouillier and the rejection of the name *Aucella* Keyserling had been negated by a like majority. The voting on Part 2 of the foregoing Voting Paper was also ineffective, since the subject matter of that Part of the Voting Paper was such that it became meaningful only if a definite decision were taken on Part 1 in favour of the course of action there styled "Alternative 'B'". It was evident therefore that a decision on the procedural issue involved would need to be obtained before any further progress could be achieved in securing a decision in the present case.

**25. Receipt in October 1956 of a notification from W. O. Dietrich (Humboldt-Universität zu Berlin) of support for the proposals submitted by J. A. Jeletzky :** On 23rd October 1956, Professor Dr. W. O. Dietrich (*Humboldt-Universität zu Berlin*) communicated to the Office of the Commission a copy of the following paper in support of Dr. Jeletzky's proposal for the validation of the generic name *Aucella* Keyserling which had just been published (Dietrich, October 1956, *Neues Jb. Miner., Mh., Abt. B* 10 : 449—450) :—

### Aucella oder Buchia?

Von W. O. DIETRICH (*Berlin*)

Die Frage ist zwar durch die Zeit längst von selbst zugunsten von *Aucella* entschieden, jetzt aber durch Jeletzky's Antrag an die I.C.Z.N. aktuell geworden ; sie zeigt, wie schwerfällig der Wissenschaftsbetrieb in der Paläontologie noch immer ist. Da der Fall so liegt dass formale Entscheidung nach dem Grundsatz Fiat justitia sehr wohl zur Einsetzung von *Buchia* als gültiger Name führen könnte, ist es nötig, die guten Gründe, die Jeletzky für die Gültigkeitserklärung von *Aucella* Keyserling 1846 gegen *Buchia* Rouillier 1845 anführt, zu unterstützen, bzw. zu vermehren.

Zeitgenossen beider genannten Autoren wie H. G. Bronn, H. B. Geinitz, F. J. Pictet, F. A. Quenstedt haben in ihren Lehr- und Handbüchern von *Buchia* überhaupt keine Notiz genommen. Weder in Bronns Index palaeontologicus 1848, noch in A. d'Orbigny's Prodrôme de Paléontologie stratigraphique universelle (1, 1849) wird *Buchia* aufgeführt. E. Beyrich gibt in seinen hinterlassenen schriftlichen



Notizen zur Paläontologie und Stratigraphie\* folgendes an : “*Aucella* Keys. Etym. *Aucella* sive *Avicella* i.q. [idem quod] *Avicula*. Autor gen. Keyserling 1846 in : Wiss. Beobacht. a.e. Reise in das Petschoraland. Geschichte : Nach Berlin kamen sie zuerst durch die alte russische Sammlung . . . Quenstedt legte sie 1835 unter die *Inoceramen* und verglich sie mit *Inoceramus striatus* des Gault. Schlotheim erhielt nach Bekanntmachung seiner Petrefakten ein grosses Moscauer Gesteinststück voller Aucellen und nannte die Art in seiner Sammlung *Mytulites Gmelini* (Syst. Verz. 1832, p. 56). Fischer 1837 (Oryct. de Moscou) unterscheidet 2 Arten, die er als *Inoceramus rugosus* Bronn (= *I. dubius* Sow.) und *I. concentricus* Sow. bestimmt. Eine dritte Art bestimmt Fischer in der Revue des fossiles de Moscou als *I. undulatus* (Bull. de Moscou 1843 I S, 131). Die ersten Aucellen des russischen Jura, welche L. v. Buch erhielt, waren die zwei Muscheln, welche in Karstens Archiv 1840, S. 95 aufgeführt sind als : *Inoceramus Cripsii* Goldf. t.112 f.4 und *Inoceramus gryphaeoides* Sow. t. 584 [= *Aucellina*]. Obwohl er diese Muscheln mit entschiedenem Jurapetrefakten von gleicher Lokalität, Sysran an der Wolga, erhalten hatte und nichts von anderen Kreidepetrefakten aus dieser Gegend kannte, schien ihm doch die Ähnlichkeit mit Kreide-Inoceramen so gross, dass er meinte, sie müssten aus den benachbarten Kreidelagern harrühren, deren Patrefakte von Iasikow aufgeführt werden. Er verfiel hierbei in denselben Irrtum wie Fischer, der in der Oryctographie du gouvernement de Moscou 1837 eine jurassische *Aucella* aus derselben Gegend unter den Kreidepetrefakten als *Inoceramus concentricus* beschrieb.” Beyrich beschreibt diesen *Cripsii* L. v. Buchs ausführlich und kommt zu dem Ergebnis : “Ich halte nicht dafür, dass *Inoceramus Cripsii* L. v. Buchs a.a.O. in die Synonymik der Keyserlingschen *Aucella concentrica* gehöre, halte es aber für möglich . . . Die *Aucella* von Sysran kann als var. *lata* der *A. Fischeriana* angefügt werden : *A. Fischeriana* d’Orb. sp. var. *lata* Beyr.” Auszüge aus Keyserlings Werk zur Systematik und Verbreitung der *Aucella*-Arten beweisen Beyrichs eingehende Beschäftigung mit dem Gegenstand. Er notiert : “*A. mosquensis* Buch sp. Keys. l.c. p. 298, 299. Einzige Moskauer Art, die K. kennt und für ident erklärt mit *Avicula Fischeriana* d’Orb. *A. mosquensis* var. Keys. Zu dieser Varietät, meint Keyserling, werde gehören : *Inoceramus Cripsii* bei L. v. Buch. Breiter.” Keiner Erwähnung wird Rouillier’s getan. Daraus geht hervor, dass die alten Geognosten keine Prioritätsrechte anerkannten, wenn sie sich einmal für einen passenden Namen entschieden hatten. Sie waren nicht so empfindsam und nicht so ballast-freudig wie die Paläontologen des 20. Jahrhunderts.

Schliesslich findet sich im Nomenclator animalum generum et subgenerum 1, Berlin 1926, S.465 das Zitat : *Buchia* C. Rouillier, Bull. Soc. Moscou 21, p. 272, 1848. Moll. Lam. Der Verfasser dieses

\* Aufbewahrt im Archiv des Geologisch-paläontologischen Instituts und Museums der Humboldt-Universität zu Berlin.

Zitats, Johannes Thiele, Kustos der Mollusken-Abteilung am Zoologischen Museum Berlin, hat somit dem Namen *Aucella* die Priorität zuerkannt. Nach den Anweisungen des Nomenklators an die Mitarbeiter hätte er die Stelle der ersten Erwähnung des Namens *Buchia* angeben müssen.

#### Literatur

Jeletzky, J. A. *Bull. zool. Nomencl.* **11**, Part 5, 158—166, May 1955  
London

**26. Breaking of the deadlock in the present case by the adoption by the Commission of "Declaration" 34:** The procedural problem which in June 1956 prevented any further progress from being made in the present case was placed before the Commission by the Secretary on 28th March 1957 in a paper in which two alternative proposals were submitted for breaking the deadlock arising where in a case involving the possible use of the Plenary Powers a majority, but not a two-thirds majority, of the Members of the Commission vote in favour of the use of the foregoing Powers and in consequence the affirmative vote by the Commission is ineffective, while at the same time the proposal in favour of the opposing course of action is rejected by a majority. By a vote taken on Voting Paper V.P.(O.M.)(57)3 the proposal set out in the first of the alternatives referred to above was approved and adopted by the International Commission. The decision so taken was embodied on 21st May 1957 in *Declaration* 34. Under the terms of that *Declaration* it was provided that in a situation such as that described above (i) the vote taken was to be treated as a preliminary vote only, (ii) the result of that vote was at once to be reported to the Commission, (iii), simultaneously with (ii) above, the original proposal was to be resubmitted for decision on the basis that, if that proposal failed to secure two out of every three votes cast, the opposing proposal (the terms of which was at the same time to be submitted for information) was forthwith to be treated as having been approved by the Commission. The above *Declaration* was published on 3rd September 1957 (*Ops. Decls. int. Comm. zool. Nomencl.* **17** : i—xii).

**27. Preparation in May 1957 of revised proposals based upon the procedure prescribed in "Declaration" 34:** Immediately following the adoption of *Declaration* 34 the Secretary on

28th May 1957 prepared for the consideration of the International Commission the following paper on the basis of the provisions prescribed by the foregoing *Declaration* :—

**Proposal for the taking of a vote under the procedure prescribed by  
“ Declaration ” 34 in relation to the application submitted by  
Dr. J. A. Jeletzky regarding the generic names “ Buchia ”  
Rouillier, 1845 and “ Aucella ” Keyserling, 1846 (Class  
Lamellibranchiata)**

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 secure a decision from the International Commission on Zoological Nomenclature in regard to Dr. J. A. Jeletzky's proposals regarding the generic names *Buchia* Rouillier, 1845, and *Aucella* Keyserling, 1846 (Class Lamellibranchiata), the proposal in question being now submitted under the special procedure recently approved by the Commission by its vote on Voting Paper V.P.(O.M.)(57)3 and since embodied in *Declaration* 34 (now in the press)<sup>1</sup>.

2. The *Declaration* referred to above deals with the question of the procedure to be adopted when, on a vote being taken by the Commission on an application involving the possible use of its Plenary Powers, a majority, but not a two-thirds majority, of the Members of the Commission vote in favour of the use of the Plenary Powers and when in consequence the proposal so submitted fails on that vote to secure the approval of the Commission as a body. Since the foregoing *Declaration* has not yet been published, it may be convenient to recall that under its terms—which are those set out as Course (1) in the Paper submitted with the Voting Paper referred to above—a vote resulting in the indecisive manner here in question is to be treated as being a preliminary vote only and that thereafter the procedure to be adopted shall be as follows :—(1) An immediate report on the result of the vote is to be submitted by the Secretary who is at the same time to resubmit to the Commission the application for the use of the Plenary Powers in the case concerned, annexing thereto a statement setting out the affirmative action on the names in question which would require to be taken in the event of a definitive rejection of the application for the use of the Plenary Powers; (2) In any case re-submitted to the Commission in the foregoing manner the procedure to be followed at the close of the prescribed Voting Period in respect of the Voting Paper so submitted is to be as follows :—(a) If two out of every three Members of the Commission voting have voted in favour of the use of the Plenary Powers the proposal in question is to be treated as having been approved and adopted by the Commission,

<sup>1</sup> As noted in paragraph 26 of the present *Opinion*, the *Declaration* here referred to was published on 3rd September 1957.

but (b) if less than two out of every three Members of the Commission voting have voted in favour of the use of the Plenary Powers, that proposal is to be treated as having been rejected and in its place the proposal involving affirmative action in the opposite sense submitted under (1) above is to be treated as having been approved and adopted.

3. The application by Dr. Jeletzky with which the present paper is concerned was published in May 1955 in the *Bulletin of Zoological Nomenclature* (11 : 158—166). The principal purpose of that application was to secure the validation of the generic name *Aucella* Keyserling, 1846, by suppressing its senior objective synonym *Buchia* Rouillier, 1845. Dr. Jeletzky based his application on the need for maintaining continuity in nomenclature and for the avoidance of changing well-known names. The ground on which Dr. Jeletzky held that these considerations applied in the present case are set out in the application which he submitted to the Commission, to which reference should be made in connection with the Voting Paper now submitted. The specialists who since the publication of Dr. Jeletzky's application have expressed their opposition to his proposals have for the most based themselves on the view that in the period of about thirty years which has elapsed since the discovery of the name *Buchia* Rouillier, 1845, the consequent substitution of that name for the junior name *Aucella* Keyserling, 1846, till then used for this genus, has made such headway in the literature that it would not be desirable at this stage to validate the name *Aucella* Keyserling.

4. In the discussion of this case fourteen (14) specialists have communicated their views to the Office of the Commission. One of these comments (that by Professor Dr. W. O. Dietrich of Berlin) has been received since this case was last submitted to the Commission. Of the specialists referred to above, eight (8) have expressed themselves as being in favour of Dr. Jeletzky's proposal, five (5) are opposed to it, and one (1) did not express a definite opinion as to the action which it was desirable should be taken. The names of the specialists concerned are set out in Annexe 1 to the present paper.<sup>2</sup>

5. The proposal by Dr. Jeletzky discussed above was submitted to the Commission for vote on 29th March 1956 with Voting Paper V.P.(56)16. When at the close of the Prescribed Voting Period the votes cast by members of the Commission came to be counted, it was found that fifteen Members of the Commission had voted in favour of the use of the Plenary Powers in the manner recommended by Dr. Jeletzky and that nine (9) had voted in favour of the opposite course. There was thus a majority, but not a two-thirds majority, in favour of the use of the Plenary Powers in the sense recommended in the application.

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<sup>2</sup> This Annexe is not here reproduced, the information contained in it having already been given in paragraph 3 of the paper reproduced in paragraph 20 of the present *Opinion*.

6. The vote described above produced a situation of absolute deadlock, for (1) the proposal submitted by Dr. Jeletzky in favour of the use of the Plenary Powers, though supported by a majority of the Commission, had failed to secure two out of every three votes cast and in consequence had failed to secure definitive adoption by the Commission, but (2) the affirmative proposal, the adoption of which would need to follow upon the rejection of Dr. Jeletzky's application, had secured only a minority of the votes cast by the members of the Commission.

7. It was in order to break a deadlock of this kind whenever it might arise that on 28th March 1957, I submitted to the Commission a paper (bearing the Registered Number Z.N.(S.) 1208) with which were placed before the Commission alternative courses, the adoption of either of which would serve to secure an affirmative decision in one sense or another in cases of this kind. As has already been explained (paragraph 1 above), the first of these courses was approved and adopted by the Commission and has since been embodied in *Declaration 34*.

8. It is in conformity with the provisions of the above *Declaration* that the particulars given above in paragraph 5 in regard to the votes cast on Voting Paper V.P.(56)16 are now submitted to the Commission. It is in further conformity with those provisions that Dr. Jeletzky's proposal (exclusive of the portion relating to family-group names later added by him thereto which is dealt with separately in paragraph 9 below) is resubmitted as Annexe 2 to the present paper. The Commission is invited to vote on that proposal in Part I of the annexed Voting Paper V.P.(O.M.)(57)8. Finally, in accordance with the same provisions I set out in Annexe 3 to the present paper the terms of the affirmative decision which would result either if the Commission were now to reject Dr. Jeletzky's proposal or if there were to be a majority, but not a two-thirds majority, in favour of that proposal.

9. The remaining problem involved in the present case is concerned with the family-group name to be used for the family containing the genus here in question. There are two family names concerned, namely, AUCELLIDAE Lanusen, 1897, and BUCHIIDAE Cox, 1953. Under Dr. Jeletzky's proposal if approved by the Commission, the generic name *Aucella* Keyserling, 1846, would be validated under the Plenary Powers by the suppression of the older name *Buchia* Rouillier, 1845. In that event the appropriate family name for the genus concerned would be AUCELLIDAE and that name would moreover be the valid name (a) because it has priority over *Buchia* Cox, and (b) because under the terms of *Declaration 20* the suppression under the Plenary Powers of the generic name *Buchia* Rouillier would carry with it automatically the suppression of the family-group name BUCHIIDAE. Thus, if the

decision of the Commission were to be in favour of the validation of the name *Aucella* Keyserling (as proposed by Dr. Jeletzky), no difficulty would arise at the family-group name level. Such a difficulty would however arise if the Commission were to reject, or fail by a sufficient number of votes to approve, the foregoing proposal. For in that event, the name *Buchia* Rouillier would be accepted as the valid name for this genus but, in the absence of special action by the Commission, the correct name for the family concerned would remain AUCELLIDAE (since that name has priority over the name BUCHIIDAE), even though under that decision the generic name *Aucella* Keyserling would have been rejected and placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*. It was to prevent so anomalous a result in the foregoing circumstances that the proposal submitted included a recommendation that in the event of the Commission deciding in favour of the name *Buchia* and against the name *Aucella*, it should validate (under its Plenary Powers) the name BUCHIIDAE as against the name AUCELLIDAE. In the vote taken on Voting Paper V.P.(56)16 eight out of the nine members of the Commission who voted in favour of the name *Buchia* as against the name *Aucella* voted in favour of the validation of the name BUCHIIDAE by the suppression of the older name AUCELLIDAE. That question, on which those who voted in favour of *Aucella* did not participate, is now resubmitted for decision under the procedure prescribed in *Declaration* 34. In order to secure a final decision on this portion of the present case Members of the Commission are invited in Part 2 of the annexed Voting Paper to vote either for, or against the proposal that, if the vote on Part 1 of the Voting Paper results in the adoption of the generic name *Buchia* and the rejection of the name *Aucella*, the family-group name BUCHIIDAE Cox be validated by the suppression under the Plenary Powers of the name AUCELLIDAE Lanusen for the purposes of the Law of Priority but not for those of the Law of Homonymy. It is hoped that every Member of the Commission will vote on this Part of the annexed Voting Paper irrespective of how he may have voted on Part 1 thereof.

## ANNEXE 1

### **Particulars of the specialists who have expressed opinions to the Office of the Commission on the *Aucella*/*Buchia* problem**

(Editorial Note : This Annexe is not reproduced here, since all the information contained in it has already been given in paragraph 3 of the document reproduced in paragraph 20 of the present *Opinion*, with the exception of the record of the receipt, since the above document was written, of a notification of support for Dr. Jeletzky's proposals from Professor Dr. W. O. Dietrich (*Humboldt-Universität zu Berlin*), to which express reference was made in paragraph 4 of the present document.<sup>3</sup>)

<sup>3</sup> The text of the communication here referred to has been reproduced in paragraph 25 of the present *Opinion*.

## ANNEXE 2

**Proposal submitted by J. A. Jeletzky in favour of the validation of the name "Aucella" Keyserling, 1846**

*Proposal now re-submitted for final decision under the provisions of "Declaration" 34*

(1) Under the Plenary Powers the under-mentioned generic name is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :—*Buchia* Rouillier, 1845 (Class Lamellibranchiata).

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* :—*Aucella* Keyserling, 1846 (gender : feminine) (type species by selection by Herrmannsen (1852) : *Avicula mosquensis* von Buch, 1844), as defined by the lectotype selected by Pavlov (1907).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology* : *mosquensis* von Buch, 1844, as published in the combination *Avicula mosquensis*, interpreted as specified in (2) above (specific name of type species of *Aucella* Keyserling, 1846).

(4) The under-mentioned generic name is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—*Buchia* Rouillier, 1845, 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* :—AUCELLIDAE Lanusen, 1897 (type genus : *Aucella* Keyserling, 1846).

(6) The under-mentioned family-group name is hereby placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—BUCHIIDAE Cox, 1953 (a junior objective synonym of AUCELLIDAE Lanusen, 1897, the respective type genera of these family-group taxa having the same species as type species).

## ANNEXE 3

**Action which under "Declaration" 34 would result in the event of the proposal in favour of the validation of "Aucella" Keyserling, 1846, failing to receive a sufficient number of votes to secure adoption**

(1) The request for the suppression under the Plenary Powers of the generic name *Buchia* Rouillier, 1845 (Class Lamellibranchiata) for the

purpose of validating the name *Aucella* Keyserling, 1846, is hereby rejected.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology*: *Buchia* Rouillier, 1845 (gender : feminine) (type species by monotypy : *Avicula mosquensis* von Buch, 1844, as defined by the lectotype selected by Pavlov (1907).

(3) The under-mentioned specific name is hereby placed on the *Official List of Specific Names in Zoology*:—*mosquensis* von Buch, 1844, as published in the combination *Avicula mosquensis* and interpreted as specified in (2) above (specified name of type species of *Buchia* Rouillier, 1845)

(4) The under-mentioned generic name is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*:—*Aucella* Keyserling, 1846 (a junior objective synonym of *Buchia* Rouillier, 1845).

(5) [For a proposal regarding the family-group name to be accepted in the event of the refusal to validate the generic name *Aucella* Keyserling, 1846, see Part 2 of the Voting Paper annexed to the present paper.]

**28. Issue of Voting Paper V.P.(O.M.)(57)8** : On 28th May 1957 a revised Voting Paper based upon the procedure prescribed in *Declaration 34* was issued in the present case. As in the case of the previous Voting Paper, the present Voting Paper was divided into two Parts, the first being concerned primarily with the question of the possible validation under the Plenary Powers of the name *Aucella* Keyserling, 1846, by the suppression of the name *Buchia* Rouillier, 1845, the second with the situation which would arise at the family-group-name level in the event of the Commission deciding on Part 1 to reject the proposal for the validation of the name *Aucella* Keyserling. The propositions on which the Members of the Commission were so invited to vote were as follows :—

**PART 1** : In this Part the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the generic name *Aucella* Keyserling, 1846, as set out in Annexe 2 of the paper bearing the Registered Number Z.N.(S.) 827 submitted by the Secretary simultaneously with



the present Voting Paper ” [i.e. in the Annexe numbered as above to the paper reproduced in paragraph 27 of the present *Opinion*].

The following note was attached to this Part of the Voting Paper :—

*Note* :—In the event of the above proposal not receiving sufficient votes to secure approval, the Ruling to be given in this case will, under the provisions of *Declaration* 34, be as set out in Annexe 3 to the paper referred to above.

PART 2 : In this Part the Members of the Commission were invited to vote either for, or against, “ the proposal that, if the vote on Part 1 of the present Voting Paper results in the adoption of the generic name *Buchia* Rouillier and the rejection of the name *Aucella* Keyserling, the family-group name BUCHIIDAE Cox be validated by the suppression under the Plenary Powers of the name AUCELLIDAE Lanusen.

**29. The Prescribed Voting Period for Voting Paper V.P.(O.M.) (57)8** : As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 28th June 1957.

**30. Particulars of the Voting on Part 1 of Voting Paper V.P.(O.M.)(57)8** : At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(57)8 was as follows :—

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

Lemche ; Hering ; Bradley (J.C.) ; Hankó ; Jaczewski ; Key ; Tortonese ; Bodenheimer ; Boschma ; Mayr ; Hemming ; Prantl ; Kühnelt ; Bonnet ; do Amaral ;

(b) *Negative Votes nine (9) :*

Riley ; Stoll ; Holthuis ; Esaki ; Dymond ; Vokes ;  
Mertens ; Sylvester-Bradley ; Cabrera ;

(c) *Voting Papers not returned one (1) :*

Miller.<sup>4</sup>

**31. Particulars of the Voting on Part 2 of Voting Paper V.P.(O.M.)(57)8 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(57)8 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) :*

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

(b) *Negative Votes two (2) :*

Key ; Mayr ;

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

Miller.<sup>4</sup>

**32. Declaration of Result of Vote on Voting Paper V.P.(O.M.)(57)8 :** On 29th June 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(O.M.)(57)8, signed a Certificate that the Votes cast on Part 1 and Part 2 of the above Voting Paper

---

<sup>4</sup> After the close of the Prescribed Voting Period a late vote was received from Commissioner Miller, in which he voted negatively on Part 1 and affirmatively on Part 2.

were as set out respectively in paragraphs 30 and 31 above. In the same Certificate Mr. Hemming made a declaration as follows :—

- (a) as regards Part 1 of Voting Paper V.P.(O.M.)(57)8 that the proposal submitted for the validation under the Plenary Powers of the generic name *Aucella* Keyserling, 1846, having failed to secure two votes out of every three votes cast, had been rejected and therefore that under *Declaration* 34 the alternative proposal set out in Annexe 3 to the paper submitted simultaneously with the above Voting Paper [i.e. the proposal set out in the Annexe numbered as above in the paper reproduced in paragraph 27 of the present *Opinion*] had been approved and adopted by the vote taken by the Commission on the foregoing Part of the above Voting Paper ;
- (b) as regards Part 2 of the Voting Paper cited above, that the question raised therein had become meaningful in consequence of the vote taken on Part 1 of the said Voting Paper as recorded in (a) above and that the proposal submitted therewith had been duly approved and adopted by the vote taken by the Commission on the foregoing Part of Voting Paper V.P.(O.M.)(57)8.

Finally, in the Certificate referred to above, Mr. Hemming made a declaration that the decisions recorded above were the decisions of the International Commission in the matters aforesaid.

**33. Preparation of the Ruling given in the present “ Opinion ” :**  
On 14th July 1957, 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 the several Parts of Voting Paper V.P.(O.M.)(57)8.

**34. 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* :—

*Aucella* Keyserling, 1846, *Wiss. Beobacht. Petschora* **1846** : 297—301, pl. 16

*Buchia* Rouillier, 1845, *Bull. Soc. imp. Nat. Moscou* **18** : 289

*mosquensis*, *Avicula*, von Buch, 1844, *Neue Jahrb. f. Min.* **1844** : 537

**35.** The following is the reference for the selection of a lectotype for a nominal species specified in the Ruling given in the present *Opinion* :—

For *Avicula mosquensis*  
von Buch, 1844

Pavlov (A.P.), 1907,  
*Nouv. Mém. Soc. imp. Nat.*  
*Moscou* **17**: 23-25

**36.** The references for the family-group names placed by the Ruling given in the present *Opinion* on the *Official List* and *Official Index* respectively of names of taxa of the family-group category are as follows :—

AUCELLIDAE Lanusen, 1897, *Paleozoomorpha* [transliteration of title from Russian Cyrillic characters] : 351

BUCHIIDAE Cox (L.R.), 1953, *Falkland Is. Dependencies Survey*, *Sci. Rep. No. 4* : 6

**37.** 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.

**38.** The present *Opinion* shall be known as *Opinion* Four Hundred and Ninety-Two (492) of the International Commission on Zoological Nomenclature.

DONE in London, this Fourteenth day of July, 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*

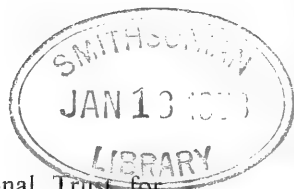
**FRANCIS HEMMING, C.M.G., C.B.E.**

Secretary to the Commission

VOLUME 17. Part 15. Pp. 255—264

## OPINION 493

Designation under the Plenary Powers of a type species  
in harmony with established usage for the genus *Torquesia*  
Douvillé, 1929 (Class Gastropoda)



**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office

41, Queen's Gate, London, S.W.7

1957

**Price Six Shillings and Sixpence**

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*Issued 10th December, 1957*

# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 493

### 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)

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1953) (*President*)

Professor Harold E. VOKES (*University of Tulane, Department of Geology, New Orleans,  
Louisiana, U.S.A.*) (12th August, 1953)

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

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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 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 493

### DESIGNATION UNDER THE PLENARY POWERS OF A TYPE SPECIES IN HARMONY WITH ESTABLISHED USAGE FOR THE GENUS "TORQUESIA" DOUVILLÉ, 1929 (CLASS GASTROPODA)

**RULING** :—(1) Under the Plenary Powers (a) all designations or selections of type species for the genus *Torquesia* Douvillé, 1929 (Class Gastropoda) made prior to the present Ruling are hereby set aside and (b) the nominal species *Turritella granulata* Sowerby (J. de C.), 1827, is hereby designated to be the type species of the above genus.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1232 :—

*Torquesia* Douvillé, 1929 (gender : feminine) (type species, by designation under the Plenary Powers in (1)(b) above : *Turritella granulata* Sowerby (J. de C.), 1827)

(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) *granulata* Sowerby (J. de C.), 1827, as published in the combination *Turritella granulata* (specific name of type species of *Torquesia* Douvillé, 1929) (Name No. 1451) ;

(b) *granulosa* Deshayes, 1832, as published in the combination *Turritella granulosa* (Name No. 1452).

## I. THE STATEMENT OF THE CASE

On 30th September 1955, Mr. J. Marwick (*Geological Survey of New Zealand, Wellington, New Zealand*) submitted to the International Commission on Zoological Nomenclature the following application for the use of the Plenary Powers to designate a type species in harmony with current usage for the nominal genus *Torquesia* Douvillé, 1929 (Class Gastropoda) :—

**Proposed use of the Plenary Powers to designate a type species for the genus “*Torquesia*” Douvillé, 1929 (Class Gastropoda)**

By J. MARWICK

(*Geological Survey of New Zealand, Wellington, New Zealand*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to designate a type species for the genus *Torquesia* Douvillé, 1929 (*Mem. geol. Surv. India*, Pal. Ind. (n.s.) **10** (Mem. 3, Fasc. 2) : 55) (Class Gastropoda) for the purpose of putting a stop to the confusion which has already begun to develop in consequence of the difficulties encountered in interpreting Douvillé's original description of this genus. The facts of this case are set out in the following paragraphs.

2. The generic name *Torquesia* was introduced by Douvillé for a group of Cretaceous TURRITELLIDAE (Class Gastropoda) in the following passage :—

Ces formes sont encore comprises par Cossmann dans son genre *Haustator*, elles en diffèrent nettement par leur ornementation et par leur répartition dans le temps ; leur développement est certainement plus ancien que celui des *Haustator* (*sensu stricto*) ; je proposerai de les distinguer sous le nom de *Torquesia*, en prenant pour type *T. granulosa* de Blackdown.

In his accompanying discussion Douvillé used the same phrase to denote this species, “*T. granulosa* de Blackdown”. Nowhere in his paper did he cite the name of the author of the name *granulosa*.

3. We may consider first whether the species which Douvillé here referred to was *Turritella granulosa* Deshayes, 1832 (*Descr. Coq. foss. Paris* **2** : 275). This is a species from the Middle Eocene of the Paris



Basin. It does not occur in the Cretaceous or at Blackdown. On the other hand there is a species named *Turritella granulata* Sowerby (J. de C.), 1827 (*Min. Conch.* 6 : 125), which is a Cretaceous species which occurs in the south-east of England and of which Blackdown is the type locality. It seems clear that Douvillé by some lapse wrote the name "*granulosa*" by mistake for the word "*granulata*" and that it was Sowerby's species of this name which he intended to make the type species of his genus *Torquesia*. That this is so is shown both by his repeated association of his species with the locality Blackdown and also by the emphasis which he placed on the importance of geological time in taxonomy. Moreover, he stated that the species which he grouped in the genus *Torquesia* were classed by Cossmann under *Haustator*. This is true of *Turritella granulata* Sowerby, but it is not true of *Turritella granulosa* Deshayes, which Cossmann in 1912 (: 120) placed in the genus *Peyrotia* established by him on that occasion.

4. Up to the present time the name *Torquesia* has been little used. This is probably because (1) this name apparently escaped the notice of some of the most prominent of the revisers of the TURRITELLIDAE (e.g. Wenz, 1939 ; Merriam, 1941) ; (2) many authors are chary of subdividing the genus *Turritella* Lamarck owing to the considerable amount of confusion which has prevailed in applying such divisions as have already been proposed. So far as I am aware, only three palaeontologists have used or cited the name *Torquesia* Douvillé. These are:—(a) Serra (1937 : 309) who placed in it two Upper Cretaceous species and a variety of one of these, from Tripoli, (b) Guaitani (1946 : 15), who identified two of Serra's forms in the Libyan Upper Cretaceous but did not discuss the taxonomic status of *Torquesia* ; (3) Bowles (1939 : 268) who listed *Torquesia* in the synonymy of *Turritella* Lamarck, 1799, and gave the type species as "*Turritella granulosa* Deshayes. Eocene of the Paris Basin".

5. The genus *Turritella* Lamarck contains over one thousand named species and subspecies, ranging in age from the Lower Cretaceous to Recent, and it is likely that the future will see a growing tendency to divide this group genus into separate genera and subgenera. It is very desirable therefore that the potential source of confusion represented by the present doubt as to what is the type species of *Torquesia* Douvillé should be cleared up as soon as possible. The Commission is accordingly asked to settle this matter by applying to the foregoing name the procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948, for determining the species to be accepted as the type species of a genus established on the basis of a misidentified type species (1950, *Bull. zool. Nomencl.* 4 : 158—159), and therefore to give a ruling that in accordance with the original intention of Douvillé the nominal species *Turritella granulata* Sowerby be treated as the type species of the genus *Torquesia* Douvillé.

6. The International Commission is accordingly asked :—
- (1) under the procedure prescribed for determining the species to be accepted as the type species of a genus based upon a misidentified type species, to use its Plenary Powers (a) to set aside all designations or selections of type species for the genus *Torquesia* Douvillé, 1929, made prior to the Ruling now asked for, and, having done so, to designate *Turritella granulata* Sowerby (J. de C.), 1827, to be the type species of the foregoing genus ;
  - (2) to place the under-mentioned generic name on the *Official List of Generic Names in Zoology* :—*Torquesia* Douvillé, 1929 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b) above : *Turritella granulata* Sowerby (J. de C.), 1827) ;
  - (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
    - (a) *granulata* Sowerby (J. de C.), 1827, as published in the combination *Turritella granulata* (specific name of type species of *Torquesia* Douvillé, 1929) ;
    - (b) *granulosa* Deshayes, 1832, as published in the combination *Turritella granulosa*.

#### References

- Bowles, E., 1939, *J. Paleont.* **13**(3) : 267—336  
 Cossmann, M., 1912, *Essais Paléonconch. comp.* **9** : 106—130  
 Guaitani, F., 1946, *Riv. ital. Paleont.* **52**(3) : 1—23  
 Merriam, C. W., 1941, *Bull. Dep. Geol. Univ. Calif.* **26**(1) : 1—129  
 Serra, G., 1937, *Boll. Soc. geol. ital.* **56**(3) : 303—315  
 Wenz, W., 1939, *Handbuch d. Paläozool.* **6**(1), Lief. 4 : 650—660

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt of Mr. Marwick's application the question of the designation of a type species for the nominal genus *Torquesia* Douvillé, 1929 (Class Gastropoda) was allotted the Registered No. Z.N.(S.) 1027.

**3. Publication of the present application :** The present application was sent to the printer on 30th November 1955 and was published

on 9th May 1956 in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (Marwick, 1956, *Bull. zool. Nomencl.* **11** : 353—355).

**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 9th May 1956 (a) in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Mr. Marwick's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general zoological serial publications. Owing to the fact that the genus *Torquesia* Douvillé was founded upon fossil forms, Public Notice regarding this application was given also to three palaeontological serial publications in Europe and America.

**5. Support received from L. R. Cox (British Museum (Natural History), London) :** On 21st November 1956, Dr. L. R. Cox (*British Museum (Natural History), London*) addressed the following letter of support to the Office of the Commission :—

*Torquesia* is a genus founded on fossil forms. Knowing Douvillé's habit of trusting to memory when citing generic and specific names and so unintentionally producing new names of both categories, I quite agree with Marwick that when Douvillé referred to "*T. granulosa* de Blackdown" he intended to say "*T. granulata* de Blackdown". I therefore agree also that *Turritella granulata* J. de C. Sowerby, from Blackdown, should be declared to be the type-species of *Torquesia*.

**6. No objection received :** No objection to the action proposed in the present case was received from any source.

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

**7. Issue of Voting Paper V.P.(56)47 :** On 30th November 1956, a Voting Paper (V.P.(56)47) was issued in which the Members

of the Commission were invited to vote either for, or against, "the proposal relating to the generic name *Torquesia Douvillé*, 1929, as set out in Points (1) to (3) in paragraph 6 on pages 354—355 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 *Opinion*].

**8. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd March 1957.

**9. Particulars of the Voting on Voting Paper V.P.(56)47 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)47 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) :*

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

(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.

**10. Declaration of Result of Vote :** On 3rd March 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)47, 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 14th August 1957, 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)47.

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

*granulata*, *Turritella*, Sowerby (J. de C.), 1827, *Min. Conch.* **6** : 125

*granulosa*, *Turritella*, Deshayes, 1832, *Descr. Coq. foss. Paris* **2** : 275

*Torquesia* Douvillé, 1929, *Mem. geol. Surv. India*, Pal. ind. (n.s.) **10** (Mem. 3, Fasc. 2) : 55

**13. Family-Group-Name Aspect :** No family-group-name problem arises in the present case, the genus *Torquesia* Douvillé, 1929, being currently placed in the family TURRITELLIDAE.

**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 Ninety-Three (493) of the International Commission on Zoological Nomenclature.

DONE in London, this Fourteenth day of August, 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**

**VOLUME 17. Part 16. Pp. 265—286**

## **OPINION 494**

Validation under the Plenary Powers of the generic name *Diloba* Boisduval, 1840, and designation under the same Powers of a type species in harmony with established usage for the genus *Episema* Ochseneimer, 1816 (Class Insecta, Order Lepidoptera)



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Nomenclature by the International Trust at its Publications Office  
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1957

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 494

### 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)

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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 (*University of Tulane, Department of Geology, New Orleans,  
Louisiana, 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 494

### VALIDATION UNDER THE PLENARY POWERS OF THE GENERIC NAME "DILOBA" BOISDUVAL, 1840, AND DESIGNATION UNDER THE SAME POWERS OF A TYPE SPECIES IN HARMONY WITH ESTABLISHED USAGE FOR THE GENUS "EPISEMA" OCHSENHEIMER, 1816 (CLASS INSECTA, ORDER LEPIDOPTERA)

**RULING** :—(1) Under the Plenary Powers :—

- (a) All selections of type species for the genus *Episema* Ochsenheimer, 1816, made prior to the present Ruling are hereby set aside and the nominal species *Phalaena glaucina* Esper, [1789], is hereby designated to be the type species of the foregoing genus.
- (b) 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 *Heteromorpha* Hübner, 1822 ;
  - (ii) the specific name *trimacula* [Denis & Schiffermüller], 1775, as published in the combination *Phalaena trimacula*.

(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) *Diloba* Boisduval, 1840 (gender : feminine) (type species, by monotypy : *Phalaena caeruleocephala* Linnaeus, 1758) (Name No. 1233) ;

- (b) *Episema* Ochsenheimer, 1816 (gender : neuter) (type species, by designation under the Plenary Powers in (1)(a) above : *Phalaena glaucina* Esper, [1789]) (Name No. 1234).

(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) *caeruleocephala* Linnaeus, 1758, as published in the combination *Phalaena caeruleocephala* (specific name of type species of *Diloba* Boisduval, 1840) (Name No. 1453) ;
- (b) *glaucina* Esper, [1789], as published in the combination *Phalaena glaucina* (specific name of type species of *Episema* Ochsenheimer, 1816) (Name No. 1454).

(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) *Heteromorpha* Hübner, 1806 (invalid because included in a work rejected for nomenclatorial purposes by the Ruling given in *Opinion* 97, as clarified by that given in *Opinion* 278) (Name No. 1061) ;
- (b) *Heteromorpha* Hübner, 1822, as suppressed under the Plenary Powers in (1)(b)(i) above (Name No. 1062) ;
- (c) *Episema* Cope & Jordan, 1877 (a junior homonym of *Episema* Ochsenheimer, 1816) (Name No. 1063).

(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 480 :—

*trimacula* [Denis & Schiffermüller], 1775, as published in the combination *Phalaena trimacula*, as suppressed under the Plenary Powers in (1)(b)(ii) 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) DILOBINAE Aurivillius (C.), 1889 (type genus : *Diloba* Boisduval, 1840) (Name No. 198) ;
- (b) EPISEMIDAE Guénée (A.), 1852 (type genus : *Episema* Ochseneimer, 1816) (Name No. 199).

## I. THE STATEMENT OF THE CASE

The question of the possible use of the Plenary Powers to ensure the continued employment of the generic names *Episema* Ochseneimer, 1816, and *Diloba* Boisduval, 1840, for use in the sense in which those names had been customarily employed in the literature was first brought to the attention of the Office of the Commission by Dr. Jiří Paclt (then of the *National Museum, Prague, Czechoslovakia*) in November 1947. At that time the resources of the Commission were wholly devoted to the preparations for the Thirteenth International Congress of Zoology to be held in Paris in the following year and it was accordingly impossible at that time to make any progress with this case. When, however, the Official Record of the Proceedings of the International Commission at its Paris Session had been

published in 1950, work was immediately resumed on applications on individual names at that time outstanding. Consultations were initiated with Dr. Paclt in 1952 in regard to certain questions of detail arising in connection with the present case and on 14th July of that year the following substantive application was submitted to the International Commission by Dr. Paclt :—

**Proposed use of the Plenary Powers to vary the type species of “*Episema*” Ochseneimer, 1816, thereby maintaining “*Diloba*” Boisduval, 1840, for use in its accustomed sense (Class Insecta, Order Lepidoptera)**

By JIŘÍ PACLT

(Bratislava, Czechoslovakia)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers in such a way as to ensure that the generic name *Diloba* Boisduval, 1840 (Class Insecta, Order Lepidoptera) shall continue to be available for use in its accustomed sense, that is, for *Phalaena caeruleocephala* Linnaeus, 1758. The name *Diloba* Boisduval is one of considerable importance in applied biology (see, for example, Schmidt & Goebel, 1881, *Die schädlichen und nützlichen Insecten* 2; Schmidt (G.), *Ent. Beih.* 6 : 13), and the displacement of this name in favour of the name *Episema* Ochseneimer, 1816, as would be required under a strict application of the ordinary Rules, would cause great and quite unjustified confusion. The details of this case are set out in the following paragraphs.

2. Hitherto the name *Episema* Ochseneimer, 1816 (*Schmett. Europa* 4 : 65) has been used for species of the subfamily DASYPOLIINAE of the family PHALAENIDAE. This usage is based upon the selection by Guénée in 1852 (*Spec. Gén. Lep.* 5(Noct. 1) : 173) of *Noctua trimacula* Hübner, [1800—1803] (*Samml. europ. Schmett.* : pl. Noct. 30, figs. 141—142) (the third of the species cited by Ochseneimer) to be the type species of this genus. It now appears, however, that the foregoing type selection by Guénée is invalid, for twenty-four years earlier Stephens (1828, *Ill. Brit. Ins.*, *Haustell.* 2 : 14) had already validly selected *Phalaena caeruleocephala* Linnaeus, 1758 (the first of the species cited by Ochseneimer) to be the type species of *Episema*. This type selection is extremely disturbing, for *Phalaena caeruleocephala* Linnaeus belongs to the subfamily DILOBINAE of the family TETHEIDAE and thus belongs to an entirely different family from that in which, in accordance with Guénée's type selection, the genus *Episema* Ochseneimer has hitherto been placed.

3. Stephens' selection of *Phalaena caeruleocephala* Linnaeus as the type species of *Episema* Ochsenheimer was never accepted, and twelve years later Boisduval in 1840 (*Gen. Index meth.* : 88) established the monotypical genus *Diloba* Boisduval (in the synonymy of which he cited " *Episema* Ochs., Stephens ") for the reception of this species.

4. It will be seen from the particulars given above that the strict application of the ordinary rules in the present case would be open to strong objection, for (1) the name *Episema* Ochsenheimer has been uniformly applied to *Noctua trimacula* Hübner, [1800—1803] (the oldest name for which is *Phalaena glaucina* Esper, [1789] (*Die Schmett.* 3 : pl. 81, figs. 4, 5, suppl. : 11), (2) the name *Diloba* Boisduval, 1840, has been uniformly applied to *Phalaena caeruleocephala* Linnaeus, 1758, (3) the displacement of the name *Episema* Ochsenheimer (as would be necessary) in favour of the quite unknown name *Derthisa* Walker, 1857 (*List. Specimens lep. Ins. Brit. Mus.* 11 : 534) would be most undesirable, (4) the transfer of the generic name *Episema* Ochsenheimer from the genus of the family PHALAENIDAE for which it is always employed to the genus of the family TETHEIDAE now known by the name *Diloba* Boisduval and the consequent disappearance of the latter name in synonymy would cause confusion not only in the systematics of the group but also in the literature of applied biology. It is to prevent these serious results from arising that the present application is made to the Commission.

5. The actual proposal now put forward to the International Commission on Zoological Nomenclature is that it should :—

- (1) use its Plenary Powers to set aside all type selections for the genus *Episema* Ochsenheimer, 1816, made prior to the decision now proposed to be taken, and, having done so, should designate *Bombyx glaucina* Esper, [1789], to be the type species of this genus ;
- (2) place the following generic names on the *Official List of Generic Names in Zoology* :—
  - (a) *Diloba* Boisduval, 1840 (gender of generic name : feminine) (type species, by monotypy : *Phalaena caeruleocephala* Linnaeus, 1758) ;
  - (b) *Episema* Ochsenheimer, 1816 (gender of generic name : neuter) (type species, by designation, as proposed in (1) above, under the Plenary Powers : *Bombyx glaucina* Esper, [1789]) ;
- (3) place the following trivial names on the *Official List of Specific Trivial Names in Zoology* :—
  - (a) *caeruleocephala* Linnaeus, 1758 as published in the combination *Phalaena caeruleocephala*, (trivial name of type species of *Diloba* Boisduval, 1840) ;

- (b) *glaucina* Esper, [1789], as published in the combination, *Bombyx glaucina*, (trivial name of type species of *Episema* Ochsenheimer, 1816).

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt of Dr. Paclt's preliminary application in 1947 the question of the use of the Plenary Powers to ensure the continued employment of the generic names *Episema* Ochsenheimer, 1816, and *Diloba* Boisduval, 1840 (Class Insecta, Order Lepidoptera) was allotted the Registered Number Z.N.(S.) 332.

**3. Publication of the present application :** The present application was sent to the printer on 4th July 1952 and was published on 29th August of that year in Part 10 of Volume 6 of the *Bulletin of Zoological Nomenclature* (Paclt, 1952, *Bull. zool. Nomencl.* **6** : 315—317).

**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 29th August 1952 (a) in Part 10 of Volume 6 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Paclt'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 entomological serials in Europe and America.

**5. Comments received in 1952 :** The publication of Dr. Paclt's application elicited comments in 1952 from two specialists :

(1) John G. Franclemont (then of the *U.S. Department of Agriculture, Agricultural Research Service, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A. and now of Cornell University, Ithaca, N.Y., U.S.A.*) ; (2) Wm. T. M. Forbes (*Cornell University, Ithaca*) (through Dr. Franclemont in a letter dated 22nd November 1952). Two communications were received from Dr. Franclemont, in the first of which he drew attention to the important bearing on the present case of the generic name *Heteromorpha* Hübner, 1822, a matter which had not been touched on by Dr. Paclt in his application.

**6. Communications received from J. G. Franclemont (then of the U.S. Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A. and now of Cornell University, Ithaca, N.Y., U.S.A.):** The following are the communications received from Dr. John G. Franclemont, to which reference has been made in paragraph 5 above :—

**(a) Letter dated 18th September 1952**

(Franclemont, 1952, *Bull. zool. Nomencl.* **9** : 145)

In Part 10 of volume 6 of the *Bulletin of Zoological Nomenclature* just received, I note a number of requests for use of the Plenary Powers of the Commission by Dr. Paclt. I am submitting the following comments on them.

*Dr. Paclt's application Z.N.(S.) 332 (pp. 315—317)*

This proposal ignores *Heteromorpha* Hübner (1806) (*Tentamen*, p. [1]), for which see *Opinion* 97, and *Heteromorpha* Hübner, 1822 (*Systematisch-alphabetische Verzeichniss*, etc., pp. 15 and 18). In the *Tentamen* the name included only *caeruleocephala* Linnaeus, 1758 ; while in the *Systematisch-alphabetische Verzeichniss* it included that species plus *pantherina* Hübner [1800—1803]. Kirby in 1892 (*Synoptic Catalogue of the Lepidoptera Heterocera*, vol. 1, p. 585) selected *Phalaena Bombyx caeruleocephala* Linnaeus, 1758, as the type species of *Heteromorpha* Hübner. Thus *Heteromorpha* Hübner, 1822, antedates *Diloba* Boisduval, 1840, and takes precedence over it, the genera being isogenotypic. *Heteromorpha* has been used for *caeruleocephala* by some authors.

Stephens, 1828 (*Illustrations of British Entomology*, vol. 2, p. 14) did not select *Phalaena Bombyx caeruleocephala* Linnaeus, 1758, as the type species of *Episema*, but Duponchel, 1829 (March) (*in* Godart,

*Histoire naturelle des Lépidoptères de France*, vol. 7, Part 2, p. 71) did select this species as the type species of *Episema* Ochsenheimer, 1816.

The present British Lists are using *Episema* for *caeruleocephala*, and this follows Hampson, 1913 (*Catalogue of the Lepidoptera Phalaenae in the British Museum*, vol. 13, p. 593). In 1906 Hampson (*Catalogue of the Lepidoptera Phalaenae in the British Museum*, vol. 6, p. 229) used *Derthisa* Walker, 1857, in the sense that Dr. Paclt calls "quite unknown name"; it is also used in Seitz's *Macrolepidoptera of the World* (vol. 3, p. 119, 1910).

The zoological position assigned to *caeruleocephala*, while really outside the consideration of the problem at hand, is open to question. The THYATIRIDAE (TETHEIDAE) possess an abdominal tympanum, *caeruleocephala* possesses a thoracic tympanum like the Noctuoidea (Phalaenoidea), the venation of the wings is like the NOCTUIDAE (PHALAENIDAE), and the structural characters of the larva place it in this family also, not the THYATIRIDAE.

### (b) Letter, with enclosure, dated 22nd November 1952

I have consulted with Dr. Forbes on the matter of *Diloba* and we do not agree. He would fix *caeruleocephala* as the type of that name, but what he would do about *Episema* and *Heteromorpha* I do not know. I have added an enclosure herewith which I think states my views clearly.

### Enclosure to the above letter from Dr. Franclemont

I would use *Heteromorpha* Hübner [1806] in preference to either *Diloba* Boisduval, 1840, or *Episema* Ochsenheimer, 1816, thus doing away with any ambiguity inherent in the use of *Episema*. The type designations for this last genus are as follows,

1. *Phalaena Bombyx caeruleocephala* Linnaeus, 1758, = *Episema caeruleocephala* (Linnaeus). Designated by Duponchel, in Godart, 1829, *Histoire Naturelle des Lépidoptères de France*, vol. 7, part 2, p. 71

2. *Noctua cincta* Fabricius, 1787 (nom. nov. *i-cinctum* Schiffermüller, 1776) = *Episema cincta* (Fabricius). Designated by Duponchel, in d'Orbigny, 1849, *Dictionnaire Universel d'Histoire Naturelle*, vol. 5, p. 367

3. *Bombyx trimacula* Schiffermüller, 1776, = *Episema trimacula* (Ochsenheimer). Designated by Guénée, 1852, *Histoire Naturelle des Insectes, Species Général des Lépidoptères*, vol. 5 (Noct. 1), p. 174



The name has been used for the first and last concepts, but not for the second since the 1850's. If an arbitrary decision has to be made I think it should be made by European workers to whom this whole question means more than it does to American workers.

**7. Investigation of the additional issues raised by Dr. John G. Franclemont or otherwise arising :** Preliminary investigations of the issues raised in the present case by Dr. John G. Franclemont (paragraph 6 above) or otherwise arising were initiated in 1953 but for some time these proceeded slowly owing to the difficulties experienced in obtaining the required information and, in particular, to the bibliographical problems involved in connection with one of the names cited in the present case. In the later stages of these investigations the Secretary entered into communication with Professor Dr. E. M. Hering (*Humboldt-Universität zu Berlin*) who kindly furnished most valuable information on certain of the issues still at that time outstanding, especially in regard to the family-group-name problems involved, a matter which had not been dealt with in the original application which had been submitted prior to the Fourteenth International Congress of Zoology, Copenhagen, 1953, and therefore prior to the time when the consideration of the position as regards names of this category was required.

**8. Comments by Dr. Paclt on the points raised by Dr. John G. Franclemont :** In May 1955 Mr. Hemming judged that the investigations referred to in paragraph 7 above had reached a stage at which Dr. Paclt might conveniently be invited to comment on the issues still at that time outstanding. In response to an invitation issued to him by the Secretary on 12th May 1955, Dr. Paclt on 23rd May 1955 submitted the following supplementary statement :—

The use of the name *Heteromorpha* Hübner for the genus in question (*Diloba*) does certainly not reach one per thousand of all references to that moth. Personally I know of three papers only in which the name *Heteromorpha* has been used. My application should include, no doubt, a request for the suppression of the name *Heteromorpha* Hübner, 1822.

2. Dr. Franclemont's objection that the generic name *Derthisa* Walker is not "a quite unknown name" results from the usage of the word "unknown" in my phrase. The word "unknown" has been used in my paper in the sense "unpopular", "not known in a

popular manner". I am naturally familiar with the fact that *Derthisa* has been used in Seitz's work and various catalogues. The use of this generic name seems to increase since the last years. However, *Episema* Ochsenheimer sensu Guénée is still the most frequently applied traditional name, not *Derthisa* Walker.

3. There is no unanimity of usage of the trivial names *trimacula* and *glauцина*. I am unable to indicate the proportions in which these synonyms are used by modern workers. At any rate, a strict application of the *Règles* is to be applied in this case. The only correct name is *glauцина* Esper (becoming *glaucinum* in the combination with *Episema*), for *trimacula* of the Vienna Catalogue is a *nomen dubium* and *trimacula* Hübner a junior synonym.

**9. Support received in 1956 from E. M. Hering (Humboldt-Universität zu Berlin) :** In the course of the consultations referred to in paragraph 7 above, Professor Dr. E. M. Hering (*Humboldt-Universität zu Berlin*) indicated as follows his support for Dr. Paclt's proposals in a letter dated 9th July 1956 :—

I warmly support the application by Dr. Paclt on the generic names *Episema* and *Diloba*.

**10. Submission to the International Commission by the Secretary in October 1956 of a Report on the supplementary issues raised in the present case subsequent to the publication of Dr. Paclt's application in 1952 :** On the conclusion of the investigations described in the preceding paragraphs Mr. Hemming, as Secretary, prepared on 18th October 1956 the following Report for the consideration of the International Commission on the supplementary issues raised in the present case subsequent to the publication of Dr. Paclt's application in December 1952 :—

**Issues involved in the application submitted by Dr. Jiří Paclt for the use of the Plenary Powers to secure the continued usage of the generic name "Diloba" Boisduval, 1840, in its accustomed sense (Class Insecta, Order Lepidoptera)**

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

(Secretary to the International Commission on Zoological Nomenclature)

The present note is concerned with an application submitted by Dr. Jiří Paclt (*Bratislava, Czechoslovakia*) for the use by the International Commission of its Plenary Powers for the purpose of securing

the continued usage in its accustomed sense of the generic name *Diloba* Boisduval, 1840 (Class Insecta, Order Lepidoptera). This application was published in 1952 (*Bull. zool. Nomencl.* 6 : 315—317) but the need for clearing up certain matters involved has hitherto prevented the submission to the Commission of a Voting Paper in regard to it. The investigation of certain of these matters at Bratislava would have been very difficult owing to lack of some of the books concerned. At the request of Dr. Paclt these matters have therefore been investigated by the Office of the Commission in conjunction with Professor E. M. Hering of Berlin.

2. The genus *Diloba* Boisduval, 1840, which Dr. Paclt seeks to save, is monotypical, having *Phalaena caeruleocephala* Linnaeus, 1758, as type species. It is stated in the application that this genus is of considerable importance in applied biology (see, for example, Schmidt & Goebel, 1881, *Die schädlichen und nützlichen Insecten* 2; Schmidt (G.), *Ent. Beih.* 6 : 13). The name *Dibola* Boisduval is not a junior homonym of some older name consisting of the same word but it is nevertheless not available for use in the sense in which it is currently employed because, as has now been discovered, its type species is also the type species of the older nominal genus *Episema* Ochseneimer, 1816\*. This discovery is doubly embarrassing from the point of view of maintaining stability in nomenclature (a) because it involves the confusing transfer of the name *Episema* to the genus hitherto known as *Diloba*, and (b) because it deprives the genus hitherto known as *Episema* of its customary name. To avoid these difficulties, Dr. Paclt asks the Commission to use its Plenary Powers to designate for *Episema* Ochseneimer a type species consistent with the accustomed usage of that name, thereby getting rid of the existing synonymy between the names *Episema* Ochseneimer and *Diloba* Boisduval.

3. There is, however, a further complication in this case represented by the generic name *Heteromorpha* Hübner. This name first appeared in [1806] in that author's ill-starred leaflet known as the *Tentamen* (: 1), where it was introduced for *Phalaena caeruleocephala* Linnaeus, 1758, which would therefore be the type species by monotypy of the genus so named if the *Tentamen* were a nomenclatorially acceptable work. This particular problem need not, however, detain us, for the International Commission has rejected the *Tentamen* for nomenclatorial purposes (*Opinion* 97) and the title of the leaflet has since been placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* (*Opinion* 278). Accordingly, as from the *Tentamen*, the name *Heteromorpha* Hübner possesses no status in zoological nomenclature and should now be placed on the *Official Index of*

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\* The nominal species *Phalaena caeruleocephala* Linnaeus, 1758, became the type species of *Episema* Ochseneimer, 1816, by selection by Duponchel, 1829 (*in* Godart, *Hist. nat. Lépid. France* 7(2) : 71). The statement in the application submitted in this case that the same type selection had previously been made by Stephens in 1828 (*Ill. Brit. Ins. Haustell.* 2 : 14) is incorrect.

*Rejected and Invalid Generic Names in Zoology.* Unfortunately, however, the word *Heteromorpha* was occasionally used as a generic name by subsequent authors who accepted, or were influenced by, its earlier use in the *Tentamen*. The first such use was by Hübner himself in 1822 (*Syst.-alph. Verz.* : 15, 18), where it was applied to two species, of which one, *Phalaena caeruleocephala* Linnaeus, 1758, was later selected as the type species (Kirby, 1892, *Syn. Cat. Lep. Het.* 1 : 585). Thus, technically the name *Heteromorpha* Hübner, 1822, is, like *Diloba* Boisduval, 1840, a junior objective synonym of *Episema* Ochsenheimer, 1816. Accordingly, as Dr. Paclt agrees (*in litt.*, 23rd May 1955), the validation of *Diloba* Boisduval sought in his application involves the suppression of the name *Heteromorpha* Hübner, 1822, as well as the designation of a traditionally acceptable species as the type species of *Episema* Ochsenheimer.

4. If the generic name *Episema* Ochsenheimer were to be used in the sense required by a strict application of the normal provisions of the *Règles*, the genus customarily known as *Episema* would need to be provided with a new name. The oldest such name is, as stated in Dr. Paclt's application, the name *Derithisa* Walker, 1857 (*List Spec. Lep. Ins. Brit. Mus.* 11 : 524). The type species of the genus so named, by selection by Hampson (1906, *Cat. Lep. Phal. Brit. Mus.* 6 : 229) is *Phalaena scoriacea* Esper, [1789] (*Die Schmett.*, Suppl. 3 Abschn. : 22, pl. 83, figs. 4, 5), a species which is subjectively placed by specialists in the genus *Episema*, as customarily interpreted.

5. The generic name *Episema* was introduced by Ochsenheimer (1816), *Schmett. Europa* 4 : 85) without diagnosis in a table of genera and species and its availability rests upon the fact that under this generic name he cited the specific names of 'previously established nominal species. Of the five species so cited the third was given as "*trimacula* W.V. [= the "*Wiener Verzeichniss*" of Denis & Schiffermüller] Hübn. (*dentimacula*, Hübn. Beitr.)". In 1852 (*Spec. gen. Lep.* 5 (Noct. 1) : 173) Guénée selected *trimacula* Hübner as the type species of this genus and the accepted interpretation of *Episema* rests upon this type selection. Unfortunately, a further complication arises at this point owing to differences of opinion among specialists as to the interpretation of the specific name *trimacula* as used in 1775 (in the combination *Phalaena Bombyx trimacula*) by Denis & Schiffermüller in the anonymous work commonly known as the "*Weiner Verzeichniss*", the first of the authorities cited by Ochsenheimer for the species which he called *trimacula* when establishing the genus *Episema*. It must first be noted that the currently accepted interpretation of Guénée's type selection of 1852 and therefore of the genus *Episema* Ochsenheimer is based not upon the *trimacula* of Denis & Schiffermüller but rather upon the *trimacula* of Hübner (the second of the authorities cited by Ochsenheimer for his *trimacula* when establishing his genus *Episema*). The interpretation of *trimacula* Hübner (*Noctua trimacula* Hübner, [1800—1803], *Samml.*

*europ. Schmett.* : pl. Noct. 30, figs. 141—142) offers no difficulty, for the species so treated by Hübner is (it is agreed) clearly the same as that to which earlier Esper ([1789]), *Die Schmett.*, Suppl. 3 Abschn. : 11, pl. 81, figs. 4, 5) had given the name *Phalaena glaucina*\*. It is this latter nominal species which Dr. Paclt in his application has asked should be designated under the Plenary Powers as the type species of *Episema Ochsenheimer*.

6. Under a General Directive issued by the Thirteenth International Congress of Zoology the Commission, when placing a generic name (in this case, the name *Episema Ochsenheimer*) on the *Official List of Generic Names in Zoology*, is under an obligation to place on the *Official List of Specific Names in Zoology* the specific name of the type species of the genus so named or, if that is not the oldest available name for the species in question, whatever is the oldest such name for it. It is necessary therefore to examine the question whether the specific name *glaucina* Esper, [1789], is the oldest available name for the species with which we are here concerned. The question at issue is whether the name *trimacula* as used by Hübner in [1800—1803] in the combination *Noctua trimacula* was (i) a new name or (ii) a usage of the name *trimacula* [Denis & Schiffermüller, 1775, as published in the combination *Phalaena Bombyx trimacula*. In the former case it would be a junior subjective synonym of *glaucina* Esper, [1789] (as it is treated by Dr. Paclt in his application to the Commission), while in the latter event the name *trimacula*, ranking from Denis & Schiffermüller, 1775, would on certain taxonomic assumptions be a senior subjective synonym of *glaucina* Esper and would be the oldest specific name subjectively available for the species concerned. From the evidence collected by the Office of the Commission it appears that the species in question was very generally known by the name *glaucina* Esper up to the year 1906 (*Cat. Lep. Het. Brit. Mus.* 6 : 229) when Hampson, on adopting the name *Derthisa* Walker, 1857, for the genus till then known as *Episema Ochsenheimer*, 1816 introduced also the name *trimacula* [Denis & Schiffermüller] for the species till then known as *glaucina* Esper, [1789], at the same time citing the name *glaucina* as a junior synonym of *trimacula*. Four years later this arrangement was given

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\* In the supplement to Volume 3 of Esper's work here referred to the group as a whole is styled "Bombyces" and eleven of the species dealt with in it, including that to which he gave the name *glaucina*, are actually cited as belonging to a genus "Bombyx". It is evident, however, from an inspection of the Supplement as a whole that the citation of "Bombyx" was no more than an inadvertent variant of "Phalaena Bombyx", the formula applied to 37 out of the total of 48 names involved (a 49th name being cited as "Phalaena Attacus"). Moreover in some of the cases where the generic name used appears to be "Bombyx" and not "Phalaena Bombyx", the latter formula is used in the running heading for the page concerned. All the specific names published in this Supplement should therefore be treated as having been published in combination with the generic name *Phalaena*, in most cases so expressed but in the eleven cases referred to above only so understood.

much wider publicity by its adoption by Warren (W.) (in [1910]) (in Volume 3 : 119) of Seitz's *Grossschmetterlinge der Erde*. In the above work Warren also used the generic name *Derthisa* Walker and applied the name *trimacula* [Denis & Schiffermüller] to the species here under consideration, retaining *glaucina* Esper as the name for an infra-specific form of the same species. Professor E. M. Hering has pointed out (*in litt.*, 9th July 1956) that, in taking the action described above, the foregoing authors overlooked the very important and almost contemporary evidence to the contrary provided by Laspeyres (J.H.), (1803, *Kritische Revision der neuen Ausgabe des systematischen Verzeichnisses von den Schmetterlingen der Wienergegens*) who showed in a most convincing manner that the name *Phalaena Bombyx trimacula* [Denis & Schiffermüller] applied to a quite different species from that discussed above, being applicable to the species figured by Hübner in 1790 as *Phalaena Noctua i-cinctum* (*Beiträge zur Geschichte der Schmetterlinge* 2 : [35]—36, 123, pl. 1, fig. B), i.e. the species now known as *Perigraphe cincta* (Fabricius, 1787) (= *Noctua cincta* Fabricius, 1787, *Mantissa Ins.* 2 : 155). Professor Hering reports that some authors followed the lead set by Warren in Seitz's *Grossschmetterlinge* but that in general the name *glaucina* Esper has held its own, being the name still in general use. Professor Hering concludes therefore that, while the name *trimacula* [Denis & Schiffermüller], probably represents the same species as *cincta* Fabricius, it must be regarded as being no more than a *nomen dubium*, the occasional intrusion of which into the literature serves no useful purpose, leading only to confusion by upsetting either the name *cincta* Fabricius or the name *glaucina* Esper. As this name possesses nothing but a nuisance value, the sensible course seems to be for the Commission to suppress it under its Plenary Powers, thus making possible the definitive acceptance of *glaucina* Esper as the oldest available name for the species here in question.

7. In the application submitted in this case Dr. Paclt pointed out (: 316) that the genus *Diloba* Boisduval is the type species of a sub-family DILOBINAE. This name, Professor Hering informs me (*in litt.*, 29th November 1956), was first published by Aurivillius (C.) in 1889 (*Nordens Fjärilar Handbok i Sveriges, Norges, Danmarks och Finlands Macrolepidoptera*). This family-group name appeared in this work both as a subfamily name (DILOBINAE) (: 79) and as a family name (DILOBIDAE) (: 95). Professor Hering informs me also (in the letter cited above) that the generic name *Episema* Ochseneheimer was first made the base of a family-group name by Guénéé (A.) in 1852 (*Hist. nat. Ins.*, Spec. gén. 5 (Noct. 1) : 168, 407). On the first of the pages cited this name appeared in the vernacular (French) form "EPISEMIDES", but on the later page in the correct form as EPISEMIDAE. These family-group names should now be placed on the *Official List of Family-Group Names in Zoology*.

8. It should be noted that there is a generic name *Episema* Cope & Jordan, 1877 (*Proc. Acad. nat. Sci. Philad.* 1877 : 77) in the Class

Pisces which is a junior homonym of *Episema* Ochsenheimer, 1816, and is therefore invalid.

9. On the question of the relative usage in the literature of the names *Heteromorpha* Hübner, *Episema* Ochsenheimer and *Diloba* Boisduval for the genus typified by *Phalaena caeruleocephala* Linnaeus, 1758, it appears from the information furnished in Dr. Paclt's application, as supplemented by the material provided by Professor Hering (1) that the name *Episema* Ochsenheimer was not used in the above sense until 1906 and that since that date it has been so used only to a limited extent, (2) that the name *Heteromorpha* Hübner has been used even less than the name *Episema* Ochsenheimer and that, when used, it has normally been attributed to the *Tentamen* of 1806 (as from which date it is an invalid name) and not from 1822 when it was first validly published, (3) that prior to 1906 the name *Diloba* Boisduval was the undisputed name for this genus, save for the few workers who then used the name *Heteromorpha* Hübner and that despite the action of Hampson and Warren this name has since remained in use and is the name currently accepted for the genus. There appears to be agreement that, if it were necessary to apply the name *Episema* Ochsenheimer to the genus typified by *Phalaena caeruleocephala* Linnaeus, the name which would need to be used for the genus hitherto known by the name *Episema* would be *Derthisa* Walker, 1857. That name has in fact been used by Hampson, Warren and others who have accepted the switch in the application of the name *Episema* required under a strict application in this case of the normal provisions of the *Règles*.

10. The publication of Dr. Paclt's application and the issue of Public Notices regarding the possible use of the Commission's Plenary Powers to secure the end sought elicited comments from three specialists: (1) J. G. Franclemont (then of the *U.S. Department of Agriculture, Bureau of Entomology and Plant Quarantine, Washington, D.C., U.S.A.*) (*Bull. zool. Nomencl.* 9 : 145); (2) Wm. T. M. Forbes (*Cornell University, Ithaca, N.Y., U.S.A.*) (through J. G. Franclemont in a letter dated 22nd November 1952); (3) E. M. Hering (*Humboldt-Universität zu Berlin*). Dr. Franclemont would prefer *Heteromorpha* Hübner, 1806 rather than either *Diloba* or *Episema* "thus doing away with any ambiguity inherent in the use of *Episema*" but added that "if an arbitrary decision has to be made, I think it should be made by European workers to whom this whole question means more than it does to American workers" (enclosure to letter dated 22nd November 1952). Dr. Forbes "would fix *caeruleocephala* as the type of" *Diloba*. Dr. Hering warmly supports the validation of *Diloba* Boisduval, 1840, as the name for the genus typified by *Phalaena caeruleocephala* Linnaeus, 1758, the recognition of *Phalaena glaucina* Esper, [1789], as the oldest available name for the species concerned and the designation of that species to be the type species of the genus *Episema* Ochsenheimer, 1816.

11. In the light of the information given in the present note it is possible to re-state as follows the action which the International Commission would need to take if it were to decide in favour of granting the application submitted by Dr. Paclt in the present case, namely that it should :—

(1) use its Plenary Powers :—

(a) to set aside all type selections for the genus *Episema* Ochsenheimer, 1816, made prior to the Ruling now asked for, and, having done so to designate *Phalaena glaucina* Esper, [1789], to be the type species of the foregoing genus ;

(b) to suppress for the purposes of the Law of Priority but not for those of the Law of Homonymy :—

(i) the generic name *Heteromorpha* Hübner, 1822 ;

(ii) the specific name *trimacula* [Denis & Schiffermüller], 1775, as published in the combination *Phalaena trimacula* ;

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

(a) *Diloba* Boisduval, 1840 (gender : feminine) (type species, by monotypy : *Phalaena caeruleocephala* Linnaeus, 1758) ;

(b) *Episema* Ochsenheimer, 1816 (gender : neuter) (type species, by designation under the Plenary Powers under (1)(a) above : *Phalaena glaucina* Esper, [1789]) ;

(3) place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—

(a) *caeruleocephala* Linnaeus, 1758, as published in the combination *Phalaena caeruleocephala* (specific name of type species of *Diloba* Boisduval, 1840) ;

(b) *glaucina* Esper, [1789], as published in the combination *Phalaena glaucina* (specific name of type species of *Episema* Ochsenheimer, 1816) ;

(4) place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

(a) *Heteromorpha* Hübner, 1806 (invalid because included in a work rejected for nomenclatorial purposes by the Ruling given in *Opinion 97* as clarified by that given in *Opinion 278*) ;



- (b) *Heteromorpha* Hübner, 1822, as suppressed under the Plenary Powers under (1)(b)(i) above ;
  - (c) *Episema* Cope & Jordan, 1877 (a junior homonym of *Episema* Ochseneimer, 1816) ;
- (5) place the under-mentioned specific name on the *Official Index of Rejected and Invalid Specific Names in Zoology*: *trimacula* [Denis & Schiffermüller], 1775, as published in the combination *Phalaena trimacula*, as suppressed under the Plenary Powers under (1)(b)(ii) above ;
- (6) place the under-mentioned family-group names on the *Official List of Family-Group Names in Zoology* :—
- (a) DILOBINAE Aurivillius (C.), 1889 (type genus : *Diloba* Boisduval, 1840) ;
  - (b) EPISEMIDAE Guénée (A.), 1852 (type genus : *Episema* Ochseneimer, 1816).

12. I am greatly indebted to Professor Hering for information and advice in preparing the present note which in its present form has been approved by him in draft.

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

**11. Issue of Voting Paper V.P.(56)49 :** On 31st December 1956 a Voting Paper (V.P.(56)49) was issued in which the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the generic names *Diloba* Boisduval, 1840, and *Episema* Ochseneimer, 1816, submitted by Dr. Paclt [i.e. the proposal reproduced in paragraph 1 of the present *Opinion*] as formulated in paragraph 11 of the Supplementary Note submitted by the Secretary simultaneously with the present Voting Paper ” [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 10 of the present *Opinion*].

**12. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 31st March 1957.

**13. Particulars of the Voting on Voting Paper V.P.(56)49 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)49 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) :*

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

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

Mertens ;

(c) *Prevented from voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

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

Prantl.

**14. Declaration of Result of Vote :** On 1st April 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)49, signed a Certificate that the Votes cast were as set out in paragraph 13 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.

**15. Preparation of the Ruling given in the present "Opinion":**

On 20th August 1957 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)49.

**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* :—

*caeruleocephala*, *Phalaena*, Linnaeus, 1758, *Syst. Nat.* (ed. 10)  
1 : 504

*Diloba* Boisduval, 1840, *Gen. Index meth. europ. Lepid.* : 88

*Episema* Ochsenheimer, 1816, *Schmett. Europa* 4 : 65

*Episema* Cope & Jordan, 1877, *Proc. Acad. nat. Sci. Philad.*  
1877 : 77

*glaucina*, *Phalaena*, Esper, [1789], *Die Schmett.*, Suppl. 3  
Abschn. : 11, pl. 81, figs. 4, 5

*Heteromorpha* Hübner, 1806, *Tentamen* : 1

*Heteromorpha* Hübner, 1822, *Syst.-alph. Verz.* : 15, 18

*trimacula*, *Phalaena*, [Denis & Schiffermüller], 1775, *Ankündigung  
syst. Werk. Schmett. Wiener Gegend* : 59

**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* :—

DILOBINAE Aurivillius (C.), 1889, *Nordens Fjärilar Handbok i  
Sveriges, Norges, Danmarks och Finlands Macrolepidoptera* : 79

EPISEMIDAE Guénée (A.), 1852, *Hist. nat. Ins.*, Spec. gén. 5  
(Noct. 1) : 168, 407

18. 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*.

19. 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.

20. The present *Opinion* shall be known as *Opinion* Four Hundred and Ninety-Four (494) of the International Commission on Zoological Nomenclature.

DONE in London, this Twentieth day of August, 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

VOLUME 17. Part 17. Pp. 287—322

## OPINION 495

Designation under the Plenary Powers of a type species in harmony with accustomed usage for the nominal genus *Unio* Philipsson, 1788 (Class Pelecypoda) and validation under the same Powers of the family-group name MARGARITIFERIDAE Haas, 1940



**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

**Price One Pound Ten Shillings and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 495

### A. The Officers of the Commission

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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, as prescribed by the International Congress of Zoology*)

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(1st January 1947)

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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 Storia Naturale "G. Doria," Genova, Italy*)  
(16th December 1954)

## OPINION 495

**DESIGNATION UNDER THE PLENARY POWERS OF A  
TYPE SPECIES IN HARMONY WITH ACCUSTOMED  
USAGE FOR THE NOMINAL GENUS " UNIO "   
PHILIPSSON, 1788 (CLASS PELECYPODA)  
AND VALIDATION UNDER THE SAME  
POWERS OF THE FAMILY-GROUP NAME  
" MARGARITIFERIDAE " HAAS, 1940**

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

(a) All selections of type species for the genus *Unio* Philipsson, 1788 (Class Pelecypoda) made prior to the present Ruling are hereby set aside and the nominal species *Mya pictorum* Linnaeus, 1758, is hereby designated to be the type species of the foregoing genus.

(b) The family-group name MARGARITANINAE Ortmann, 1910 (type genus : *Margaritana* Schumacher, 1817) is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy.

(2) It is hereby ruled that the spelling *Margartifera* Schumacher, 1816, is an Invalid Original Spelling and that the emendation of this name to *Margaritifera* is a Valid Emendation.

(3) It is hereby ruled that of the two Original Spellings *Lymnaea* and *Lymnoea* used for the same genus by Lamarck in the same paper in 1799 the spelling *Lymnaea* is the Valid Original Spelling, having been so selected to the exclusion of the spelling *Lymnoea* by Lamarck acting as First Reviser in 1801.

(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) *Unio* Philipsson, 1788 (gender : masculine) (type species, by designation under the Plenary Powers in (1)(a) above : *Mya pictorum* Linnaeus, 1758) (Name No. 1235) ;
- (b) *Margaritifera* (ruled under (2) above to be a Valid Emendation of *Margartifera*) Schumacher, 1816 (gender : feminine) (type species, by monotypy : *Mya margaritifera* Linnaeus, 1758) (Name No. 1236) ;
- (c) *Lymnaea* Lamarck, 1799 (a spelling ruled under (3) above to be the Valid Original Spelling) (gender: feminine) (type species, by selection by Fleming (J) (1818) : *Helix stagnalis* Linnaeus, 1758) (Name No. 1237).

(5) 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) *pictorum* Linnaeus, 1758, as published in the combination *Mya pictorum* (specific name of type species of *Unio* Philipsson, 1788) (Name No. 1455) ;
- (b) *margaritifera* Linnaeus, 1758, as published in the combination *Mya margaritifera* (specific name of type species of *Margaritifera* (emend. of *Margartifera*) Schumacher, 1816) (Name No. 1456) ;
- (c) *auricularius* Spengler, 1793, as published in the combination *Unio auricularius* (Name No. 1457) ;



(6) It is hereby directed that the endorsement “ specific name of type species of *Lymnaea* Lamarck, 1799 ” be added to the entry relating to the specific name *stagnalis* Linnaeus, 1758, as published in the combination *Helix stagnalis*, made on the *Official List of Specific Names in Zoology* as Name No. 410 by the Ruling given in *Opinion* 336.

(7) 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) *Limnaea* Poli, 1791 (a junior objective synonym of *Unio* Philipsson, 1788) (Name No. 1064) ;
- (b) *Lymnoea* Lamarck, 1799 (a name which under the Ruling given in (3) above is an Invalid Original Spelling for *Lymnaea* Lamarck, 1799) (Name No. 1065) ;
- (c) *Limnium* Oken, 1815 (a name published in a work rejected for nomenclatorial purposes by the Ruling given in *Opinion* 417, and in addition an Invalid Original Spelling for *Lymnium* Oken, 1815) (Name No. 1066) ;
- (d) *Lymnaea* Oken, 1815 (a name published in a work rejected for nomenclatorial purposes by the Ruling given in *Opinion* 417, and in addition an Invalid Original Spelling for *Lymnium* Oken, 1815) (Name No. 1067) ;
- (e) the under-mentioned names, each of which is an Erroneous Subsequent Spelling for *Lymnaea* Lamarck, 1799 :—
  - (i) *Limnaea* Blainville, 1823 (Name No. 1068) ;
  - (ii) *Limnaeus* Pfeiffer (C.), 1821 (Name No. 1069) ;
  - (iii) *Limnea* Fleming, 1828 (Name No. 1070) ;

- (iv) *Limneus* Draparnaud, [1801] (Name No. 1071) ;
  - (v) *Limnoea* Gourdon, 1889 (Name No. 1072) ;
  - (vi) *Limnoeus* Shuttleworth, 1872 (Name No. 1073) ;
  - (vii) *Lymnaeus* Cuvier (G.L.C.F.D.), 1817 (Name No. 1074) ;
  - (viii) *Lymnea* Link, 1807 (Name No. 1075) ;
  - (ix) *Lymneus* Férussac, 1812 (Name No. 1076) ;
  - (x) *Lymnoea* Suter, 1913 (Name No. 1077) ;
  - (xi) *Lymnoeus* Michelin, 1831 (Name No. 1078) ;
  - (xii) *Lymnula* Rafinesque, 1819 (Name No. 1079) ;
  - (xiii) *Lymnus* Montfort, 1810 (Name No. 1080) ;
- (f) *Lymnium* Oken, 1815 (a name published in a work rejected for nomenclatorial purposes by the Ruling given in *Opinion* 417) (Name No. 1081) ;
- (g) *Margaritana* Schumacher, 1817 (a junior objective synonym of *Margaritifera* (emend. of *Margartifera*) Schumacher, 1816) (Name No. 1082) ;
- (h) *Margartifera* Schumacher, 1816 (a spelling rejected under (2) above as an Invalid Original Spelling for *Margaritifera*) (Name No. 1083).
- (8) The under-mentioned specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* with the Name Number 481 :—
- fluviatilis* Schumacher, 1816, as published in the combination *Margaritifera* [sic] *fluviatilis* (a junior objective synonym of *margaritifera* Linnaeus,

1758, as published in the combination *Mya margaritifera*).

(9) 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) LYMNAEIDAE (correction of LYMNIDIA) Rafinesque, 1815 (type genus : *Lymnaea* Lamarck, 1799) (Name No. 200) ;
- (b) UNIONIDAE Fleming (J.), 1828 (type genus : *Unio* Philipsson, 1788) (Name No. 201) ;
- (c) MARGARITIFERIDAE Haas (F.), 1940, as validated under the Plenary Powers in (1)(b) above (type genus : *Margaritifera* (emend. of *Margartifera*) Schumacher, 1816) for use by those workers who consider on taxonomic grounds that the genera *Margaritifera* Schumacher, 1816, and *Unio* Philipsson, 1788 (type genus of UNIONIDAE Fleming, 1828) are referable to different family-group taxa) (Name No. 202).

(10) 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) LYMNIDIA Rafinesque, 1815 (type genus : *Lymnaea* Lamarck, 1799) (an Invalid Original Spelling for LYMNAEIDAE) (Name No. 231) ;
- (b) LYMNAEADAE Gray (J.E.), 1824 (type genus : *Lymnaea* Lamarck, 1799) (an Invalid Original Spelling for LYMNAEIDAE) (Name No. 232) ;

- (c) MARGARITANINAE Ortmann, 1910, as suppressed under the Plenary Powers in (1)(b) above (type genus : *Margaritana* Schumacher, 1817) (Name No. 233).

## I. THE STATEMENT OF THE CASE

In February 1950 Mr. A. E. Ellis (*Epsom College, Epsom, Surrey, England*) addressed a preliminary communication to the Office of the Commission on the question of the possible use of the Plenary Powers for the purpose of preserving the well-known generic name *Unio* Philipsson, 1788 (Class Pelecypoda) for use in its accustomed sense. Various circumstances at that time prevented any immediate progress being made in regard to this problem. In 1955, however, this case was reviewed jointly by the applicant and the Secretary with a view to the preparation of a formal application which would take account not only of the issues involved at the generic-name level but also those arising at the family-group-name level. These discussions were completed on 18th October 1955 when Mr. Ellis submitted the following definitive application to the International Commission :—

**Proposed use of the Plenary Powers to validate the currently  
accepted usage of the generic name "Unio"  
Philipsson, 1788 (Class Pelecypoda)**

By A. E. ELLIS

(*Epsom College, Epsom, England*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to validate the currently accepted usage of the very well-known generic name *Unio* Philipsson, 1788 (Class Pelecypoda). The facts of this case are set out below.

2. The following are the references for the generic names involved in the present case :—

- (a) *Unio* Philipsson, 1788, *Dissertatio historico-naturalis sistens nova Testaceorum Genera* : 16 (type species, by selection by Turton, 1831 (*Manual Land & Fresh-water Shells Brit. Islands* : 3) : *Mya margaritifera* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 671)

*Note 1* : In making the above type selection Turton cited *Mya margaritifera* Montagu, 1803 (*Testac. brit.* : 33). Montagu did not, however, publish this as a new name, his employment of this name being only a later usage of the name *Mya margaritifera* Linnaeus, 1758.

*Note 2* : This genus was established in a thesis by Philipsson, working under his master Retzius at the University of Lund. By the law or custom then obtaining the professor was treated as the author of all papers which a student under him defended. For this reason the name *Unio* and other names in this thesis have been attributed by some authors to Retzius. It is clear, however, from the title page that Philipsson was the real author of this *Dissertatio* and the name *Unio* is therefore correctly attributable to him and not to Retzius.

- (b) *Limnaea* Poli, 1791, *Testacea utriusque Siciliae* **1** : 31 (type species, by selection by Ellis, 1947 (*Synopsis Brit. Fauna* (Linn. Soc.) No. **5** : 14) : *Mya pictorum* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 671)
- (c) *Lymnaea* (emend. of *Lymnoea*) Lamarck, 1799, *Mém. Soc. Hist. nat.*, Paris, **1** : 75 (type species, by selection by Fleming, 1818 (*Ency. brit. Suppl. 4th-6th Eds.* **3** : 313) : *Helix stagnalis* Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 774). (For discussion of the original orthography of this generic name see paragraph 8 below.)
- (d) *Lymnium* Oken, 1815, *Lehrb. Naturgesch.* **3** (Zool.) (Abth. 1) : 236, 237 (type species, by monotypy : *Mya pictorum* Linnaeus, 1758)
- (e) *Limnium* Oken, 1815, *Lehrb. Naturgesch.* **3** (Zool.) (Abth. 1) : viii (an Erroneous Original Spelling for *Lymnium* Oken, 1815)
- (f) *Lymnaea* Oken, 1815, *Lehrb. Naturgesch.* **3** (Zool.) (Abth. 1) : 236 (cited as a synonym of *Unio*)
- (g) *Margartifera* (typographical error *Margaritifera*) Schumacher, 1816, *Overs. K. Dansk. Vidensk. Selsk. Forh.* **7** : 7 (type species, by monotypy : *Margartifera fluviatilis* Schumacher, 1816, *Overs. K. Dansk. Vidensk. Selsk. Forh.* **7** : 7 (? substitute name for *Mya margaritifera* Linnaeus, 1758))
- (h) *Margaritana* Schumacher, 1817, *Essai d'un nouveau Système des Habitations des Vers Testacés* : 41, 123 (type species, by monotypy : *Margartifera fluviatilis* Schumacher, 1816)

- (i) *Mysca* Turton, 1822, *Conchylia Insularum britannicarum* : xlv, 243 (type species, by selection by Turton, 1831 (*Manual Land & Freshwater Shells Brit. Islands* : 3) : *Mya ovalis* Montagu, 1803, *Test. brit.* : 34 (a junior subjective synonym of *Unio tumidus* Philipsson, 1788, *Dissert. hist.-nat. nov. Test. Genera* : 17))

3. The well-known genus *Unio* (Order Eulamellibranchiata) was established by Philipsson in 1788 for certain freshwater mussels now classified in the superfamily UNIONACEA or NAIADES. As so established this genus included *Unio margaritiferus* (= *Mya margaritifera* Linnaeus, 1758), *Unio pictorum* (= *Mya pictorum* Linnaeus, 1758), *Unio tumidus* Philipsson, 1788 (: 17), and other species. The first of the above species was selected as the type species of the genus *Unio* by Turton in 1831. In 1847, Gray (J.E.) (*Proc. zool. Soc. Lond.* **15**(178) : 196), overlooking Turton's selection of *Mya margaritifera* Linnaeus, 1758, selected *Mya pictorum* Linnaeus, 1758, as the type species of *Unio*.

4. For so long as all the species included by Philipsson in his genus *Unio* continued to be regarded as congeneric, no difficulty arose, and the generic name *Unio* was used by most XIXth century authors for all the European freshwater UNIONACEA except those placed in the genus *Anodonta* Lamarck, 1799. During the present century, however, anatomical investigations have shown that *Mya margaritifera* Linnaeus differs in so many important features from the other species included in the genus *Unio* that it has been separated from them as a distinct genus and by some authors has even been placed in a separate family. The generic name *Margaritifera* (emend. of *Margartifera*) Schumacher, 1816, or its junior objective synonym *Margaritana* Schumacher, 1817, was accordingly brought back into use for *Mya margaritifera* Linnaeus, 1758, and the allied species *Unio auricularius* Spengler, 1793 (*Skriv. Nat. Hist. Selsk. København* **3** (Hft. 1) : 54), and is now universally employed in this sense. Under this arrangement the name *Unio* is retained for *Unio pictorum* (Linnaeus) and its allies, following Gray's type-selection of 1847.

5. In a paper published in 1941 (*J. Conch.* **21** : 265, 273) Kennard, relying upon Turton's type-selection of 1831, restored *Mya margaritifera* Linnaeus to *Unio* and revived the obscure and long-forgotten name *Lymnium* Oken, 1815, for *Mya pictorum* Linnaeus. Kennard ignored the earlier name *Limnaea* Poli, 1791, on the ground that Poli's "work has been rejected for nomenclatorial purposes" (Kennard & Woodward, 1926, *Synonymy of the British non-marine Mollusca* : 402). Poli's work is definitely binominal in character and it is not clear why Kennard considered that it should be rejected. In any case this statement that Poli's work had already been rejected is incorrect, for, as I am informed by Mr. Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, no Ruling rejecting this work has been given by the Commission. Kennard pointed out (verbally) that, if the name *Lymnium* Oken, as well as the name *Limnaea*

Poli, were to be rejected, the oldest available name for this group would be *Mysca* Turton, 1822, the type species of which is *Mya ovalis* Montagu, 1803, which is identical with *Unio tumidis* Philipsson, 1788, a species which is regarded as congeneric with the species now known as *Unio pictorum* (Linnaeus).

6. In considering this matter we may fortunately set on one side the name *Lymnium* Oken for, since the present application was first submitted to the International Commission, that body has examined the question of the availability for nomenclatorial purposes of Oken's *Lehrbuch* (Hemming, 1954, *Bull. zool. Nomencl.* 9 : 193—207) and, as I am informed by the Secretary, has decided that in the foregoing work Oken did not consistently apply the principles of binominal nomenclature and therefore that new names published in it did not thereby acquire the status of availability. I am further informed by Mr. Hemming that the foregoing decision has been embodied by the Commission in *Opinion* 417 (now in the press)<sup>1</sup>. It is therefore no longer necessary in the present case to consider further the name *Lymnium* Oken and its two variant spellings beyond noting that all of these names should now be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*.

7. Even after the disappearance of the Oken names discussed above we are still left with a twofold difficulty namely (1) that, so long as Turton's selection of *Mya margaritifera* Linnaeus as the type species of *Unio* Philipsson remains valid, the name *Unio* cannot be used for the group to which it has for so long been applied and (2) that this group would have to be known by the particularly unsuitable name *Limnaea* Poli. The use of this name for this genus could not fail to cause the greatest conceivable confusion owing to its similarity to the name *Lymnaea* Lamarck, 1799, a name which has been in continuous use for a genus of freshwater Gastropoda for over one hundred and fifty years. There is therefore the strongest possible case for the use by the Commission of its Plenary Powers for the purpose of preventing the devastating confusion which would result from the application of the normal provisions of the *Règles* in this case. The action required for this purpose is that the Commission should use its Plenary Powers to set aside all existing type selections for the genus *Unio* Philipsson, 1788, and having done so, to designate *Mya pictorum* Linnaeus, 1758, to be the type species of this genus. This action would remove all the difficulties in the present case, for (a) it would restore the generic name *Unio* to the group of species to which that name has always been applied and (b) would render harmless the name *Limnaea* Poli, 1791, which would then fall as a junior objective synonym of *Unio* Philipsson, 1788. Finally, under this arrangement the name *Mysca* Turton, 1822, would remain in well-deserved obscurity, becoming a junior subjective synonym of *Unio* Philipsson.

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<sup>1</sup> This *Opinion* was published on 1st September 1956 (*Ops. Decls. int. Comm. zool. Nomencl.* 14 : 1—42).

8. As noted in the opening paragraph of the present application, Lamarck when introducing the generic name *Lymnaea*, used the erroneous spelling *Lymnoea*. This was, however, corrected to *Lymnaea* in the later part of Lamarck's paper. Accordingly, *Lymnoea* Lamarck is an Invalid Original Spelling and *Lymnaea* is a Valid Emendation. In this connection attention may be given to the following notes published by Kennard & Woodward in 1926 and by Winckworth in 1939 :—

(a) Kennard (A.S.) and Woodward (B.B.), 1926, *Synonymy of the British Non-Marine Mollusca* : 41 :—

“*Lymnoea* & *Lymnaea* : Lamarck, *Mém. Soc. His. Nat. Paris*, i, p. 75. The ‘oe’ was a typographical error and occurs in several other words in the early part of the paper. This was rectified in the latter portion of the paper and the concluding table.”

(b) Winckworth (R.), 1939, *Proc. Malac. Soc. Lond.* **23** : 315

“*Lymnaea* Lamarck : The original spelling of the generic name is *Lymnoea* with a digraph for *oe*, which is clearly a misprint for *ae*. The *y* has been altered by Agassiz and others, since the word is presumably derived from *λυμναίος* ; Lamarck, however, consistently used a *y* in both vernacular and Latin forms in 1799, in the repetition of the generic proposal in 1801 as *Lymnaea* and in the *Animaux sans Vertèbres*.”

9. The name *Lymnaea* Lamarck has suffered an exceptionally large number of variant spellings of which no less than thirteen were listed by Kennard & Woodward (1926, *loc. cit.* : 41, 42). These were as follows :—

- Limnaea* Blainville, 1823, *Dictionnaire des Sciences naturelles* **26** : 449  
*Limnaeus* Pfeiffer (C.), 1821, *Naturgeschichte Deutscher Land- und Süßwasser-Mollusken* **1** : 14, 84  
*Limnea* Fleming, 1828, *A History of British Animals* : 273  
*Limneus* Draparnaud, [1801], *Tabl. Moll. France* : 47  
*Limnoea* Gourdon, 1889, *Catalogue raisonné des Mollusques de la Pique et de ses Affluents* : 70  
*Limnoeus* Shuttleworth, 1872, *Enumeration des Plantes . . . ainsi que des Mollusques terrestres et de l'eau douce de l'île Corse* : 28  
*Lymnaeus* Cuvier (G.L.C.F.D.), 1817, *Règne Anim.* **2** : 412  
*Lymnea* Link, 1807, *Beschreibung der Naturalien-Sammlung der Universität zu Rostock* **3** : 138  
*Lymneus* Férussac, 1812, *Ann. Mus. Hist. nat.*, Paris **9** : 252  
*Lymnoea* Suter, 1913, *Man. N.Z. Mollusca* : 604  
*Lymnoeus* Michelin, 1831, *Mag. Zool.* **1** (Moll.) : 22  
*Lymnula* Rafinesque, 1819, *J. Phys. Chim. Hist. nat.* **88** : 423  
*Lymnus* Montfort, 1810, *Conchyliol. syst. Classif. méth. Coquilles* **2** : 262



10. Both the genus *Unio* Philipsson and the genus *Lymnaea* Lamarck are the type genera of universally recognised family-group taxa. The genus *Lymnaea* Lamarck was first made the type genus of a family-group taxon by Rafinesque, 1815 (*Analyse Nature* : 144), who regarded this taxon as being of family rank. He applied to it the defectively formed name LYMNIDIA. Nine years later Gray (J.E.) (*Ann. Phil.* 25 : 107) also erected a family-group taxon on the basis of this genus, calling this taxon by the defectively formed name LYMNAEADAE. The genus *Unio* Philipsson was first made the basis of a name for a family-group taxon by Fleming (J.) in 1828 (*Hist. Brit. Anim.* : 408, 415), who established the family UNIONIDAE. Finally, a family-group name MARGARITIFERIDAE based upon the name *Margaritifera* Schumacher, 1816, was established by Haas (F.) in 1940 (*Publ. Field Mus. (Zool. Ser.)* 24 : 119). This family is recognised by those workers who (as explained in paragraph 4 above) consider that its type genus (*Margaritifera* Schumacher) and *Unio* Philipsson, as now proposed to be defined under the Plenary Powers (i.e. with *Mya pictorum* Linnaeus as type species) are referable to different family-group taxa. I have pleasure in acknowledging the help very kindly given by Dr. L. R. Cox (*British Museum (Natural History)*) in tracing the place where the foregoing family-group names were first published.

11. In the light of the considerations set forth above, the International Commission on Zoological Nomenclature is now asked :—

- (1) to use its Plenary Powers (a) to set aside all selections of type species for the genus *Unio* Philipsson, 1788, made prior to the Ruling now asked for, and (b), having done so, to designate *Mya pictorum* 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) *Unio* Philipsson, 1788 (gender : masculine) (type species by designation under the Plenary Powers under (1)(b) above : *Mya pictorum* Linnaeus, 1758) ;
  - (b) *Margaritifera* (emend. of *Margartifera*) Schumacher, 1816 (gender : feminine) (type species, by monotypy : *Mya margaritifera* Linnaeus, 1758) ;
  - (c) *Lymnaea* Lamarck, 1799 (gender : feminine) (type species, by selection by Fleming (J.) (1818) : *Helix stagnalis* Linnaeus, 1758) ;
- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
  - (a) *pictorum* Linnaeus, 1758, as published in the combination *Mya pictorum* (specific name of type species of *Unio* Philipsson, 1788) ;

- (b) *margaritifera* Linnaeus, 1758, as published in the combination *Mya margaritifera* (specific name of type species of *Margaritifera* (emend. of *Margartifera*) Schumacher, 1816);
  - (c) *stagnalis* Linnaeus, 1758, as published in the combination *Helix stagnalis* (specific name of type species of *Lymnaea* Lamarck, 1799);
  - (d) *auricularius* Spengler, 1793, as published in the combination *Unio auricularius*;
  - (e) *tumidus* Philipsson, 1788, as published in the combination *Unio tumidus*;
- (4) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
- (a) *Limnaea* Poli, 1791 (a junior objective synonym of *Unio* Philipsson, 1788);
  - (b) *Lymnoea* Lamarck, 1799 (an Invalid Original Spelling for *Lymnaea* Lamarck, 1799);
  - (c) *Limnium* Oken, 1815 (a name published in a work rejected for nomenclatorial purposes; an Invalid Original Spelling for *Lymnium* Oken, 1815);
  - (d) *Lymnaea* Oken, 1815 (a name published in a work rejected for nomenclatorial purposes; an Invalid Original Spelling for *Lymnium* Oken, 1815);
  - (e) the thirteen Erroneous Subsequent Spellings for *Lymnaea* Lamarck, 1799, listed in paragraph 9 of the present application;
  - (f) *Lymnium* Oken, 1815 (a name published in a work rejected for nomenclatorial purposes);
  - (g) *Margaritana* Schumacher, 1817 (a junior objective synonym of *Margaritifera* (emend. of *Margartifera*) Schumacher, 1816);
  - (h) *Margartifera* Schumacher, 1816 (an Invalid Original Spelling for *Margaritifera* Schumacher, 1816);
- (5) to place the under-mentioned specific name on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—*fluviatilis* Schumacher, 1816, as published in the combination *Margartifera* [sic] *fluviatilis* (a junior objective synonym of *margaritifera* Linnaeus, 1758, as published in the combination *Mya margaritifera*);

(6) to place the under-mentioned family-group names on the *Official List of Family-Group Names in Zoology* :—

- (a) LYMNAEIDAE (correction of LYMNIDIA) Rafinesque, 1815 (type genus : *Lymnaea* Lamarck, 1799) ;
- (b) UNIONIDAE Fleming (J.), 1828 (type genus : *Unio* Philipsson, 1788) ;
- (c) MARGARITIFERIDAE Haas (F.), 1940 (type genus : *Margaritifera* Schumacher, 1816) (for use by those workers who consider on taxonomic grounds that the genera *Margaritifera* Schumacher, 1816, and *Unio* Philipsson, 1788 (type genus of UNIONIDAE Fleming, 1828) are referable to different family-group taxa) ;

(7) to place the under-mentioned family-group names on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—

- (a) LYMNIDIA Rafinesque, 1815 (type genus : *Lymnaea* Lamarck, 1799) (an Invalid Original Spelling for LYMNAEIDAE) ;
- (b) LYMNAEADAE Gray (J.E.), 1824 (type genus : *Lymnaea* Lamarck, 1799) (an Invalid Original Spelling for LYMNAEIDAE).

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt in 1950 of Mr. Ellis' preliminary communication the question of the preservation of the generic name *Unio* Philipsson, 1788 (Class Pelecypoda), for use in its accustomed sense was allotted the Registered Number Z.N.(S.) 451.

**3. Publication of the present application :** The present application was sent to the printer on 30th November 1955 and was published on 9th May 1956 in Part II of Volume 11 of the *Bulletin of Zoological Nomenclature* (Ellis, 1956, *Bull. zool. Nomencl.* **11** : 337—343).

**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 9th May 1956 (a) in Part 11 of Volume 11 of the *Bulletin of Zoological Nomenclature* (the Part in which Mr. Ellis' application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general zoological serial publications and to two specialist serials.

**5. Support Received :** Support for the present application was received from seven specialists (United States, three (3) ; Denmark, one (1) ; Germany, one (1) ; The Netherlands, one (1) ; United Kingdom, one (1)). In the case of five of the specialists concerned the support so given was unqualified. As regards the other two, one would have preferred that the generic name *Margaritana* Schumacher, 1817, should be retained by the suppression under the Plenary Powers of its senior objective synonym *Margaritifera* Schumacher, 1816, while the other, though not advocating the validation of the generic name *Margaritana*, expressed a preference for the retention of the family group-name MARGARITANINAE Ortman, 1910 (i.e. the name based upon the invalid generic name *Margaritana* Schumacher, 1817) instead of upon the name MARGARITIFERIDAE Haas, 1940, the name based upon the valid name (*Margaritifera* Schumacher, 1816) for the type genus.

**6. Support received from H. Lemche (Universitetets Zoologiske Museum, Copenhagen, Denmark) :** On 24th May 1956 Dr. H. Lemche (*Universitetets Zoologiske Museum, Copenhagen, Denmark*) addressed the following note of support to the Office of the Commission (Lemche, 1956, *Bull. zool. Nomencl.* **12** : 59) :

Concerning the names *Lymnaea* and *Unio*, I would like to give my strongest support to the proposal presented by Mr. Ellis.

**7. Support received from Joshua L. Baily, Jr. (San Diego California, U.S.A.) :** On 30th May 1956 Dr. Joshua L. Baily, Jr.

(*San Diego, California, U.S.A.*) addressed the following letter to the Office of the Commission in support of the present case :—

Mr. A. E. Ellis has requested action by you looking toward the validation of certain generic names of freshwater mollusca and the family-group names to be derived from them. These names are as follows :—*Unio* Philipsson, 1788 ; *Lymnaea* Lamarck, 1799 ; *Margaritifera* Schumacher, 1816. I am in complete agreement with Mr. Ellis as far as the first two of these names are concerned, and I wish to give his application the strongest possible support, but it seems to me that the case of the name *Margaritifera* is fraught with certain objections of a technical nature that make it desirable to withdraw this name from the application and give it separate consideration with a different number.

The name given to this genus by Schumacher (*Overs. K. Vidensk. Selsk. Forh.* 7 : 7) was spelled *Margartifera*. That this was a printer's error is almost certainly indicated by the fact that the type of the genus (according to Mr. Ellis) is *Margaritifera fluviatilis* Schumacher, 1816 = *Mya margaritifera* Linnaeus, 1758. In those days it was an accepted practice when establishing a new monotypic genus to replace the old specific name by a new one, and then use the old specific name for the new genus. Apparently this was Schumacher's intention. But there is other extrinsic evidence to support the belief that the new genus was intended to be called *Margaritifera*. In the following year Schumacher renamed it *Margaritana*. It is difficult to understand why he did this unless he believed the original name to be preoccupied. The spelling *Margartifera* had not been used before, but the spelling *Margaritifera* had, and these earlier usages must now be considered.

The first of these was by J. Woodward as early as 1728. I do not know where this name was published first, but it is used by Dall (1898, *Trans. Wagner Free Inst. Sci.* 3(4) : 668). The second use was by P. Browne 1756 (*Civil and Natural History of Jamaica* : 412) which was pre-Linnaean and has no standing. The third was by the same author in a later edition of the same work published in 1789 (: 412) but this work is not consistently binomial and also has no standing. The fourth use was by G. Humphrey in 1797 (*Museum Calonnianum*) but this work was published anonymously and was rejected by your predecessors in their *Opinion* 51. The fifth use was in 1811 by Megerle von Muhlfeldt (*Ges. Naturf. Fr. Berlin Jahr.* 5 : 66) but this author used a slightly modified orthography, *Margaritiphora* which is the same Greek name rendered into Latin by a different method of transliteration. As the result of this difference in spelling Megerle's name does not prejudice that given a few years later by Schumacher ; the two are not orthographic homonyms but they are etymological and phonetic homonyms.

These early uses all apply to the marine genus to which Röding (*Museum Boltenianum*) gave the name *Pinctada* in 1798, by which it is generally and correctly known. Nevertheless, the name *Margaritifera* has been used spasmodically by several subsequent writers for *Pinctada*, among them the Adams Brothers (1857, *Gen. Rec. Moll.* 2 : 525), Harris (1897, *Cat. Tert. Moll. Brit. Mus.* (1) : 325), Jameson, (1901, *Proc. zool. Soc. Lond.* 1 : 372) and the author of an anonymous brochure without date, published anonymously before 1938, and financed ostensibly by Michimoto, the Japanese manufacturer of artificially cultured pearls, though presumably not written by him.

Illegal uses such as these have, of course, no bearing on the availability of the name for the genus to which Schumacher applied it, but whether legal or not, the use of the same name in two different senses is always confusing, especially to beginners. Some authorities maintain that nomenclature was not made for amateurs and so tend to belittle the amateur, all unmindful of the fact that the greatest scholars were all beginners once. Schumacher seems to have sensed this, and his attempt to substitute the name *Margaritana* in 1817 for the earlier *Margaritifera*, 1816, seems to have been due to a feeling that the first name was objectionable. It must be remembered that Schumacher lived before the International Commission on Zoological Nomenclature and the rules which it has laid down for our guidance and from which the unavailability of the names given by Woodward, Browne and Humphrey derives, had not come into existence. Further, all subsequent writers seem to have been of the same mind, for no one, so far as I know, has ever called this genus anything but *Margaritana* Schumacher, 1817 (*Essai nouv. Syst. Hab. Vers Test.* 41 : 123) until 1925 when Kennard, Salisbury, and Woodward (*Proc. Malac. Soc. London* 16 : 276) sought to reject *Margaritana* and to restore *Margaritifera*.

There is yet another reason why I should prefer the name *Margaritana* to *Margaritifera*. In 1911 Ortmann (*Nautilus* 25 : 6) found this genus to differ so widely from the type of the UNIONIDAE that he segregated it in separate family which he called MARGARITANIDAE. In 1912 Hannibal (*Proc. Malac. Soc. London* 10 : 118) accepted this name. In 1914 Simpson (*Descr. Cat. Naiad.* : 512) republished the name but rejected it on taxonomic rather than on nomenclatorial grounds ; he seems to imply without actually saying so that if the genus did differ sufficiently to merit a separate family the name of that family should be MARGARITANIDAE. Finally, in 1918, Walker (*Spec. Publ. Univ. Mich. Mus. Zool.* 6 : 39, 165) accepted this family name and as he was considered during his lifetime to be the world's authority on this group his influence has been rather great, and no one thought of calling the family MARGARITIFERIDAE until Haas (*Publ. Field. Mus. (Zool. Ser.* 24 : 119) did so in 1940.

When Kennard, Salisbury and Woodward (*loc. cit.*) rejected the name *Margaritana* they did not at the same time reject the family name MARGARITANIDAE. There is nothing under the Rules now in effect to prevent the co-existence of the genus *Margaritifera* and the family MARGARITANIDAE. But I think everyone would find such a situation highly unsatisfactory, and one that can be rectified only by suspension of the Rules. Either a generic or a familial name must be suppressed. Mr. Ellis has asked for the placement of the family name MARGARITIFERIDAE on the *Official List*, but I doubt if this can be done without at the same time suppressing the older name MARGARITANIDAE, which Mr. Ellis has not asked for. To attempt to resolve this impasse without suspension of the Rules would give us a legal family name based upon an illegal generic name.

The late Junius Henderson (1928, *Nautilus* **41** : 91) seems to have shared my preference for *Margaritana*, for he wrote "This seems to be an instance justifying the committee on zoological nomenclature in exercising its discretionary power by validating the name *Margaritana*." And Dr. Henning Lemche (1956, *Bull. zool. Nomencl.* **12** : 59) has urged strongly the validation of *Lymnaea* and *Unio*, but says nothing in support of *Margaritifera*.

In view of the foregoing I therefore request that you suspend the Rules to suppress the names *Margaritifera* and *Margaritifera* Schumacher, 1816, validate *Margaritana* Schumacher, 1817, with its type species *Margaritifera fluviatilis* Schumacher, 1816, = *Mya margaritifera* Linnaeus, 1758, and the family name MARGARITANIDAE Ortmann, 1911, and place all names so validated on the appropriate *Official Lists*.

To summarise my argument briefly :

- (a) The name *Margaritana* is universally understood and was used for over a century by everyone.
- (b) The name *Margaritifera* has been used for nearly two centuries (albeit illegally) for an entirely different genus.
- (c) The name of the family for the genus hereinunder consideration is MARGARITANIDAE.

**8. Support received from C. O. van Regteren Altena (Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands) :** On 16th July 1956 Dr. C. O. van Regteren Altena (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*) addressed the

following letter of support to the Office of the Commission (van Regteren Altena, 1956, *Bull. zool. Nomencl.* **12** : 180) :—

Mr. A. E. Ellis sent me a reprint of his paper in the *Bulletin*, in which he asks the International Commission on Zoological Nomenclature to validate the currently accepted usage of the generic name *Unio* Philipsson, 1788. I think that the propositions made under para. 11 of this paper are all very sound, and will avoid confusion in the use of some often used generic names of Mollusca.

**9. Support received from H. B. Baker (University of Pennsylvania, Philadelphia, U.S.A.) :** On 25th July 1956 Dr. H. B. Baker (*University of Pennsylvania, Philadelphia, U.S.A.*) addressed the following letter of support to the Office of the Commission (Baker, 1956, *Bull. zool. Nomencl.* **12** : 220) :—

The proposal by Ellis to validate *Unio* and *Lymnaea* would be excellent. LYMNIDAE Rafinesque would be simpler, but LYMNAEIDAE better known. *Margaritana* has been used more than *Margaritifera*, but either would be acceptable.

**10. Support received from H. Watson (Cambridge, England) :** On 3rd September 1956 Mr. Hugh Watson (*Cambridge, England*) addressed the following letter to the Office of the Commission in support of the present case (Watson, 1956, *Bull. zool. Nomencl.* **12** : 308) :—

I strongly support the application of Mr. A. E. Ellis asking the International Commission to use its Plenary Powers to validate the currently accepted usage of the well-known generic name *Unio* Philipsson, 1788, with *Mya pictorum* Linnaeus as the type species, instead of transferring the name *Unio* to the distinct genus containing *Mya margaritifera* Linnaeus, and employing the name *Limnaea* Poli, 1791, for that containing *Mya pictorum*, as the strict application of the ordinary Rules would seem to require. It is obvious that thus to transfer the name *Unio* to a different genus from that to which it has been applied for more than a century and to use in its place a name so closely resembling the well-known generic name *Lymnaea* Lamarck, 1799, widely used for a common genus of fresh-water Gastropods, would cause the utmost confusion and should be prevented. But the action required for this purpose is merely for the Commission to set aside all type selections of the genus *Unio* Philipsson prior to Gray's selection of *Mya pictorum* Linnaeus made in 1847 and widely followed



ever since thus making this selection definitely valid. For the Commission to reject this and all other type selections hitherto made, and then to select anew the same species itself, as suggested, might give the false impression that the selection was taken on the initiative of the Commission itself, whereas in fact it was first put forward by Gray.

**11. Support received from D. F. McMichael (The Australian Museum, Sydney, Australia):** In September 1956 Dr. D. F. McMichael (*The Australian Museum, Sydney, Australia*) furnished the Commission with a statement concerning the present case, which he supplemented in a note written in December of that year. The text of both of these statements is reproduced below:—

**(a) Statement dated 5th September 1956**

While I am fully in agreement with the proposals to use the Plenary Powers of the International Commission for the validation of the generic names *Unio* Philipsson, *Lymnaea* Lamarck and *Margaritifera* Schumacher and their respective type species according to currently accepted usage, and while I also agree that the family names UNIONIDAE Fleming and LYMNAEIDAE Rafinesque should be confirmed, I cannot agree that the family name MARGARITIFERIDAE Haas, 1940, should be added to the *Official List of Family-Group Names in Zoology*.

The reasons are as follows:

For many years the generic name *Margaritana* Schumacher, 1817, was used for the taxon now known as *Margaritifera* Schumacher, 1816. The earlier *Margaritifera* was brought to light by Kennard, Salisbury and Woodward (1925) and *Margaritana* was shown to be a junior objective synonym. The former name is now used almost exclusively for the taxon.

The first person to separate the genus *Margaritifera* from other genera of the family UNIONIDAE was Ortmann (1910) who recognised that the taxon was worthy of sub-family rank. Later Ortmann (1911) raised the group to full family rank, but since the generic name then in use was *Margaritana*, he wrote MARGARITANINAE (1910) and MARGARITANIDAE (1911). This usage persisted for many years and apparently it was not until 1940 that a correction of the family name to MARGARITIFERIDAE was made, in conformity with Article 5 of the International Rules then in operation.

Haas (1940) gives no indication that he was claiming to have done anything new in writing MARGARITIFERIDAE, and we must assume that he was simply emending Ortmann's name in conformity with Article 5.

Unfortunately, neither the old Rules, nor the new Copenhagen Decisions state clearly who is to be regarded as the author of a name which was emended under the old Article 5. I believe that a just interpretation would regard such emendations as analogous to the Valid Emendations of generic and specific names, when such names were wrongly constructed or based on mis-spellings. In such cases the original author is still regarded as the legitimate author of the name. If the emendation of family names is to be treated in a similar way, then the family name in question should be written MARGARITIFERIDAE Ortmann, 1910.

Another point which should be considered is that under the Copenhagen Decisions (p. 36, para. 54(1)(a)) the name MARGARITANIDAE would not have to change. Sabrosky (1954) has pointed out that if this decision is to be retroactive, much confusion would result. Follet (1956) has proposed modifications to the Copenhagen Decisions aimed at clarification of this point. Until the matter is decided, however, it seems possible that we shall have to revert to the use of the name MARGARITANIDAE, which has priority.

Both these problems should be considered by the International Commission before MARGARITIFERIDAE Haas, 1940, is added to the *Official List of Family-Group Names in Zoology*, in order that justice may be done to Ortmann and also to ensure that a name which conflicts with the Copenhagen Decisions is not added to the *Official List*.

#### References

- Follett (W.I.), 1956, *Syst. Zool.* **5** : 33  
 Haas (F.), 1940, *Publ. Field Mus. (Chicago) (Zool. Ser.)* **24** : 119  
 Kennard, Salisbury & Woodward, 1925, *P. Malac. Soc. Lond.* **16** : 276—277  
 Ortmann (A.E.), 1910, *Nautilus* **23** : 116  
 Ortmann (A.E.), 1911, *Nautilus* **24** : 129  
 Sabrosky (C.W.), 1954, *J. Palaeont.* **28** : 489—490

#### (b) Statement dated 31st December 1956

I agree that MARGARITANIDAE should be suppressed in favour of MARGARITIFERIDAE. In fact, I think that the Copenhagen Decision, p. 36, para. 54(1)(a) is in general unwise. The Decision seems to invite confusion, and it would have been much simpler to allow the family names to change as was necessary under the old Article 5.

I can imagine that in the years to come, a great deal of confusion will result from retaining family names based on junior objective synonyms. However, this rule needs further consideration.

With regard to my comment that "a name which conflicts with the Copenhagen Decisions is not added to the *Official List*" I fully understand that if the Commission, by use of its Plenary Powers suppresses MARGARITANIDAE, then there can be no conflict with the Copenhagen Decisions. However, in Mr. Ellis's proposal, there was no mention of the existence of the name MARGARITANIDAE, and presumably if it were not suppressed by action of the Commission, someone would later attempt to resurrect it as valid under *Copenhagen Decisions on Zoological Nomenclature*, para. 54(1)(a).

**12. Support received from H. Modell (Weiler im Allgäu, Germany):** On 31st October 1956 Dr. H. Modell (*Weiler im Allgäu, Germany*) addressed the following letter to the Office of the Commission in support of the present case :—

I agree completely with the arguments of Mr. Ellis to conserve the name *Unio*. I have used this name myself for years.

**13. Report by the Secretary on two problems involved in the present case :** On 18th November 1956 the Secretary prepared for the consideration of the International Commission the following Report on two problems involved in the present case which had been brought to notice in one case by Professor Ernst Mayr and in the other case by Dr. L. B. Holthuis subsequent to the publication of Mr. Ellis's application in the *Bulletin of Zoological Nomenclature* in May 1956 :—

**Problems arising in connection with the spelling of two generic names dealt with in Mr. A. E. Ellis's application relating to the generic name "Unio" Philipsson, 1788**

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

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

Since the publication of the application relating to the generic name *Unio* Philipsson, 1788, submitted by Mr. A. E. Ellis (1956, *Bull. zool. Nomencl.* **11** : 337—343) two points have been raised in regard to one

of the names dealt with in that case, to which it is desirable that the attention of the Commission should now be drawn. The questions so raised are set out below.

(a) **The spellings "Lymnaea" and "Lymnoea" for the generic name published by Lamarck in 1799**

2. Mr. Ellis pointed out in his application that the generic name now always known as *Lymnaea* Lamarck, 1799, was originally published not only with the spelling "ae" in the penultimate syllable but also with the spelling "oe" in that syllable and after quoting the observations on this subject published by Kennard & Woodward (1926) and Winckworth (1939), accepted the "ae" spelling as a Valid Emendation, treating the "oe" spelling as an Invalid Original Spelling. Professor Ernst Mayr has since pointed out (*in litt.*, 26th May 1956) that in the terminology adopted by the Copenhagen Congress in 1953 both the foregoing spellings are "Original Spellings" and that the determination of which should be accepted as the "Valid Original Spelling" is a matter which requires to be made under the provisions of Decision 71(1)(a)(ii) of the above Congress (1953, *Copenhagen Decisions zool. Nomencl.* : 43—44). That decision, it will be recalled, provides that, where a name was first published with more than one spelling the spelling to be accepted as the "Valid Original Spelling" is to be determined in accordance with the "First Reviser" Principle, except in cases where there is clear evidence that one of the spellings or, where there were more than two spellings, all save one of those spellings was "the result of an inadvertent error".

3. Professor Mayr's comment is well taken and I have therefore re-examined Lamarck's original paper from the foregoing point of view. This examination fully confirms the conclusions as to the careless way in which this paper was printed, reached by the authors cited in the preceding paragraph. First, it must be noted that the particular name in question appears only twice in Lamarck's paper: (a) on page 75, where it appears as "*Lymnoea*", and (b) in the "Table" which bears no page number (which in the British Museum's copy is bound between pages 70 and 71), where the "ae" spelling is employed, the name appearing as "*Lymnaea*". Second, there is no consistency in this paper in regard either to the spelling or printing of names of this type. Thus, it may be noted (i) that in the text the penultimate syllable both of the name *Calyptraea* and of the name *Hyalaea* consists of the letters "ae", each letter printed separately, whereas in the Table the corresponding syllable of these names appears as "oe" and is printed with a digraph, (ii) the second syllable of the name *Gioenia* is spelled as "oe" both in the text and in the Table, a digraph being employed in each case, and (iii) the penultimate syllable of the name *Cypraea* is spelled on both occasions as "ae", a digraph not being employed

in either case. In my view, the evidence summarised above is amply sufficient to justify the conclusion that the "oe" spelling in *Lymnoea* is a misprint due to "an inadvertent error" and therefore that the spelling *Lymnaea* (with an "ae") is the Valid Original Spelling for this name. Unfortunately, the Copenhagen Congress gave no definition of the criteria to be followed in determining what constitutes "clear evidence" that a given spelling was due to "an inadvertent error" and there is therefore room for differences of opinion on this subject in cases such as the present. I have therefore looked for the next occasion on which this name appeared in the literature in order to determine what view the "First Reviser" took as to the spelling to be used for this name. I find that the first such occasion was two years later when in 1801 (*Syst. Anim. sans Vertèbr.* : 91) Lamarck was his own First Reviser, using for this name the "ae" spelling. The spelling *Lymnaea* is therefore beyond question the correct spelling for this generic name.

**(b) The relationship of the names "Limnaea" Poli, 1791,  
and "Lymnaea" Lamarck, 1799, to one another  
under the Law of Homonymy**

4. The question of the relationship to one another of the generic names *Limnaea* Poli, 1791, and *Lymnaea* Lamarck, 1799, under the Law of Homonymy has been raised by Dr. L. B. Holthuis (*in litt.*, 15th May 1956) as a matter requiring clarification. The history of this matter is as follows :—

- (i) Up to the meeting of the Commission held at Lisbon in 1935 there was no guidance in the *Règles* on the question whether two generic names which were identical in spelling, except for the use in one of the letter "i" and in the other of the letter "y", should be regarded as homonyms of one another, though as far back as 1910 the Eighth International Congress of Zoology at Graz had inserted in Article 35 a provision under which any two specific names differing in spelling from one another only to the foregoing extent were to be regarded as homonyms of each other.
- (ii) At Lisbon the Commission adopted a decision which was later embodied in *Opinion 147* (1943, *Ops. Decls. int. Comm. zool. Nomencl.* 2 : 123—132) under which the provisions approved by the Graz Congress in relation to specific names (see (i) above) were applied also to generic names.
- (iii) At Paris in 1948 the Thirteenth International Congress of Zoology incorporated into the *Règles* the Ruling given in *Opinion 147*, subject to the restriction that that Ruling was to apply only to names consisting of words based on modern patronymics or on geographical features (see 1950, *Bull. zool. Nomencl.* 4 : 161—162).

- (iv) At Copenhagen in 1953 the question of what should constitute homonymy at the generic-name level was further considered and it was decided to substitute for the Rule adopted by the Paris Congress the Rule commonly known as the "One-Letter Rule" under which a difference in spelling of a single letter was to be accepted as sufficient to prevent any two generic names from being treated as homonyms of one another (see 1953, *Copenhagen Decisions zool. Nomencl.* : 78, Decision 152).

5. It will be seen from the foregoing particulars (a) that up to 1935 there was no guidance available on the question whether two such generic names as *Limnaea* and *Lymnaea* should be treated as homonyms of one another, (b) that under a decision taken at Lisbon (later embodied in *Opinion 147*) the names *Limnaea* and *Lymnaea* became homonyms of one another but (c) that in 1948, as the result of a decision by the Paris Congress, these names ceased to be homonyms, the position in this respect being unchanged by the further revision of Article 34 carried by the Copenhagen Congress in 1953. Thus in his application regarding the name *Unio* Philipsson, Mr. Ellis was perfectly correct when he treated the name *Lymnaea* Lamarck, 1799, as an available name and not as a junior homonym of *Limnaea* Poli, 1791.

#### (c) Recommendation

6. For the reasons explained in paragraphs 4 and 5 above no modification is called for in the recommendations submitted by Mr. Ellis on the question of the relationship to one another of the names *Limnaea* Poli, 1791, and *Lymnaea* Lamarck, 1799. On the other question discussed in the present note it is clear also that Mr. Ellis was correct in accepting the spelling *Lymnaea* Lamarck, 1799, in preference to the spelling *Lymnoea* used in the same paper of Lamarck's. It should be noted however that under the Copenhagen Rules the spelling *Lymnaea* Lamarck should be described not as an emendation of *Lymnoea* but as the "Valid Original Spelling" for this name through the action of Lamarck himself as First Reviser in 1801. It is recommended that in the decision to be taken in this case the terminology to be employed in this matter shall be that adopted by the Copenhagen Congress.

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

**14. Issue of Voting Paper V.P.(56)44 :** On 30th November 1956 a Voting Paper (V.P.(56)44) was issued in which the Members

of the Commission were invited to vote either for, or against, " the proposal relating to the generic name *Unio* Philipsson, 1788, and associated names as set out in Points (1) to (7) in paragraph 11 on pages 341 to 343 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 *Opinion*] subject to the recommendations on a question of terminology submitted in paragraph 6 of the explanatory note annexed to the present Voting Paper " [i.e. in the paragraph numbered as above in the Report reproduced in paragraph 13 of the present *Opinion*].

**15. The Prescribed Voting Period for Voting Paper V.P.(56)44 :**

As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 2nd March 1957.

**16. Reservation of the question of the relative status to be accorded to the generic name "Margaritifera" Schumacher, 1816, and "Margaritana" Schumacher, 1817 :**

In returning his completed copy of Voting Paper V.P.(56)44, Professor Tadeusz Jaczewski (*Warsaw*) suggested that further consideration should be given to the question whether, instead of placing the generic names *Margaritifera* Schumacher, 1816, on the *Official List* of valid generic names and its junior objective synonym *Margaritana* Schumacher, 1817, on the *Official Index* of invalid generic names respectively, it might be better to use the Plenary Powers to suppress the first of these names and thus to validate the second. At the close of the Prescribed Voting Period this suggestion was considered by Mr. Hemming as Secretary, who took the view that the best course would be to reserve the foregoing question for further consideration by the Commission by its exclusion from the scope of the foregoing Voting Paper on the proposals submitted by Mr. Ellis in regard to the above names and consequently also in regard to the family-group names based on those generic names. Accordingly, on 2nd March 1957 Mr. Hemming executed a Minute giving directions in this sense.

**17. Particulars of the Voting on Voting Paper V.P.(56)44 :**

At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(56)44, exclusive of the portion relating to

the names provisionally reserved for further consideration as specified in the Minute executed by the Secretary on 2nd March 1957 (paragraph 16 above)<sup>2</sup>, 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) :*

Boschma ; Vokes ; Hering ; Mayr ; Lemche ; Holthuis ; Prantl ; Bonnet ; Mertens ; Bradley (J.C.) ; Bodenheimer ; Dymond ; Kühnelt ; Riley ; Key ; Esaki ; Stoll ; do Amaral<sup>3</sup> ; Cabrera ; Sylvester-Bradley ; Tortonese ; Hemming ; Jaczewski ; Miller ;

- (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.

**18. Declaration of Result of Vote on Voting Paper V.P.(56)44 :** On 3rd March 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(56)44, signed a Certificate that the Votes cast were as set out in paragraph 17 above and declaring that the proposal submitted in the foregoing Voting Paper had been duly

<sup>2</sup> See also in this connection paragraph 5 of the Report submitted to the Commission by the Secretary on 10th July 1957 reproduced in paragraph 19 of the present *Opinion* (: 316).

<sup>3</sup> Subject to a reservation on the question of the relative merits of the spellings *Lymnaea* and *Lymnoea*.



adopted and that the decision so taken was the decision of the International Commission in the matter aforesaid.

**19. Submission to the Commission in July 1957 of proposals in regard to the status to be accorded to the generic names "Margaritifera" Schumacher, 1816, and "Margaritana" Schumacher, 1817, and the family-group names based thereon :** On 10th July 1957 the Secretary prepared for the consideration of the Commission the following Report on the question of the status to be accorded to those of the names involved in Mr. Ellis's application which by the Minute executed by the Secretary on 2nd March 1957 had (paragraph 16 above) been reserved for further examination, i.e. the generic names *Margaritifera* Schumacher, 1816, and *Margaritana* Schumacher, 1817, and the family-group names based on those generic names :—

**Two outstanding points on the application relating to the generic name "Unio" Philipsson, 1788 (Class Pelecypoda)**

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

(Secretary to the International Commission on Zoological Nomenclature)

I regret that it is necessary to re-submit to the Commission the application relating to the generic name *Unio* Philipsson, 1788 (Class Pelecypoda), the major issues on which were settled by the Commission by its vote on Voting Paper V.P.(56)44. The points requiring further consideration are set out below.

2. The application relating to the above generic name was submitted by Mr. A. E. Ellis and was published in May 1956 (*Bull. zool. Nomencl.* **11** : 337—343). The principal issue involved was a request that the Commission should use its Plenary Powers for the purpose of designating for the genus *Unio* Philipsson a type species in harmony with accustomed usage.

3. A number of other names were involved in this case and in compliance with the "Completeness-of-Opinions" Rule Mr. Ellis included in his application proposals in regard to these names. Among the names concerned was the generic name *Margaritifera* (emend. of *Margartifera*) Schumacher, 1816, which, being the oldest available name for the taxon concerned, was recommended by Mr. Ellis for addition to the *Official List of Generic Names in Zoology*. At the

same time Mr. Ellis recommended the addition to the *Official List of Family-Group-Names in Zoology* of the family-group name MARGARITIFERIDAE Haas (F.), 1940, based upon the name of the foregoing genus. Mr. Ellis explained also that there was a later version of the above generic name—*Margaritana* Schumacher, 1817, which, as a junior objective synonym of *Margaritifera* Schumacher, 1816, he recommended for addition to the *Official Index of Rejected and Invalid Generic Names in Zoology*. (In making this recommendation, Mr. Ellis observed (paragraph 4 of his application) that both the foregoing forms of the generic name in question had been used by various authors since the separation about forty years ago of the taxon concerned from that represented by the nominal genus *Unio* Philipsson. It was for this reason that he recommended that the normal rules should be applied in this case, the valid name (*Margaritifera*) being placed on the *Official List* and the objectively invalid name (*Margaritana*) on the *Official Index*.)

4. The proposals submitted by Mr. Ellis were supported in their entirety by six specialists: (1) Henning Lemche (*Copenhagen*); (2) G. O. Regteren Altena (*Leiden, The Netherlands*); (3) Horace B. Baker (*University of Pennsylvania*); (4) Hugh Watson (*Cambridge, England*); (5) D. F. McMichael (*Australia Museum, Sydney*); (6) Hans Modell (*Weiler in Allgäu, Germany*). A seventh specialist, Joshua L. Baily, Jr. (*San Diego, California*) also supported Mr. Ellis's proposals with the exception of those relating to the names *Margaritifera* and *Margaritana*. Dr. Baily based his preference for the validation of *Margaritana* by the suppression of *Margaritifera* on the ground: (1) that the name *Margaritifera* was an adjective and not a noun, and had moreover been published in a defective spelling (*Margartifera*); (2) that, prior to having been validly published as a generic name by Schumacher, it had appeared in certain publications which were not available for nomenclatorial purposes; (3) that the name *Margaritifera* was related linguistically to the word "Margaritiphora" which had been used as a generic name by Megerle in 1811. Dr. Baily added a comment on the family-group-name aspect involved, to which reference is made in paragraph 8 below.

5. Mr. Ellis's application was submitted to the Commission for Vote with Voting Paper V.P.(56)44 in March of this year, together with a note on certain aspects of that case which do not call for further consideration at this point. What does have to be noted is that in that vote the Commission unanimously approved the portion of Mr. Ellis's proposals which were concerned with the generic names *Margaritifera* and *Margaritana* and the family-group name MARGARITIFERIDAE, save that, in returning his affirmative vote on this case Professor Jaczewski raised the question whether, as an alternative, it would be better for the Commission to use its Plenary Powers to suppress the name *Margaritifera* for the purpose of validating its junior objective synonym *Margaritana*.

6. The foregoing question has been re-examined in the light of Professor Jaczewski's suggestion. The results of this examination may be summarised as follows :—

- (a) Mr. A. E. Ellis (the applicant in the present case), on being consulted reported as follows :—

. . . The name *Margaritifera* has certainly been used by British authors for the last thirty years, following the publication of Kennard & Woodward's "Synonymy" in 1926, and is unquestionably the oldest name. The only argument in favour of *Margaritana* is that of euphony.

- (b) The following comment previously furnished by Dr. D. F. McMichael (*Australian Museum, Sydney*) bears on the question of usage :—

For many years the generic name *Margaritana* Schumacher, 1817, was used for the taxon now known as *Margaritifera* Schumacher, 1816. The earlier name *Margaritifera* was brought to light by Kennard, Salisbury and Woodward (1925) and *Margaritana* was shown to be a junior objective synonym. The former name is now used almost exclusively for the taxon.

- (c) Of the seven specialists who commented on Mr. Ellis's application six supported the proposed addition of *Margaritifera* Schumacher to the *Official List* and the rejection of the junior synonym *Margaritana* Schumacher, and one only advocated the opposite course.

7. From the evidence summarised above, it seems clear that, while there would have been a good case for asking the Commission to validate the name *Margaritana* Schumacher, 1817, when over thirty years ago the older (and valid) name *Margaritifera* Schumacher, 1816, was unearthed by Kennard, Salisbury and Woodward, the time when such action would have been of value has since long passed, the valid name *Margaritifera* Schumacher, having firmly established itself in current usage. Moreover, the comments on Mr. Ellis's application received from specialists suggest that an attempt to set back the clock by using the Plenary Powers to revivify the invalid and now virtually moribund junior synonym *Margaritana* would be unlikely to secure any appreciable support. It is recommended therefore that the Commission should now confirm the decision taken on Voting Paper V.P.(56)44 in favour of the valid name *Margaritifera* Schumacher, 1816 and against its junior objective synonym *Margaritana* Schumacher, 1817.

8. There remains one further aspect of the present case which calls for consideration, namely the question of the name to be used for the nominal family-group taxon containing the genus *Margaritifera*

Schumacher, 1816. The proposal submitted by Mr. Ellis on this point was, it will be recalled (paragraph 3 above) that the name MARGARITIFERIDAE Haas, 1940, should be accepted and placed on the *Official List*. Unfortunately, it was not realised at the time that there was in existence an older family-group name published at the subfamily-group-name level based upon the invalid generic name *Margaritana* Schumacher, 1817. This is the name MARGARITANINAE Ortmann, 1910. In every similar case that has so far come to light the Commission has used its Plenary Powers to suppress the older family-group name based upon an invalid name for the type genus in order to validate the later family-group name based upon the valid name for the type genus. The use of the Plenary Powers for this purpose is necessary in view of the terms of the much criticised Decision 54(1)(a) taken by the Copenhagen Congress on this subject. The Public Notice given in respect of Mr. Ellis's application puts the Commission in a position to take action on the foregoing sense in the present case and it is recommended that it should do so. None of the specialists who have commented on this application have supported the adoption of the name MARGARITANINAE with the exception of Dr. Baily who did so because he advocated the validation of the generic name *Margaritana* Schumacher, 1817.

9. For the reasons set out above it is recommended that the International Commission should :—

- (1) reaffirm the decision taken by it by the vote on Voting Paper V.P.(56)44 that the invalid generic name *Margaritana* Schumacher, 1817, should be definitely rejected and placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*, its valid senior objective synonym *Margaritifera* Schumacher, 1816, being at the same time accepted and placed on the *Official List of Generic Names in Zoology* (paragraph 7 above) ;
- (2) approve under the Plenary Powers (a) the adoption of the family group name MARGARITIFERIDAE Haas, 1940, a name based on the valid generic name *Margaritifera* Schumacher, 1816, and (b) the rejection of the name MARGARITANINAE Ortmann, 1910, based on the invalid generic name *Margaritana* Schumacher, 1817, thereby giving valid force to the decision on this point taken by the vote on the Voting Paper referred to above (paragraph 8 above).

**20. Issue of Voting Paper V.P.(O.M.)(57)12 :** On 16th July 1957 a Voting Paper (V.P.(O.M.)(57)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 *Margaritifera* Schumacher, 1816, and *Margaritana* Schumacher,

1817, and the family-group-name problem involved in connection therewith (Class Pelecypoda), as set out in Points (1) and (2) in paragraph 9 of the paper bearing the Registered Number Z.N.(S.) 451 submitted by the Secretary simultaneously with the present Voting Paper ” [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 19 of the present *Opinion*].

**21. The Prescribed Voting Period for Voting Paper V.P.(O.M.) (57)12 :** As the foregoing Voting Paper was issued under the One-Month Rule, the Prescribed Voting Period closed on 16th August 1957.

**22. Particulars of the Voting on Voting Paper V.P.(O.M.)(57)12 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(O.M.)(57)12 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) :*

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

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

Mayr ;

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

Riley ;

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

Miller.

**23. Declaration of Result of Vote on Voting Paper V.P.(O.M.) (57)12 :** On 17th August 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the

Vote taken on Voting Paper V.P.(O.M.)(57)12, 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. Withdrawal of proposals relating to two specific names :** Following the routine checking of the documents relating to the present case, Mr. Hemming on 20th August 1957 executed a Minute (1) taking note that the names *stagnalis* Linnaeus, 1758, as published in the combination *Helix stagnalis*, and *tumidus* Philipsson, 1788, as published in the combination *Unio tumidus*, proposed for addition to the *Official List* in the present application had already been placed on that *List* by the Ruling given in *Opinion* 336, and (2) directing that the above proposals be therefore treated as having been withdrawn. At the same time Mr. Hemming gave directions that the entry made in the above *Opinion* in respect of the first of the above names be endorsed “ (specific name of type species *Lymnaea* Lamarck, 1799) ”.

**25. Preparation of the Ruling given in the present “ Opinion ” :** On 21st August 1957 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.(56)44, as supplemented by its vote on Voting Paper V.P.(O.M.)(57)12, subject to the adjustment specified in paragraph 24 above.

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

*auricularis*, *Unio*, Spengler, 1793, *Skriv. naturh. Selsk. Köbenhavn* 3 (Hft. 1) : 54

*fluviatilis*, *Margartifera* [sic], Schumacher, 1816, *Overs. K. Dansk. Vidensk. Selsk. Forh.* 7 : 7

*Limnaea* Poli, 1791, *Test. utriusque Siciliae* 1 : 31

*Limnaea* Blainville, 1823, *Dict. Sci. nat.* 26 : 449

- Limnaeus* Pfeiffer (C.), 1821, *Naturgesch. Deutsch. Land- u. Süßwass.-Moll.* **1** : 14, 84
- Limnea* Fleming, 1828, *Hist. Brit. Anim.* : 273
- Limneus* Draparnaud, [1801], *Tabl. Moll. France* : 47
- Limnium* Oken, 1815, *Lehrb. Naturgesch.* **3** (Zool.) (Abth. 1) : viii
- Limnoea* Gourdon, 1889, *Cat. rais. Moll. Pique et Affluents* : 70
- Limnoeus* Shuttleworth, 1872, *Enum. Plantes . . . Moll. terrestr. eau douce Ile de Corse* : 28
- Lymnaea* Lamarck, 1799, *Mém. Soc. Hist. nat.*, Paris **1** : 75
- Lymnaea* Oken, 1815, *Lehrb. Naturgesch.* **3** (Zool.) (Abth. 1) : 236
- Lymnaeus* Cuvier (G.L.C.F.D.), 1817, *Règne Anim.* **2** : 412
- Lymnea* Link, 1807, *Besch. Nat.-Samml. Univ. Rostock* **3** : 138
- Lymneus* Férussac, 1812, *Ann. Mus. Hist. nat.*, Paris **9** : 252
- Lymnium* Oken, 1815, *Lehrb. Naturgesch.* **3** (Zool.) (Abth. 1) : 236, 237
- Lymnoea* Lamarck, 1799, *Mém. Soc. Hist. nat.*, Paris **1** : 75
- Lymnoea* Suter, 1913, *Man. N.Z. Mollusca* : 604
- Lymnoeus* Michelin, 1831, *Mag. Zool.* **1** (Moll.) : 22
- Lymnula* Rafinesque, 1819, *J. Phys. Chim. Hist. nat.* **88** : 423
- Lymnus* Montfort, 1810, *Conchyliol. syst. Classif. méth. Coquilles* **2** : 262
- Margaritana* Schumacher, 1817, *Ess. nouv. Syst. Habit. Vers. Test.* : 41, 123
- Margaritifera* (emend. of *Margartifera*) Schumacher, 1816, *Overs. K. Dansk. Vidensk. Selsk. Forh.* **7** : 7
- margaritifera*, *Mya*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 671
- Margaritifera* Schumacher, 1816, [an Invalid Original Spelling for *Margaritifera* q.v.]
- pictorum*, *Mya*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 671
- Unio* Philipsson, 1788, *Dissert. hist.-nat. nov. Test. Genera* : 17

27. The following is the reference for the selection of a type species for a genus specified in the Ruling given in the present *Opinion* :—

For *Lymnaea* Lamarck, 1799 : Fleming (J.), 1818, *Ency. brit. Suppl.* 4th—6th Eds. **3** : 313

28. The following are the original references for the family-group names placed respectively on the *Official List* and *Official Index* of names of taxa of the family-group category :—

LYMNAEADAE Gray (J.E.), 1824, *Ann. Phil.* **25** : 107

LYMNAEIDAE (correction of LYMNIDIA) Rafinesque, 1815, *Analyse Nature* : 144

LYMNIDIA Rafinesque, 1815 (an Invalid Original Spelling for LYMNAEIDAE)

MARGARITANINAE Ortmann, 1910, *Nautilus* **23** : 114

MARGARITIFERIDAE Haas (F.), 1940, *Field Mus. Publ. (Zool. Ser.)* **24** : 119

UNIONIDAE Fleming (J.), 1828, *Hist. Brit. Anim.* : 408, 415

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 Ninety-Five (495) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-First day of August, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**



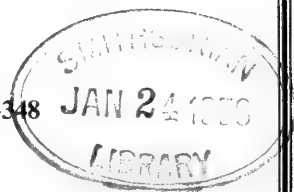
# OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

*Edited by*

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

Secretary to the Commission

VOLUME 17. Part 18. Pp. 323—348



## OPINION 496

Use of the Plenary Powers to secure the continued use in their accustomed sense of the generic names *Olenus* Dalman, [1827], and *Paradoxides* Brongniart, 1822 (Class Trilobita)

**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature

and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office

41, Queen's Gate, London, S.W.7

1957

**Price Seventeen Shillings and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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## OPINION 496

### USE OF THE PLENARY POWERS TO SECURE THE CONTINUED USE IN THEIR ACCUSTOMED SENSE OF THE GENERIC NAMES "OLENUS" DALMAN, [1827], AND "PARADOXIDES" BRONGNIART, 1822 (CLASS TRILOBITA)

**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 *Entomolithus* Linnaeus, 1759 ;
- (ii) the generic name *Entomostracites* Wahlenberg, [1821] ;
- (iii) the specific name *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus*.

(b) All designations, indications or selections of type species for the genus *Olenus* Dalman, [1827], made prior to the present Ruling are hereby set aside and the nominal species *Entomostracites gibbosus* Wahlenberg, [1821], is hereby designated to be the type species of the above genus.

(2) It is hereby ruled under the provisions of *Declaration* 28 that the nominal family-group taxon PARADOXIDES Emmrich (H.[F.]) was based upon a misidentification of *Paradoxides* Brongniart, 1822, the nominal genus selected as its type genus, and therefore that the foregoing family-group name possesses no status in zoological nomenclature.

(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) *Paradoxides* Brongniart, 1822 (gender : masculine)  
(type species, by selection by Barrande (1852) :

*Entomostracites paradoxissimus* Wahlenberg, [1821], as defined by the lectotype selected by Poulsen (C.) (1956)) (Name No. 1238) ;

- (b) *Olenus* Dalman, [1827] (gender : masculine) (type species, by designation under the Plenary Powers in (1) (b) above : *Entomostracites gibbosus* Wahlenberg, [1821]) (Name No. 1239) ;
- (c) *Parabolina* Salter, 1849 (gender : feminine) (type species, by monotypy : *Entomostracites spinulosus* Wahlenberg, [1821]) (Name No. 1240).

(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) *paradoxissimus* Wahlenberg, [1821], as published in the combination *Entomostracites paradoxissimus*, defined as specified in (3)(a) above (specific name of type species of *Paradoxides* Brongniart, 1822) (Name No.1458) ;
- (b) *gibbosus* Wahlenberg, [1821], as published in the combination *Entomostracites gibbosus* (specific name of type species of *Olenus* Dalman, [1827]) (Name No. 1459) ;
- (c) *spinulosus* Wahlenberg, [1821], as published in the combination *Entomostracites spinulosus* (specific name of type species of *Parabolina* Salter, 1849) (Name No. 1460).

(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) *Entomolithus* Gesner, 1758 (a name published in a work rejected for nomenclatorial purposes under the Plenary Powers by the Ruling given in *Opinion* 230) (Name No. 1084) ;

- (b) *Entomolithus* Linnaeus, 1759, as suppressed under the Plenary Powers in (1)(a)(i) above (Name No. 1085) ;
- (c) *Entomostracites* Wahlenberg (G.), [1821], as suppressed under the Plenary Powers in (1)(a)(ii) above (Name No. 1086) ;
- (d) *Olenus* Dejean, 1835 (a junior homonym of *Olenus* Dalman, [1827]) (Name No. 1087) ;
- (e) *Olenus* Thomson, 1857 (a junior homonym of *Olenus* Dalman, [1827]) (Name No. 1088) ;
- (f) *Paradoxides* Motschulsky, 1851 (a junior homonym of *Paradoxides* Brongniart, 1822) (Name No. 1089) ;
- (g) *Paradoxites* Goldfuss, 1843 (an Invalid Emendation of *Paradoxides* Brongniart, 1822) (Name No. 1090).

(6) 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) *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus*, as suppressed under the Plenary Powers in (1)(a)(iii) (Name No. 482) ;
- (b) *tessini* Brongniart, 1822, as published in the combination *Paradoxides tessini* (a junior objective synonym of *paradoxissimus* Wahlenberg, [1821], as published in the combination *Entomostracites paradoxissimus*) (Name No. 483).

(7) 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) OLENIDAE Burmeister, 1843 (type genus : *Olenus* Dalman, [1827]) (Name No. 203) ;

- (b) PARADOXIDIDAE (correction of PARADOXIDES) Corda (A.J.C.), 1847 (type genus : *Paradoxides* Brongniart, 1822) (Name No. 204).

(8) 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) PARADOXIDEN Emmrich (H.[F.]), 1844 (ruled under (2) above to be invalid under *Declaration 28* as being a nominal family-group taxon based on a misidentified type genus) (Name No. 234) ;
- (b) PARADOXIDES Corda (A.J.C.), 1847 (type genus : *Paradoxides* Brongniart, 1822) (an Invalid Original Spelling for PARADOXIDIDAE) (Name No. 235).

## I. THE STATEMENT OF THE CASE

On 27th September 1951, Professor Christian Poulsen (*Universitetets Mineralogisk-Geologiske Institut, Mineralogisk Museum, Copenhagen, Denmark*) submitted a preliminary communication to the Office of the Commission with the object of securing from the International Commission a Ruling which would provide a firm basis for the continued use in its accustomed sense of the generic name *Olenus* Dalman, [1827] (Class Trilobita). Owing first, to the pressure of current work, and, later, to the preparations for the meeting of the International Congress of Zoology to be held at Copenhagen in 1953 it was not immediately possible for any progress to be made in connection with the present case. In the autumn of 1953, immediately following the close of the Copenhagen Congress, correspondence on the problems raised by the present case was opened by the Secretary with Professor Poulsen and later at Professor Poulsen's request these discussions were joined by Dr. C. J. Stubblefield (*Geological Survey and Museum, London*). Some of the issues involved were found to be of a somewhat intractable character and in consequence it was

not until 24th November 1955 that the following definitive application was laid before the International Commission by Professor Poulsen :—

**Proposed use of the Plenary Powers to secure the availability of the generic names “*Olenus*” Dalman, [1827], and “*Paradoxides*” Brongniart, 1822 (Class Trilobita) for use in the sense in which these names are customarily employed**

By CHRISTIAN POULSEN

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The principal object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to provide a valid basis for the continued use of the generic name *Olenus* Dalman, [1827] (Class Trilobita). A second but important part of the object of the present application is to provide a secure basis for the current usage of the generic name *Paradoxides* Brongniart, 1822, for the problems involved in connection with this name are inextricably intermingled with those which arise in connection with the name *Olenus* Dalman. This latter name is very well known, having been used for about one hundred years as the name for a guide fossil of the Upper Cambrian. This long sustained and universal usage has led to the use of such stratigraphical terms as “*Regio Olenorum*”, “*Olenian*”, “*Olenus* beds”, “*Olenus* Series”, “*Olenus*-Stufe”, “*Olenus*-Étage”, etc. From the systematic point of view also the name *Olenus* Dalman is of importance, for it has given its name to the family OLENIDAE. There can be no doubt whatever that the disappearance of the name *Olenus* in synonymy—as would be inevitable if the normal provisions of the *Règles* were to be applied in this case—would lead to immense confusion. Probably of equal importance to that of *Olenus*, the name *Paradoxides* is also one which it is highly desirable should be conserved, for it also has been in use for over a hundred years, for a well-known group of species from the Middle Cambrian. It has also been applied for stratigraphical terms such as “*Paradoxidian*”, “*Paradoxides* beds”, “*Paradoxides*-lagren”, “*Paradoxides* Series”, “*Paradoxides*-Stufe”, etc. It is also the name of the type genus of the family PARADOXIDIDAE and is widely used in faunistic work to denote particular areas of distribution. The nomenclatorial issues involved in the present case are rather complicated and in addition there are bibliographical problems which call for consideration. Particulars are given below of those matters which are strictly relevant to the present application.

### I. The Historical Background

2. Before examining the action taken by Brongniart when establishing the nominal genus *Paradoxides*, it is necessary clearly to note the distinction between two nominal species established by Linnaeus under the same name, both of which enter into this problem. The first of these species was established by Linnaeus in 1753 (*Mus. tessin.* : 98, pl. iii, figs. 1, 2) under the name *Entomolithus paradoxus* in the form "*paradoxus*. 3. *Entomolithus Monoculi*". It should be noted that in the Tab. Explic. of this 1753 publication the words *Entomolithus Monoculi* appeared alone. As the name *paradoxus*, as used in the above publication, was published before the starting point of zoological nomenclature it possesses no status under the *Règles*. The species so named by Linnaeus was some sixty years later renamed by Wahlenberg ([1821], *Nova Acta Soc. Sci. upsal.* **8** : 34) who called it *Entomostracites paradoxissimus*. (There is a problem as to the date to be assigned to Wahlenberg's paper, for a discussion of which see paragraph 3 below.) The second of the Linnean names concerned is *Entomolithus paradoxus* Linnaeus, 1759 (*K. Vetensk.-Akad. Handl.*, Stockholm **20** : 19, fig. 1). This name has never subsequently been used for this species, presumably because the early workers considered that it was invalid as a junior homonym of *Entomolithus paradoxus* Linnaeus, 1753. In the paper referred to above (**8** : 38) this species was identified by Wahlenberg with reserve with a new nominal species to which he gave the name *Entomostracites spinulosus*. Elsewhere however in the same paper (**8** : 29) the same 1759 figure was with much less justification referred to *Entomostracites caudatus* (Brünnich, 1781). The name *paradoxus* Linnaeus, 1753, being a pre-1758 name does invalidate the name *paradoxus* Linnaeus, 1759, which is accordingly the oldest available name for the species concerned. In consequence the name *spinulosus* Wahlenberg habitually used for this species is an actual or possible junior subjective synonym of *paradoxus* Linnaeus, 1759. This question is further discussed in paragraph 12 below.

3. The next author who has to be considered is Wahlenberg. Before examining his treatment of this group it will be helpful if we dispose of the bibliographical problem which arises in connection with his paper entitled "*Petrificata Telluris Svecanae examinata a Georgio Wahlenberg*". This was the first paper to be published in volume 8 of the *Nova Acta Regiae Societatis Scientiarum upsaliensis* and is usually treated as having been published in 1821. There is evidence, however, to show that this paper was available earlier in pre-print form, for Dalman definitely states that it appeared in 1818, while Brongniart without stating when publication took place remarked that he himself did not have his attention drawn to this paper until 1819. Nevertheless, in view of the Ruling rejecting pre-prints given by the International Commission on Zoological Nomenclature in its *Opinion* 59 and the subsequent incorporation of that Ruling in the *Règles* by the Thirteenth



International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* **4** : 146) the date of publication of Wahlenberg's paper must be taken as 1821, the year in which it was first validly "published".

4. In the foregoing paper Wahlenberg realised that the nominal species established under the name *Entomolithus paradoxus* by Linnaeus in 1753 in his *Museum tessinianum* was a composite species and he gave a new name to the original of fig. 1 of the above publication and he referred either to new or to previously described nominal species the specifically unassigned species placed in *Entomolithus* in 1753 which later were illustrated by Linnaeus in his 1759 publication (*K. Vetensk.-Akad. Handl.*, Stockholm **20** : pl. 1, figs. 2—4). At the same time he established for these species the nominal genus *Entomostracites* ([1821], *Nova Acta Soc. Sci. upsal.* **8** : 25) for the species so named. Wahlenberg's *Entomostracites* was not looked upon by him as a new genus, being published as a substitute name (*nom. nov.*) for the name *Entomolithus* Linnaeus, 1759 (*K. Vetensk.-Akad. Handl.*, Stockholm **20** : 19). He also rejected the specific name *paradoxus* Linnaeus, 1753, as published in the combination *Entomolithus paradoxus*, giving to the species concerned the new name *Entomostracites paradoxissimus* (*loc. cit.* **8** : 34, pl. 1, fig. 1), and he illustrated a more perfect specimen. In the same paper he gave the name *Entomostracites gibbosus* (*loc. cit.* **8** : 39) to one of the components of the genus *Entomolithus* of Linnaeus of 1759, again illustrating better material. Finally, as already noted (paragraph 2 above) he gave the name *Entomostracites spinulosus* (*loc. cit.* **8** : 38) to a species which he identified with reserve with that to which in 1759 Linnaeus had applied the name *Entomolithus paradoxus*.

5. We must now consider the generic name *Paradoxides* published by Brongniart in 1822 (*Paradoxides* Brongniart (A.), in Brongniart & Desmarest, *Hist. nat. Crust. foss.* : 31, 30). Owing to the confused and confusing manner in which this name was introduced and the differences of opinion regarding the species to be accepted as the type species of this genus which have in consequence arisen it is necessary to examine closely the action taken by Brongniart. We have first to note that, when erecting the nominal genus *Paradoxides*, Brongniart divided it into two sections. In the first of these sections he placed (i) a new nominal species *Paradoxides tessini* (*loc. cit.* : 31) (to which it will be necessary to revert a little later), (ii) *Entomostracites spinulosus* Wahlenberg (**8** : 38) and (iii) *Entomostracites scarab[ae]oides* Wahlenberg (**8** : 41). In the second of these sections he placed (i) *Entomostracites gibbosus* Wahlenberg and (ii) *Entomostracites laciniatus* Wahlenberg (**8** : 34). On the general scope of his genus *Paradoxides* Brongniart wrote as follows (: 30) :—

. . . renferme les espèces de la famille des Trilobites, qui ont été décrites par Linné, sous le nom d'*Entomolithus paradoxus* [i.e. the species so named by Linnaeus, in 1753 in the *Mus. tess.*], nom qu'on a étendu, comme je l'ai dit, à des animaux que le naturaliste suédois

n'avait pas eu en vue, et qu'il n'avait pas même connus. C'est pour respect pour lui et pour rappeler que c'est ici le véritable *Entomolithus paradoxus* que j'ai donné à ce genre le nom de *Paradoxide* [this French version of the name being Latinised by Brongniart as *Paradoxides* on page 31], nom peut-être un peu singulier, mais que rappelle, comme l'avait voulu Linné, les formes singulières de ces animaux.

6. It is necessary now to consider the nominal species *Paradoxides tessini* which, as already noted, was established by Brongniart in the foregoing paper. On page 31 of his paper Brongniart described Wahlenberg's species *Entomostracites paradoxissimus* and reproduced, as fig. 1 on plate iv, the figure given by Wahlenberg for this species. Both in this description and on the legend of his pl. iv Brongniart applied to this species the new name *Paradoxides tessini*. This entry was accompanied by the following footnote: "*Entomostracites paradoxissimus*, Wahl. no. 9, tab. I, fig. 1. *Entomolithus paradoxus*, Linn., Mus. tess., tab. III, fig. 1 (pessima)". On the following page (: 32) in a further discussion of his species *Paradoxides tessini*, Brongniart observed: "Malgré l'imperfection de la figure de l'Entomolithe décrit par Linné dans le muséum de Tessin, nous ne pouvons douter, en la comparant à celle de M. Wahlenberg, que Linné n'ait décrit le même animal. M. Wahlenberg n'en doute pas non plus, puisqu'il donne cet Entomolithe du *Museum Tessinianum*, comme synonyme du sien". It is thus evident that the name *tessini* Brongniart, like *paradoxissimus* Wahlenberg, is a substitute name for *paradoxus* Linnaeus, 1753 (*Mus. tess.*), as published in the combination *Entomolithus paradoxus*. The name *tessini* Brongniart is therefore invalid as being a junior objective synonym of *paradoxissimus* Wahlenberg.

7. The next name which has to be considered is the generic name *Olenus* Dalman (*K. Vetensk.-Akad. Handl.*, Stockholm 1826(1) : 150). The paper in which this name was published formed part of the volume for the year 1826 but was not actually published until 1827, to which year therefore the name *Olenus* Dalman should be attributed. In this paper Dalman discussed a number of names published by previous authors and took exception to them on various grounds. In the present case he proposed the name *Olenus* expressly as a substitute name for the name *Paradoxides* Brongniart. The name *Olenus* is therefore a junior objective synonym of the name *Paradoxides* Brongniart.

8. There is one other generic name which has to be considered in this connection. This is *Parabolina* Salter, 1849 (*Mem. geol. Surv. United Kingd.*, Figures, Decade 2 : pl. ix, page 2 of expl.). The type species of this genus (by monotypy) is *Entomostracites spinulosus* Wahlenberg, [1821], which, as we have seen (paragraph 4 above), is a nominal species, which was identified by its author with reserve with that to which in 1759 (*nec* 1753) Linnaeus gave the name *Entomolithus paradoxus*.

## II. Discussion of the nomenclatorial issues involved

**9. The generic name "Entomostracites" Wahlenberg, [1821] :** The nominal genus *Entomostracites* was established by Wahlenberg as a substitute for the name *Entomolithus* Linnaeus, 1759, and comprised fourteen species, including those involved in the present case. Since no type species was designated for either of these genera by Wahlenberg and none has been selected by any subsequent author, any of the species originally included by Linnaeus could be selected as type species. So long as the name *Entomolithus* Linnaeus, 1759, retains its status of availability, it constitutes a serious potential threat under the Law of Priority both to the name *Paradoxides* Brongniart and to the name *Olenus* Dalman. The name *Entomolithus* Linnaeus has not been used for over a century, and its re-introduction at the present time would be bound to give rise to serious confusion and would be open to the strongest objection. Accordingly, as a first step in the stabilisation of the nomenclature of this group, the name *Entomolithus* Linnaeus should be suppressed by the International Commission under its Plenary Powers, being then placed on the *Official Index of Rejected and Invalid Generic Names in Zoology*. The substitute name *Entomostracites* Wahlenberg, [1821], should at the same time be suppressed by the International Commission under its Plenary Powers for it also has not been used for over one hundred years and its re-introduction would cause fully as great confusion as would the resurrection of the older name *Entomolithus* Linnaeus, 1759. Another name which has been considered, namely *Entomolithus* Gesner, 1758 (*Tract. Petrif.* : 57), is fortunately already invalid, the Commission having suppressed for nomenclatorial purposes in *Opinion* 230 (1954, *loc. cit.* 4 : 231—238) the work in which it was published. No action now requires therefore to be taken by the Commission in regard to this name beyond placing it also on the *Official Index*.

**10. Type species of the genus "Paradoxides" Brongniart, 1822 :** Under a decision recently taken by the International Commission and since embodied (as I am informed by Mr. Hemming, Secretary to the Commission) in *Declaration* 22 (now in the press)<sup>1</sup> Rule (a) in Article 30 of the *Règles* (Rule relating to the designation of a type species for a genus by the original author of the generic name) is, like Rule (g) (selection of a type species by a later author) to be "rigidly construed". In these circumstances it is evident that Brongniart cannot be regarded as having designated a type species for his genus *Paradoxides*, for, although he clearly erected this genus for "le véritable *Entomolithus paradoxus*" of Linnaeus, 1753, he placed other nominal species in this genus and did not explicitly designate any of the included species as the type species. It is necessary therefore to examine the literature to determine which of Brongniart's included nominal species was

<sup>1</sup> This *Declaration* has since been published (1956, *Ops. Decls. int. Comm. zool. Nomencl.* 12 : ix—xviii).

first selected as the type species of *Paradoxides* by a later author. The first author expressly to deal with this subject was Barrande who in 1852 (*Syst. silur. Centre Bohême* 1 : 362) wrote as follows : "Alex. Brongniart fonde le genre *Paradoxides* pour renfermer les espèces décrites par Linné sous le nom d'*Entomolithus paradoxus* [Barrande's italics]. Il prend pour type, avec le nom de *Parad. tessini*, la forme nommée *Ent. paradoxissimus* par Wahlenberg, dont il reproduit la figure . . .". Barrande's statement in this passage that Brongniart designated a type species for his genus *Paradoxides* was, as we have seen, incorrect. At this point, however, it is necessary to recall the decision by the Thirteenth International Congress of Zoology, Paris, 1948 that "an author is to be treated as having selected a given nominal species to be the type species of a given nominal genus . . . when he does no more than state that a specified such species is the type species of the nominal genus concerned, irrespective . . . of whether he states or implies, either correctly or otherwise, that that nominal species had been selected by some previous author to be the type species of that nominal genus . . . , provided in such a case that the author concerned makes it clear that he himself accepts, for whatever reason, the species in question as the type species of the genus concerned" (1950, *Bull. zool. Nomencl.* 4 : 181—182). Applying the foregoing provision to the present case, we find that, although Barrande was in error when he stated that Brongniart had himself designated *Paradoxides tessini* Brongniart as the type species of *Paradoxides*, his own action in accepting that species as the type species of that genus constitutes under the *Règles* a valid selection by himself of that species as the type species of *Paradoxides*. Since *Paradoxides tessini* Brongniart, 1822, is a junior objective synonym of *Entomostracites paradoxissimus* Wahlenberg, [1821], both of which names were cited by Barrande when making the type selection described above, and also by Brongniart when establishing the genus *Paradoxides*, Barrande is, under *Declaration* 21 (now in the press)<sup>2</sup> to be treated as having selected the type species of this genus under the name *paradoxissimus* rather than under that of its junior objective synonym *tessini*. The foregoing type selection is in complete harmony with the current usage of the name *Paradoxides*. The original specimen of Wahlenberg's restored illustration of *Entomostracites paradoxissimus* ([1821] : pl. 1, fig. 1) is preserved in the Palaeozoological Department of the Naturhistoriska Riksmuseet, Stockholm, where it bears the Registered Number Ar. 46147. It was re-figured in 1953 by A. H. Westergård (*Sver. Geol. Unders.* (Ser. C) No. 520 : pl. viii, fig. 2). This specimen is hereby selected as the lectotype of the nominal species *Entomostracites paradoxissimus* Wahlenberg, [1821]. The Commission is now asked to place the generic name *Paradoxides* Brongniart, 1822, on the *Official List of Generic Names in Zoology* with *Entomostracites paradoxissimus* Wahlenberg, [1821], as type species by selection by Barrande (1852).

<sup>2</sup> This *Declaration* has since been published (1956, *Ops. Decls. int. Comm. zool. Nomencl.* 12 : i—viii).

**11. Type species of the genus "Olenus" Dalman, [1827] :** As has already been explained (paragraph 7 above) the name *Olenus* Dalman, [1827], is no more than a substitute name for the name *Paradoxides* Brongniart, 1822. As such, it takes automatically as its type species the same species as that which is the type species of the genus *Paradoxides*. Accordingly, under the *Règles* the type species of *Olenus* Dalman is *Entomostracites paradoxissimus* Wahlenberg and the name *Olenus* Dalman falls as a junior objective synonym of *Paradoxides* Brongniart. For the reasons explained in the opening paragraph of the present application such a disposal of the name *Olenus* Dalman would give rise to the greatest possible confusion and some means must be found for preventing this situation from arising. This end can only be achieved by the use by the International Commission of its Plenary Powers to designate as the type species of this genus a species in harmony with current usage, and this is accordingly the action which the Commission is now asked to take. The species most suitable for designation as the type species of this genus is *Entomostracites gibbosus* Wahlenberg, [1821] (discussed in paragraph 4 above). The generic name *Olenus*, Dalman, [1827], so stabilised should be placed on the *Official List of Generic Names in Zoology* and the name *gibbosus* Wahlenberg, [1821], as published in the combination *Entomostracites gibbosus*, should be placed on the *Official List of Specific Names in Zoology*.

**12. Name for the type species of the genus "Parabolina" Salter, 1849 :** As has already been explained (paragraph 8 above) the type species of this genus is the nominal species *Entomostracites spinulosus* Wahlenberg, [1821]. This species has always been known by this name, but as explained in paragraph 4, it may be only a junior subjective synonym of the much older name *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus*, a name, however, which has never been used by any author since the time of Linnaeus. On the ground of the need for maintaining continuity in nomenclature it would be most objectionable if a long-neglected name such as *paradoxus* Linnaeus, 1759, were to be substituted for the name *spinulosus* Wahlenberg which has been in use for over a hundred years. In the present case there is a further, and even more potent reason why such a substitution should be avoided. For the name *paradoxus* Linnaeus, 1759, was rejected by the zoologists of the day because it was a homonym of the name *paradoxus* Linnaeus, 1753, published in the same combination (i.e. the name applied by Linnaeus to the species, of which now the oldest available name is *paradoxissimus* Wahlenberg, [1821] and, while it is true that under the *Règles* this objection no longer holds good—in view of the fact that the name *Entomolithus paradoxus* Linnaeus, 1753, possesses no status of availability because of having been published before the starting point of zoological nomenclature (as defined by Article 26 of the *Règles*)—the re-introduction in this group of a specific name consisting of the word "*paradoxus*" could not fail to give rise to the most serious confusion. These

objections are greatly heightened by the fact that it is not clearly established that the nominal species *Entomolithus paradoxus* Linnaeus, 1759, and *Entomostracites spinulosus* Wahlenberg, [1821], represent the same taxonomic unit, with the result that, so long as the name *paradoxus* Linnaeus, 1759, retains the status of availability, there will be a risk that the species concerned will be called by the name *spinulosus* Wahlenberg by some specialists and by the name *paradoxus* Linnaeus by other workers. The International Commission is accordingly asked to prevent this confusion from arising by using its Plenary Powers to suppress the name *paradoxus* Linnaeus, 1759, thus making the familiar name *spinulosus* Wahlenberg, [1821], unquestionably the oldest available name for the species concerned. As part of this arrangement the Commission is asked to place the foregoing name so protected on the *Official List of Specific Names in Zoology* and at the same time to place the generic name *Parabolina* Salter, 1849, with the above species as type species, on the *Official List of Generic Names in Zoology*.

### 13. Other action in regard to generic and specific names required :

In addition to the action recommended in paragraphs 10, 11 and 12 above, the following action in relation to generic and specific names is required in order to dispose of all matters in regard to such names involved in the present case : (1) The following invalid generic names should be placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* : (a) *Olenus* Dejean, 1835, *Cat. Coléopt. Coll. Dejean* (1835 Ed.) : 439 (a *nomen nudum*) ; (b) *Olenus* Thomson, 1857, *Arch. ent. Paris* 1 : 157 (a name for a genus of the Order Coleoptera (Class Insecta) which is a junior homonym of *Olenus* Dalman, [1827], one of the generic names dealt with in the present application, and which has as such been replaced by the name *Balius* Guérin, 1857, in Thomson, *Arch. ent. Paris* 1 : 261) ; (c) *Paradoxides* Motschulsky, 1851, *Bull. Soc. imp. Nat. Moscou* 24(2) : 510 (a name for a genus of the Order Psocoptera (Class Insecta) which is a junior homonym of *Paradoxides* Brongniart, 1822 (one of the generic names dealt with in the present application) and which, as such, has been replaced by the generic name *Paradoxenus* Motschulsky, 1853, *Etudes ent.* 1 : 19) ; (d) *Paradoxites* Goldfuss, 1843, *Neues Jahrb. Min.* 1843 : 347 (an Invalid Emendation of *Paradoxides* Brongniart, 1822) ; (2) the following invalid specific name should be placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* : *tessini* Brongniart, 1822, as published in the combination *Paradoxides tessini* (see paragraph 5 above).

**14. Family-group-name problems :** As explained in the opening paragraph of the present application, the generic names *Paradoxides* Brongniart and *Olenus* Dalman are both type genera of families. The family names concerned should be placed on the *Official List of Family-Group Names in Zoology* at the same time that the foregoing generic

names are placed on the *Official List of Generic Names in Zoology*. The generic name *Olenus* Dalman was taken by Burmeister (H.), in 1843 (*Die Organisation der Trilobiten*, Berlin : 47) as the base for the family-group name OLENIDAE. In erecting this nominal unit, Burmeister recognised *Paradoxides* as a genus distinct from *Olenus*. The generic name *Paradoxides* was first taken as the base for a family-group name by Emmrich (H.[F.]) in 1844 (*Zur Naturgeschichte der Trilobiten, Program zur öffentlicher Prüfung . . .* Meiningen : 17), who introduced the name PARADOXIDEN as the name for a subfamily. Emmrich, however, gave as examples of the genus *Paradoxides* only *P. gibbosus* and *P. latus*, both species which nowadays are referred to the family OLENIDAE ; further, he took (: 18) *O. tessini* to represent the genus *Olenus* in his family OLENEN. It would thus be misleading and historically incorrect to treat Emmrich as having established the family PARADOXIDIDAE as correctly typified by *Entomostracites paradoxissimus* Wahlenberg, the type species of its type genus. I accordingly ask the International Commission to use its Plenary Powers to suppress the family-group name PARADOXIDEN Emmrich, 1844, for the purposes both of the Law of Priority and of the Law of Homonymy. This action will clear the ground for the acceptance of the family-group name PARADOXIDES introduced for use in the correct sense by Corda (A.J.C.) in 1847 (*in* Hawle (I.) & Corda (A.J.C.) *Prodrom einer Monographie der böhmischen Trilobiten* : 11). In this work Corda established a number of new families, the names of which he formed by adding the termination “-ides” to what he regarded as the root (or the stem) of the generic name concerned. In the case of the family-group name based upon the generic name *Paradoxides* the resulting family-group name, as formed by Corda, was PARADOXIDES. In the family so established Corda placed nineteen genera, including the genus *Paradoxides* in which he placed seven species. So far as is known, the generic name *Parabolina* Salter, 1847, has not been taken as the base for a family-group name.

### Recommendations

15. For the reasons set forth in the present application the International Commission is now asked :—

(1) to 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 *Entomolithus* Linnaeus, 1759 ;

(ii) the generic name *Entomostracites* Wahlenberg, [1821] ;

(iii) the specific name *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus* ;

- (b) to suppress the family-group name PARADOXIDEN Emmerich (H.[F.]), 1844 (type genus : *Paradoxides* Brongniart, 1822, as based upon an erroneously determined type species) for the purposes both of the Law of Priority and of the Law of Homonymy ;
- (c) to set aside all designations or indications of type species for the genus *Olenus* Dalman, [1827], made prior to the Ruling now asked for and, having done so, to designate the nominal species *Entomostracites gibbosus* Wahlenberg, [1821], to be the type species of the above genus ;
- (2) to place the under-mentioned generic names on the *Official List of Generic Names in Zoology* :—
- (a) *Paradoxides* Brongniart, 1822 (gender : masculine) (type species, by selection by Barrande (1852) : *Entomostracites paradoxissimus* Wahlenberg, [1821], as defined by the lectotype selection made in paragraph 10 of the present application) ;
- (b) *Olenus* Dalman, [1827] (gender : masculine) (type species, by designation under the Plenary Powers under (1)(c) above : *Entomostracites gibbosus* Wahlenberg, [1821]) ;
- (c) *Parabolina* Salter, 1849 (gender : feminine) (type species, by monotypy : *Entomostracites spinulosus* Wahlenberg, [1821]) ;
- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
- (a) *gibbosus* Wahlenberg, [1821], as published in the combination *Entomostracites gibbosus* (specific name of type species of *Olenus* Dalman, [1827]) ;
- (b) *paradoxissimus* Wahlenberg, [1821], as published in the combination *Entomostracites paradoxissimus*, defined as specified in (2)(a) above (specific name of type species of *Paradoxides* Brongniart, 1822) ;
- (c) *spinulosus* Wahlenberg, [1821], as published in the combination *Entomostracites spinulosus* (specific name of type species of *Parabolina* Salter, 1849) ;
- (4) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
- (a) *Entomolithus* Gesner, 1758 (a name published in a work suppressed for nomenclatorial purposes under the Plenary Powers) ;



- (b) *Entomolithus* Linnaeus, 1759, as suppressed under the Plenary Powers under (1)(a)(i) above ;
  - (c) *Entomostracites* Wahlenberg (G.), [1821], as suppressed under the Plenary Powers under (1)(a)(ii) above ;
  - (d) *Olenus* Dejean, 1835 (a junior homonym of *Olenus* Dalman, [1827]) ;
  - (e) *Olenus* Thomson, 1857 (a junior homonym of *Olenus* Dalman, [1827]) ;
  - (f) *Paradoxides* Motschulsky, 1851 (a junior homonym of *Paradoxides* Brongniart, 1822) ;
  - (g) *Paradoxites* Goldfuss, 1843 (an Invalid Emendation of *Paradoxides* Brongniart, 1822) ;
- (5) to place the under-mentioned specific (names on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—
- (a) *paradoxus* Linnaeus, 1759, as published in the combination *Entomolithus paradoxus*, as suppressed under the Plenary Powers under (1)(a)(ii) above ;
  - (b) *tessini* Brongniart, 1822, as published in the combination *Paradoxides tessini* (a junior objective synonym of *paradoxissimus* Wahlenberg, [1821], as published in the combination *Entomostracites paradoxissimus*) ;
- (6) to place the under-mentioned family-group names on the *Official List of Family-Group Names in Zoology* :—
- (a) OLENIDAE Burmeister, 1843 (type genus : *Olenus* Dalman, [1827]) ;
  - (b) PARADOXIDIDAE (correction of PARADOXIDES Corda (A.J.C.), 1847 (type genus : *Paradoxides* Brongniart, 1822) ;
- (7) to place the under-mentioned family-group names on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* :—
- (a) PARADOXIDEN Emrich (H.[F.]), 1844 (type genus : *Paradoxides* Brongniart, 1822), as suppressed under the Plenary Powers under (1)(b) above ;
  - (b) PARADOXIDES Corda (A.J.C.), 1847 (type genus : *Paradoxides* Brongniart, 1822 (an Invalid Original Spelling for PARADOXIDIDAE).

16. I should like to take this opportunity to thank my friend Dr. C. J. Stubblefield, F.R.S., of the Geological Survey of Great Britain for the assistance which he has kindly given in clearing up, on my behalf, a number of bibliographical and other matters on which information was asked for by the Secretary to the Commission in the course of the preparation of the present application.

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt in September 1951 of Professor Poulsen's preliminary communication the question of the continued use in its accustomed sense of the generic name *Olenus* Dalman, [1827] (Class Trilobita), was allotted the Registered Number Z.N.(S.) 623.

**3. Publication of the present application :** The present application was sent to the printer on 30th November 1955 and was published on 12th June 1956 in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (Poulsen, 1956, *Bull. zool. Nomencl.* **12** : 3—13).

**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 12th June 1956 (a) in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Poulsen's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general serial publications and to three palaeontological serials in Europe and America.

**5. Support Received :** Five communications in support of the present application were received, of which one was communicated by two specialists, four as the result of the publication of the application in the *Bulletin of Zoological Nomenclature* and the subsequent issue of Public Notices in regard thereto and one from a specialist who prior to the publication of this case had been in communication in regard to it with Professor Poulsen. Of the six specialists concerned two were resident in Germany ; one in Norway ; one in the United Kingdom and two in U.S.A. The communications so received are reproduced in the immediately following paragraphs.

**6. Support received from G. Henningsmoen (Paleontologisk Museum, Universitetet i Oslo, Norway) :** On 13th October 1955 Dr. G. Henningsmoen (*Paleontologisk Museum, Universitetet i*

*Oslo, Norway*) addressed the following note to the Office of the Commission in support of the present case (Henningsmoen, 1956, *Bull. zool. Nomencl.* **12** : 26) :—

I would like to inform you that I fully support Dr. Poulsen's proposal for preserving the name *Olenus*.

**7. Support received from H. B. Whittington (Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.)** : On 30th July 1956 Dr. H. B. Whittington (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) addressed the following letter to the Office of the Commission in support of a number of cases recently published in the *Bulletin of Zoological Nomenclature* (Whittington, 1956, *Bull. zool. Nomencl.* **12** : 253) :—

I write to express my support for the following proposals :— *Protopeltura*, *Olenus* and *Paradoxides*, and *Cryptonymus*. I believe the actions suggested in each case will be welcome and will promote stability in nomenclature.

**8. Support received from Rudolph Richter and Emma Richter (Forschungs-Institutes und Natur-Museum Senckenberg, Frankfurt a. M., Germany)** : On 30th July 1956 Dr. Rudolph Richter and Frau Emma Richter (*Forschungs-Institutes und Natur-Museum, Frankfurt a. M., Germany*) addressed the following letter to the Office of the Commission in support of several cases recently published in the *Bulletin*, among which was the present case (Richter (R.) & Richter (E.), 1956, *Bull. zool. Nomencl.* **12** : 255) :—

Für den Fall, dass es den betressenden Anträgen helsen kann, möchten wir Ihnen mitteilen, dass wir sie im Interesse der Stabilität der Nomenklatur nachdrücklich unterstützen.

Es handelt sich um folgende Anträge : *Paradoxides*, *Asaphus*, *Trinucleus* and *Cryptonymus*.

. . . . .

**9. Support received from B. F. Howell (Princeton University, New Jersey, U.S.A.)** : On 7th August Dr. B. F. Howell (*Princeton University, New Jersey, U.S.A.*) intimated his support for the present case as follows (Howell, 1956, *Bull. zool. Nomencl.* **12** : 256) :—

I am heartily in favor of the action which Dr. Poulsen recommends. I hope that the Commission will act favorably on his proposal.

**10. Support received from C. J. Stubblefield (Geological Survey & Museum, London) :** On 17th August 1956 Dr. C. J. Stubblefield (*Geological Survey & Museum, London*) sent the following note of support for the present case to the Office of the Commission (Stubblefield, 1956, *Bull. zool. Nomencl.* **12** : 256) :—

I support the proposal that the two well-known generic names *Olenus* Dalman [1827] and *Paradoxides* Brongniart, 1822, should be validated so that they may continue to be used in the sense that they are customarily employed. To discard one or the other would cause immense confusion.

**11. No objection received :** No objection to the action proposed in the present case was received from any source.

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

**12. Issue of Voting Paper V.P.(57)1 :** On 22nd January 1957 a Voting Paper (V.P.(57)1) was issued in which the Members of the Commission were invited to vote either for, or against, “ the proposal relating to the generic names *Olenus* Dalman, [1827], and *Paradoxides* Brongniart, 1822, as set out in Point (1) to (7) in paragraph 15 on pages 11 to 13 of Volume 12 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 *Opinion*].

**13. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 22nd April 1957.

**14. Particulars of the Voting on Voting Paper V.P.(57)1 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)1 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) :*

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

- (b) *Negative Votes :*

None ;

- (c) *On leave of Absence, one (1) :*

Bradley (J.C.) ;

- (d) *Prevented from voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

- (e) *Voting Papers not returned :*

None.

**15. Declaration of Result of Vote :** On 24th April 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)1, signed a Certificate that the Votes cast were as set out in paragraph 14 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.

**16. Adjustment of the form of the decision to be recorded in regard to the family-group name "Paradoxiden" Emmrich, 1844 :** When the stage was reached for the preparation of the Ruling to be given in the *Opinion* embodying the decision taken by the Commission by its vote on Voting Paper V.P.(57)1, consideration was given by the Secretary to the question of the form to be adopted for recording that part of the decision which related to the rejection of the family-group name PARADOXIDEN Emmrich, 1844, as being a name given to a nominal family-group taxon based on a misidentified type genus. As a result, Mr. Hemming on 7th September 1957 executed the following Minute giving directions as to the action to be taken in this matter :—

**Form to be adopted for recording the decision taken by the International Commission in regard to the family-group name "Paradoxiden" Emmrich, 1844 by its vote on Voting Paper V.P.(57)1**

By FRANCIS HEMMING, C.M.G., C.B.E.  
(Secretary to the International Commission on Zoological Nomenclature)

In Application Z.N.(S.)623, Professor Christian Poulsen (*Copenhagen*) asked the International Commission to take certain action under its Plenary Powers for the purpose of maintaining existing practice in the use of the generic names *Olenus* Dalman and *Paradoxides* Brongniart (Class Trilobita). Among the objects of that application was that action should be taken to secure that the family-group name for the second of the above genera should be PARADOXIDIDAE (correction of

PARADOXIDES) Corda, 1847. For this purpose it would be necessary for the Commission to give a Ruling rejecting as unavailable the earlier family-group name PARADOXIDEN Emmrich, 1844, as being based on a misidentified type genus.

2. There being no other means available at that time, Professor Poulsen asked that a Ruling in the above sense should be given by the Commission under its Plenary Powers. Since the submission of Professor Poulsen's application the general question raised above has however been the subject of a decision which has been promulgated by the Commission as *Declaration 28* (1956, *Ops. Decls. int. Comm. zool. Nomencl.* 14 : xi—xxiv), under which it has become the duty of the Commission, in a case such as that presented by the name PARADOXIDEN Emmrich being presented to it, to give a Ruling on the question whether the family-group name in question was in fact a name based upon a misidentified type genus. The above *Declaration* provided further that, where the Commission gave a Ruling that a given family-group name had been so published, that name was to be rejected as possessing no status under either the Law of Priority or the Law of Homonymy.

3. Accordingly in the case of the name PARADOXIDEN Emmrich, the object sought by the applicant is obtainable under the provisions of *Declaration 28* without recourse by the Commission to its Plenary Powers. In these circumstances I now as Secretary hereby direct that, when the Ruling giving effect to the decision taken by the Commission on Voting Paper V.P.(57)1 is prepared, the portion of that decision relating to the rejection of the family-group name PARADOXIDEN Emmrich, 1844, be drawn as a decision taken under *Declaration 28* and not under the Plenary Powers, the use of those Powers not being necessary in view of the adoption of the above *Declaration*.

#### **17. Preparation of the Ruling given in the present "Opinion" :**

On 9th September 1957 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 Commission in its vote on Voting Paper V.P.(57)1, subject, in the case of the portion of that proposal bearing the number (1)(b) (proposal relating to the rejection of the family-group name PARADOXIDEN Emmrich, 1844), to the decision so taken being recorded as having been taken under the provisions of *Declaration 28* and not, as originally proposed, under the

Plenary Powers, this adjustment having been made in compliance with the directions given in the Minute executed by the Secretary on 7th September 1957. The text of the Minute here referred to has been reproduced in paragraph 16 of the present *Opinion*.

**18. 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* :—

*Entomolithus* Gesner, 1758, *Tract. Petrif.* : 57

*Entomolithus* Linnaeus, 1759, *K. Vetensk.-Akad. Handl.*, Stockholm **20** : 19

*Entomostracites* Wahlenberg (G.), [1821], *Nov. Act. Soc. Sci. upsal.* **8** : 25

*gibbosus*, *Entomostracites*, Wahlenberg (G.), [1821], *Nov. Act. Soc. Sci. upsal.* **8** : 39

*Olenus* Dalman, [1827], *K. Vetensk.-Akad. Handl.*, Stockholm **1826**(1) : 150

*Olenus* Dejean, 1835, *Cat. Coléopt. Coll. Dejean* (1835 Ed.) : 439

*Olenus* Thomson, 1857, *Arch. ent. Paris* **1** : 157

*Parabolina* Salter, 1849, *Mem. geol. Surv. U.K.*, Figures, Decade **2** : 2, pl. ix

*Paradoxides* Brongniart (A.), 1822, in Brongniart & Desmarest, *Hist. nat. Crust. foss.* : 31, 30

*Paradoxides* Motschulsky, 1851, *Bull. Soc. imp. Nat. Moscou* **24**(2) : 510

*paradoxissimus*, *Entomostracites*, Wahlenberg (G.), [1821], *Nov. Act. Soc. Sci. upsal.* **8** : 34

*Paradoxites* Goldfuss, 1843, *Neues Jahrb. Min.* 1843 : 347

*paradoxus*, *Entomolithus*, Linnaeus, 1759, *K. Vetensk.-Akad. Handl.*, Stockholm **20** : 19, fig. 1

*spinulosus*, *Entomostracites*, Wahlenberg (G.), [1821], *Nov. Act. Soc. Sci. upsal.* **8** : 38



*tessini*, *Paradoxides*, Brongniart (A.), 1822, in Brongniart & Desmarest, *Hist. nat. Crust. foss.* : 31

**19.** The following is the reference for the selection of a type species for a nominal genus specified in the Ruling given in the present *Opinion* :—

For *Paradoxides* Barrande, 1852, *Syst. silur. Centr.*  
Brongniart, 1822 : *Bohême* 1 : 362

**20.** The following is the reference for the selection of a lectotype for a nominal species specified in the Ruling given in the present *Opinion* :—

For *Entomostracites* Poulsen, 1956, *Bull. zool. Nomencl.* 12 : 8  
*paradoxissimus*  
Wahlenberg, [1821]

**21.** The following are the original references for the family-group names placed on the *Official List* of valid family-group names and on the *Official Index* of invalid names of that category by the Ruling given in the present *Opinion* :—

OLENIDAE Burmeister, 1843, *Die Organisation der Trilobiten*, Berlin : 47

PARADOXIDEN Emmrich (H.[F.]), 1844, *Zur Naturgesch. Trilobiten* : 17

PARADOXIDES Corda (A.J.C.), 1847 (an Invalid Original Spelling for PARADOXIDIDAE)

PARADOXIDIDAE (correction of PARADOXIDES) Corda (A.J.C.), 1847, in Hawle (I.) & Corda (A.J.C.), *Prodrom Monogr. böhm. Trilobiten* : 11

**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 Ninety-Six (496) of the International Commission on Zoological Nomenclature.

DONE in London, this Ninth day of September, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

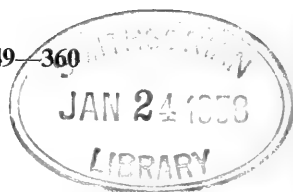
# OPINIONS AND DECLARATIONS RENDERED BY THE INTER- NATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

*Edited by*

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

Secretary to the Commission

VOLUME 17. Part 19. Pp. 349—360



## OPINION 497

Suppression under the Plenary Powers of the specific name *munda* Kuhl, 1820, as published in the combination *Proc.[ellaria] munda* and on the same occasion in the combination *Nectris munda* (Class Aves)

### LONDON :

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

**Price Eight Shillings**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 497

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Zoological Museum, Tring, Herts., England*)

---

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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,  
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*)

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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)

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

## OPINION 497

### SUPPRESSION UNDER THE PLENARY POWERS OF THE SPECIFIC NAME "MUNDA" KUHL, 1820, AS PUBLISHED IN THE COMBINATION "PROC.[ELLARIA] MUNDA" AND ON THE SAME OCCASION IN THE COMBINATION "NECTRIS MUNDA" (CLASS AVES)

**RULING** :—(1) The under-mentioned specific names are hereby suppressed under the Plenary Powers for the purposes of the Law of Priority but not for those of the Law of Homonymy :—

- (a) *munda* Kuhl, 1820, as published in the combination *Proc.[ellaria] munda* ;
- (b) *munda* Kuhl, 1820, as published in the combination *Nectris munda*.

(2) 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) *munda* Kuhl, 1820, as published in the combination *Proc.[ellaria] munda* (Name No. 484) ;
- (b) *munda* Kuhl, 1820, as published in the combination *Nectris munda* (Name No. 485).

#### I. THE STATEMENT OF THE CASE

On 1st August 1952, Mr. W. B. Alexander (then of the *Edward Grey Institute of Field Ornithology, Oxford*) addressed on his own behalf and on that of four New Zealand zoologists to the Office

of the Commission a preliminary communication on the question of the possible suppression by the Commission under its Plenary Powers of the specific name *munda* Kuhl, 1820, as then published both in the combination *Proc.[ellaria] munda* and in the combination *Nectris munda*. The four specialists who joined with Mr. Alexander in approaching the International Commission in this matter were:—(1) R. A. Falla (*Dominion Museum, Wellington, New Zealand*); (2) C. A. Fleming (*Wellington, New Zealand*); (3) R. C. Murphy (*American Museum of Natural History, New York*); (4) D. L. Serventy (*Commonwealth Scientific and Industrial Research Organisation, Perth, Australia*). It was not immediately possible to make any progress with this case. Correspondence in regard to it was, however, exchanged in 1955 between the Secretary and Mr. Fleming who had now replaced Mr. Alexander as the spokesman of the applicants, and this led to the submission to the International Commission of the following definitive application on 17th January 1956:—

**Proposed use of Plenary Powers to suppress the specific name “ munda ”  
Kuhl, 1820, as in the combination “ Proc.[ellaria] munda ”  
and “ Nectris munda ” (Class Aves)**

By W. B. ALEXANDER

(*Edward Grey Institute of Field Ornithology, Oxford, England*)

R. A. FALLA

(*Dominion Museum, Wellington, New Zealand*)

C. A. FLEMING

(*Wellington, New Zealand*)

R. C. MURPHY

(*American Museum of Natural History, New York, U.S.A.*)

and

D. L. SERVENTY

(*Commonwealth Scientific and Industrial Research Organisation,  
Perth, Australia*)

During Cook's first voyage (1769—1770), Joseph Banks, in his manuscript diary preserved in the Alexander Turnbull Library, Wellington, New Zealand, used the name *Nectris munda* for sea-birds, presumably shearwaters, observed at sea in the South Pacific Ocean. Solander prepared a detailed description of *Nectris munda*, quoting two localities, one in the eastern South Pacific, off Chile, the other off the New Zealand coast, but this description was not published until 1912 (Mathews, *Birds Austr.* 2 : 59).

2. Kuhl (1820, *Beitr. Zool. Vergl. Anat.* 1(2) : 148) published the name *Proc. munda*, with *Nectris munda* Banks as a synonym, with a reference to an unpublished figure of Banks and the following brief description :—

“Cauda brevi, cuneiformi alis cauda aliquantum brevioribus. Unguibus falcatis. Magnitudine Perdici.—The beak blue-grey towards the back and the point black, the legs and feet the same colour as in the *Procell. cyanopedo*—25 Febr. 1769. Lat. 48.27 ; longitudo 93. Banks.”

3. *Procell. cyanopedo* is a *nomen nudum* ; the figure of Banks referred to is an unpublished outline pencil sketch by Parkinson, itself considered indeterminable by Salvin (1876).

4. The following is a brief summary of the subsequent history of Kuhl's nominal species *Nectris munda* :—

1868—1869 : Giglioli & Salvadori (*Atti. Soc. ital. Sci. nat.* 11 : 457 and 1869, *Ibis* (7) 2 : 68) described *Puffinus elegans* from the South Atlantic Ocean, stating that the only form with which it might be identified was *Puffinus mundus* (Kuhl) (“*Nectris munda* Banks”) but that the only available diagnosis was too brief and incomplete to depend on (i.e. they considered *munda* indeterminable).

1876 : Salvin (Rowley's *Ornith. Misc.* 1 : 256), after looking carefully at the Parkinson drawing and Solander's manuscript note attached to the name *munda*, saw “little chance, from such incomplete materials, of coming to any decision respecting it”, but he published (: 236) Solander's brief diagnosis of the plumage characters of *munda*.

1908 : Godman (*Monogr. Petrels* 1 : 136—7) quoted the opinions of Giglioli & Salvadori and Salvin and was unable to determine *munda*.

- 1912 : Mathews (*Birds Austr.* 2 : 50—70) reviewed the history of the name, wrongly considered *Nectris munda* Kuhl, 1820 to be a *nomen nudum*, and recognized *Nectris munda* Salvin, 1876, "for a bird answering Solander's description", which he published in full for the first time. The name was used by Mathews in the combination *Puffinus assimilis munda* (Salvin, 1876).
- 1921—1936 : Several authors followed Mathews in the use of the combination *Puffinus assimilis munda* (Salvin, 1876) for small South Pacific shearwaters answering to Solander's description (Mathews and Iredale, 1921, *Man. Birds Austr.* 1 : 23 ; Murphy, 1927, *Amer. Mus. Novit.* 276 : 4 ; Oliver, 1930, *N.Z. Birds* : 127).
- 1933 : Mathews (*Bull. Brit. Orn. Club* 54 (371) : 25) stated that *Proc. munda* Kuhl, 1820, was indeterminable (i.e., he corrected his earlier statement that it was a *nomen nudum*) and that *Nectris munda* Salvin, 1876 was also indeterminable on account of the meagre description given ; he therefore proposed *Puffinus kuhliana* *nom. nov.* for the bird described in Solander's manuscript published by Mathews in 1912.
- 1936 : Murphy (*Oceanic Birds S. America* 2 : 682) stated that *Puffinus assimilis munda* (Salvin) appeared to him to be a synonym of the prior *Puffinus assimilis elegans* Giglioli & Salvadori, and did not mention *Nectris munda* Kuhl.
- 1943 : Fleming and Serventy (*Emu* 43 : 122—3) indicated that Kuhl's publication of the name *Nectris munda* in 1820, with a brief description was not a *nomen nudum* but qualified as the earliest valid name of the subspecies later named *elegans* and *kuhliana*. They failed to observe that Kuhl's name antedates *Puffinus assimilis* Gould, 1838, and, if accepted, would replace the latter as the specific name for six or more subspecies distributed in the North and South Atlantic, South Pacific, and south-east Indian oceans.
- 1949 : The British Ornithologists' Union List Committee (*Ibis* 91(3) : 512) considered *Nectris munda* Kuhl, 1820 ; Kuhl's description and the amplified description published by Salvin (1876) were considered inadequate to determine the species, and it was decided that *N. munda* was indeterminable.
- 1952 : Fleming and Serventy (*Emu* 52 : 17—23) reiterated their opinion that *Nectris munda* Kuhl, 1820 could be recognised from Kuhl's brief description and locality as a race of the species generally known as *Puffinus assimilis* Gould, 1838, but agreed with other authorities that the best course was to consider the



name indeterminable, if this decision could be made irreversible by a Ruling from the International Commission on Zoological Nomenclature.

**5. Summary :** Since the publication in 1820 of the names *Proc.[ellaria] munda* Kuhl and *Nectris munda* Kuhl, the species so named has been considered indeterminable by all reviewers with the exception of two of the present applicants (Fleming & Serventy (1943)), who however, have since agreed (1952) that the suppression of the foregoing names is desirable in the interests of stability in nomenclature.

**6.** For the reasons set forth above we ask the International Commission :—

- (1) to use its Plenary Powers to suppress the under-mentioned specific names for the purposes of the Law of Priority but not for those of the Law of Homonymy :—
  - (a) *munda* Kuhl, 1820, as published in the combination *Proc.[ellaria] munda* ;
  - (b) *munda* Kuhl, 1820, as published in the combination *Nectris munda* ;
- (2) to place the specific names specified in (1) above, as there suppressed under the Plenary Powers, 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 in 1952 of Mr. W. B. Alexander's preliminary communication the question of the suppression under the Plenary Powers of the specific name *munda* Kuhl, 1820, as published in the combination *Proc.[ellaria] munda* (Class Aves), was allotted the Registered Number Z.N.(S.) 704.

**3. Publication of the present application :** The present application was sent to the printer on 20th February 1956 and was published on 12th June of the same year in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (Alexander, Falla, Fleming, Murphy & Serventy, 1956, *Bull. zool. Nomencl.* **12** : 16—18).

**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 12th June 1956 (a) in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (the Part in which the application by Mr. Alexander and his colleagues was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general zoological serial publications and to twelve ornithological serials in various parts of the world.

**5. Comments Received :** The publication of the present application in the *Bulletin of Zoological Nomenclature* and the issue of the Public Notices in regard thereto elicited a comment from a specialist in the United Kingdom on one of the aspects involved, as regards which a supplementary note was later furnished by Mr. Fleming on behalf of the applicants. The two documents concerned are reproduced in the immediately following paragraphs.

**6. Comment received from W. R. P. Bourne (Hove, Sussex, England) :** On 27th June 1956, Mr. W. R. P. Bourne (*Hove, Sussex, England*) addressed the following letter to the Office of the Commission in regard to the present case (Bourne, 1956, *Bull. zool. Nomencl.* **12** : 254—255) :—

In the *Bulletin of Zoological Nomenclature* **12** : 16—18, Messrs. Alexander, Falla, Fleming, Murphy, and Serventy propose the suppression of the specific name *Proc.[ellaria] munda* Kuhl, 1820. I am afraid that I have not been able to examine their proposal carefully, but I received the impression that these authors did not make it clear whether they wished to suppress the name on the grounds of identification or expediency. I submit that there can be no doubt about the identification ; if they wish to suppress this name (which has clear priority for the species) on the grounds of expediency I should like to support them. It seems desirable that a ruling should be obtained on the case with either alternative.

*Proc.[ellaria] munda* Kuhl was described from the unpublished Parkinson drawing no. 24 among the Banksian material at the British

Museum (Natural History). This is a scale pencil drawing made in the field during Cook's first expedition with notes of the colours of the soft parts and the date and place of origin which were quoted by Kuhl. The general appearance and dimensions of the drawing agree with either of the two small shearwaters *Proc.[ellaria] assimilis* Gould or *Proc.[ellaria] lherminieri* Lesson, but the colours of the soft parts are characteristic of *Proc.[ellaria] assimilis*. The drawing shows very prominent edges to all the feathers of the upper parts which appear to be the white borders characteristic of the subantarctic race of *Proc.[ellaria] assimilis* variously known by the names *Puffinus elegans* Giglioli and Salvadori, *P. a. munda* Murphy or *P. a. kuhliana* Mathews. All the other races of *Proc.[ellaria] assimilis* are uniformly dark above. (Murphy, *Amer. Mus. Novit.* 1927; Fleming & Serventy, *Emu* 43 : 113—125). The measurements of different specimens which I have examined are as follows :—

	Culmen (mm.)	Wing (mm.)	Tarsus (mm.)	Mid Toe (mm.)
Parkinson drawing 24 : 48 27S 93E (Type of <i>Proc. munda</i> 1820)	26	180+	39	48
Immature type of <i>Puffinus elegans</i>	27	188	40	48
8 <i>Puffinus assimilis</i> from Tristan (S. Atlantic)	25—27	183—195	39—41	42—48
1 <i>Puffinus assimilis</i> from Rapa Id. (S. Pacific)	25	196	40	43

If there is any further doubt about the identity of this drawing it should be resolved by the associated description of the same bird in the Solander MSS. Z4, p. 115 (first published by Mathews, 1912, *The Birds of Australia*, vol. 2) which states that the bird was “supra cinereo-nigricans, subta nivea” with the upper parts “calybeato-nigricantia”, a description which could only apply to the subantarctic form of *Proc.[ellaria] assimilis* Gould.

Therefore there does not appear to be any doubt about the precise identity of *Proc.[ellaria] munda* Kuhl, and the name has clear priority for the species *Proc.[ellaria] assimilis* Gould. It can only be discarded on the grounds of expediency. Streseman (*Ibis* 91 : 244; *Auk* 67 : 66) has already argued that many of the old names for birds collected on Cook's expeditions which have only recently been identified should be suppressed, on the ground of expediency. The same arguments apply to *Proc.[ellaria] munda* Kuhl, but if this case is admitted there are a very large number of other names which should be treated in the same way.

**7. Rejoinder to W. R. P. Bourne's comment received from C. A. Fleming :** On 3rd December 1956 there was received in the Office of the Commission a rejoinder to Mr. Bourne's comment on the present case (paragraph 6 above) from one of the applicants, Mr. C. A. Fleming, on behalf of himself and one of his co-applicants, Dr. Serventy. The statement so received is as follows :—

Two of the applicants in this case (Fleming and Serventy) agree with Bourne that the name is determinable, and the application for its suppression is based on grounds of expediency. It should be noted, however, that the clear evidence of the identity of *Proc.[ellaria] munda* Kuhl, 1820, cited by Bourne is not part of Kuhl's original description but is derived from manuscript sources in part published by Mathews, 1912 (*The Birds of Australia*, 2), and in part still unpublished (Parkinson's drawing No. 24). Under *Opinion* 126, this information is not relevant to the decision whether Kuhl's name was determinable when proposed.

**8. No Objection Received :** No objection to the action proposed in the present case was received from any source.

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

**9. Issue of Voting Paper V.P.(57)2 :** On 22nd January 1957 a Voting Paper (V.P.(57)2) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the specific name *munda* Kuhl, 1820, as published in the combinations *Proc.* [sic] *munda* and *Nectris munda*, as set out in Points (1) and (2) in paragraph 6 on page 18 of Volume 12 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 *Opinion*].

**10. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 22nd April 1957.

**11. Particulars of the Voting on Voting Paper V.P.(57)2 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)2 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) :*

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

(b) *Negative Votes :*

None ;

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

Bradley (J.C.) ;

(d) *Prevented from voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

(e) *Voting Papers not returned :*

None.

**12. Declaration of Result of Vote :** On 24th April 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)2, 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 9th September 1957, 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.(57)2.<sup>1</sup>

**14. Original References :** The following is the original reference for the two names placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* by the Ruling given in the present *Opinion* :—

<i>munda</i> , Proc.[ <i>ellaria</i> ], Kuhl, 1820	} <i>Beitr. Zool. Vergl. Anat.</i>
<i>munda</i> , <i>Nectris</i> , Kuhl, 1820	
	1(2) : 148

**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 Ninety-Seven (497) of the International Commission on Zoological Nomenclature.

DONE in London, this Ninth day of September, Nineteen Hundred and Fifty-Seven.

*Secretary to the International Commission  
on Zoological Nomenclature*

**FRANCIS HEMMING**

<sup>1</sup> After the present *Opinion* had been signed and when it was already in the Press, a letter dated 14th October, 1957 in support of the application submitted by Mr. Alexander and his colleagues was received from Dr. Dean Amadon (*The American Museum of Natural History, New York*). Dr. Amadon there stated :—"I am in favor of the proposal by Fleming and others that the specific name *munda* of Kuhl be suppressed".

# 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 17. Part 20. Pp. 361-376



## OPINION 498

Validation under the Plenary Powers of the specific name *tuberculatus*, as published by Hall (J.W.) in 1859 in the combination *Acidaspis tuberculatus*, and use of the same Powers to provide an assured basis for the use of the generic name *Leonaspis* Richter (R.) & Richter (E.), 1917 (Class Trilobita)

LONDON :

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1957

Price Ten Shillings and Sixpence

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 498

### 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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 498

VALIDATION UNDER THE PLENARY POWERS OF THE SPECIFIC NAME "TUBERCULATUS", AS PUBLISHED BY HALL (J.W.) IN 1859 IN THE COMBINATION "ACIDASPIS TUBERCULATUS", AND USE OF THE SAME POWERS TO PROVIDE AN ASSURED BASIS FOR THE USE OF THE GENERIC NAME "LEONASPIS" RICHTER (R.) & RICHTER (E.), 1917 (CLASS TRILOBITA)

**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 *Acanthaloma* Conrad, 1840 ;
- (ii) the specific name *spinosa* Conrad, 1841, as published in the combination *Acantholoma* [sic] *spinosa* ;
- (iii) the specific name *conradi* Castelnau, 1843, as published in the combination *Acantholoma* [sic] *conradi*.

(b) The under-mentioned specific name is hereby suppressed for the purposes both of the Law of Priority and of those of the Law of Homonymy :—

*tuberculatus* Conrad, 1840, as published in the combination *Acidaspis tuberculatus*.

(c) It is hereby directed that the binomen *Acidaspis tuberculatus* as published by Hall (J.W.) in 1859 be treated as being a scientific name (binominal combination) then published for the first time, and the above name, as so published, is hereby validated.

(2) The under-mentioned generic name is hereby placed on the *Official List of Generic Names in Zoology* with the Name No. 1241 :—

*Leonaspis* Richter (R.) & Richter (E.), 1917 (gender : feminine) (type species, by original designation : *Odontopleura leonhardi* Barrande, 1846).

(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) *leonhardi* Barrande, 1846, as published in the combination *Odontopleura leonhardi* (specific name of type species of *Leonaspis* Richter (R.) & Richter (E.), 1917) (Name No. 1466) ;

(b) *tuberculatus* Hall (J.W.), 1859, as published in the combination *Acidaspis tuberculatus* and as validated under the Plenary Powers in (1)(c) above (Name No. 1467).

(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) *Acanthaloma* Conrad, 1840, as suppressed under the Plenary Powers in (1)(a)(i) above (Name No. 1093) ;

(b) *Acantholoma* Conrad, 1841 (an Erroneous Subsequent Spelling for *Acanthaloma* Conrad, 1840) (Name No. 1094) ;

(c) *Acantholoma* Castelnau, 1843 (an Erroneous Subsequent Spelling for *Acanthaloma* Conrad, 1840) (Name No. 1095).

(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) *spinosa* Conrad, 1841, as published in the combination *Acantholoma* [sic] *spinosa*, as suppressed under the Plenary Powers in (1)(a)(ii) above (Name No. 489) ;
- (b) *conradi* Castelnau, 1843, as published in the combination *Acantholoma* [sic] *conradi*, as suppressed under the Plenary Powers in (1)(a)(iii) above (Name No. 490) ;
- (c) *tuberculatus* Conrad, 1840, as published in the combination *Acidaspis tuberculatus*, as suppressed under the Plenary Powers in (1)(b) above (Name No. 491).

(6) 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 No. 236 :—

ACANTHALOMINAE Prantl & Příbyl, 1949 (type genus : *Acantholoma* Conrad, 1840) (invalid under *Declaration 20* because name of type genus suppressed under the Plenary Powers in (1)(a)(i) above) (Name No. 236).

## I. THE STATEMENT OF THE CASE

On 1st March 1955, Dr. H. B. Whittington (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*) submitted to the International Commission on Zoological Nomenclature an

application having as its principal purpose the suppression under the Plenary Powers of the generic name *Acanthaloma* Conrad, 1840, and the consequent protection of the generic name *Leonaspis* Richter (R.) & Richter (E.), 1917 (Class Trilobita). Later Dr. Whittington revised this application in certain respects. The application in its revised form which was submitted to the Commission on 28th November 1955, was as follows :—

**Proposed use of the Plenary Powers to suppress certain “nomina dubia” and thus to validate the specific name “tuberculatus” as used in the combination “Acidaspis tuberculatus” Hall (J.W.) in 1859 and, by suppressing the generic name “Acanthaloma” Conrad, 1840, to provide an assured basis for the generic name “Leonaspis” Richter (R.) & Richter (E.), 1917 (Class Trilobita)**

By H. B. WHITTINGTON

(*Museum of Comparative Zoology at Harvard College,  
Cambridge, Massachusetts, U.S.A.*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers for the twofold purpose (a) of validating the specific name *tuberculatus* as used in the combination *Acidaspis tuberculatus* by Hall (J.W.) in 1859, and (b) to provide an assured basis for the use of the generic name *Leonaspis* Richter (R.) and Richter (E.), 1917 (Class Trilobita). The circumstances of this case are set out in the following paragraphs.

2. The generic name *Acanthaloma* Conrad, 1840 (: 205) was proposed for a new species of trilobite, the specimen of which consisted of that portion of the exoskeleton called the free cheek. No name was proposed for the species concerned. The description given by Conrad was as follows :—

This is a fragment apparently of the buckler of a most singular species ; it is elongated into a curved spine and has a row of spines along the front, and three spines on the opposite side of the prolongation. Not uncommon in the shaly limestone near Clarksville.

3. In the same paper (1840 : 205) Conrad proposed the new name *Acidaspis tuberculatus* for the cephalon of a trilobite from the same locality, and gave a description. It may be that this cephalon is a part of the same species as that described as *Acanthaloma*, but one cannot be sure, since the whereabouts of neither of Conrad's specimens is known.

4. In discussing fossils from New York State, Conrad (1841 : 31) listed *Acantholoma*, and on a later page (1841 : 39) *Acidaspis tuberculatus* and *Acantholoma spinosa* (new name), but without descriptions or reference to his earlier report. It is to be noted that the spelling "*Acantholoma*" is used, rather than "*Acanthaloma*". This variant, an Erroneous Subsequent Spelling, possesses no status in nomenclature under the decisions taken by the Copenhagen Congress (1953, *Copenhagen Decisions zool. Nomencl.* : 45, Decision 73).

5. Castelnau (1843 : 23) proposed the name *Acantholoma* [sic] *conradi*, giving a reference to Conrad (1840 : 205) and a French translation of that author's description and mentioning the locality, but giving no figure.

6. R. and E. Richter (1952), in a review of this case, have claimed that Conrad's names of 1840 and 1841 have no validity, and that therefore Castelnau's proposal, though legitimate, has no validity either. It appears however, from a decision taken by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 160, 346) that a name published in the way in which Conrad published the name *Acanthaloma* is available and that its type species is the first species placed in that genus by a subsequent author.

7. Hall (1859 : 368—370 ; 1861, Pl. 79, figs. 1—14), unaware of Castelnau's work, described *Acidaspis tuberculatus*, and placed in the synonymy of this species *Acidaspis tuberculatus* Conrad, 1840, *Acantholoma* [sic] Conrad, 1840, and *Acantholoma spinosa* Conrad, 1841. The specimens on which Hall based his description are preserved in the New York State Museum, together with additional material, all of which comes from the lower Devonian limestones in or near Clarksville. A re-description of this material is in press (Whittington, 1956).<sup>1</sup>

8. Names published for nominal species without adequate description are a serious danger to stability in nomenclature and this danger is greatly increased when none of the type material is extant. It is very desirable therefore that *nomina dubia* of this kind should be deprived of their power of causing harm by being suppressed by the Commission under its Plenary Powers. In the present case these considerations apply to the following names, all of which may apply—though there can never be any certainty of this—to the species fully described by Hall in 1859 under the name *Acidaspis tuberculatus* :—(1) *tuberculatus* Conrad, 1840, as published in the combination *Acidaspis tuberculatus* ; (2) *spinosa* Conrad, 1841, as published in the combination *Acantholoma spinosa* ; (3) *conradi* Castelnau, 1843, as published in the combination *Acantholoma conradi*. All these names should, I recommend, be suppressed by the Commission under its Plenary Powers. The first should be suppressed for the purposes both of the Law of Priority and of the Law of Homonymy, thus clearing the way for the validation

<sup>1</sup> The paper here referred to was published in May 1956 (*J. Paleont.* 30 : 504—528).

by the Commission of the name *tuberculatus* as used by Hall in 1859 in the combination *Acidaspis tuberculatus*. The second and third of the names recommended for suppression should be suppressed for the purposes of the Law of Priority only, thus preventing any valid subsequent use of these names in the genus concerned.

9. As indicated in paragraph 7 above, Hall did not use Conrad's generic name, and it has not been used subsequently—i.e. for about 100 years—by authors who have treated of this family. In 1917 (*Centralbl. Min. Geol. Pal.* 1917 : 465) R. and E. Richter proposed the name *Leonaspis* as the name for a subgenus of *Acidaspis* Murchison. This name has been used subsequently for the species-group to which *A. tuberculatus* Hall, 1859 belongs.

10. In 1949 (: 38, 151) Prantl and Příbyl proposed that the name *Acanthaloma* Conrad, 1840, be brought back into use for a genus of trilobites. R. and E. Richter (1952) claim that this revival would not promote stability in nomenclature, in that it would supersede the name *Leonaspis* that has been in use for 38 years. I am in agreement with this view.

11. Neither the genus *Leonaspis* Richter (R.) & Richter (E.), 1917, nor the genus *Acanthaloma* Conrad, 1840, is generally regarded as the type genus of a taxon of the family-group. The second of these genera has, however, been taken as the base for a subfamily name ACANTHALOMINAE by Prantl & Příbyl (1949, *Rozpr. Stát. Geol. Úst. Československé Rep.* 12 : 18, 35, 133, 151). Since the object of the present application is to secure the suppression of the name *Acanthaloma* Conrad under the Plenary Powers, it follows that similar action is desired in relation to the above family-group name. Since that suppression would follow automatically upon the suppression of the generic name upon which it is based all that is required is that the former name should be placed upon the *Official Index of Rejected and Invalid Family-Group Names in Zoology*. I accordingly ask that this action should be taken by the International Commission.

12. In the light of the foregoing, I ask the International Commission on Zoological Nomenclature :—

(1) to 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) *Acanthaloma* Conrad, 1840 ;

(ii) *spinosa* Conrad, 1841, as published in the combination *Acanthaloma spinosa* ;

(iii) *conradi* Castelnau, 1843, as published in the combination *Acanthaloma conradi* ;

- (b) to suppress the under-mentioned name for the purposes both of the Law of Priority and of the Law of Homonymy :—*tuberculatus* Conrad, 1840, as published in the combination *Acidaspis tuberculatus* ;
- (c) to direct that the binomen *Acidaspis tuberculatus*, as published by Hall (J.W.) in 1859 (*Geol. Survey New York*, Pal. 3 : 368—370) be treated as being a scientific name (binominal combination) then published for the first time and to validate the above name as so published ;
- (2) to place the under-mentioned generic name on the *Official List of Generic Names in Zoology* :—*Leonaspis* Richter (R.) & Richter (E.), 1917 (gender : feminine) (type species, by original designation : *Odontopleura leonhardi* Barrande, 1846) ;
- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
- (a) *leonhardi* Barrande, 1846, as published in the combination *Odontopleura leonhardi* (specific name of type species of *Leonaspis* Richter (R.) & Richter (E.), 1917) ;
- (b) *tuberculatus* Hall, 1859, as published in the combination *Acidaspis tuberculatus*, as validated under the Plenary Powers under (1)(c) above ;
- (4) to place the under-mentioned generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—
- (a) *Acanthaloma* Conrad, 1840, as suppressed under the Plenary Powers under (1)(a)(i) above ;
- (b) The under-mentioned Erroneous Subsequent Spellings for *Acanthaloma* Conrad, 1840 :—
- (i) *Acantholoma* Conrad, 1841 ;
- (ii) *Acantholoma* Castelnau, 1843 ;
- (5) to place the under-mentioned specific names on the *Official Index of Rejected and Invalid Specific Names in Zoology* :—
- (a) The names specified in (1)(a)(ii) and (1)(a)(iii) above respectively, as there suppressed under the Plenary Powers ;
- (b) *tuberculatus* Conrad, 1840, as published in the combination *Acidaspis tuberculatus*, as suppressed under the Plenary Powers under (1)(b) above.

- (6) to place the under-mentioned family group name on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*:—*ACANTHALOMINAE* Prantl & Přibyl, 1949 (type genus : *Acanthaloma* Conrad, 1840, a name proposed under (1)(a)(i) above to be suppressed under the Plenary Powers).

### References

- Castelnau, F. de, 1843. *Essai sur le Système Silurien de l'Amérique septentrionale*. Paris : 1—56, pls. 1—27.
- Conrad, T. A., 1840. *Third Annual Report, Palaeontological Department, Geological Survey of New York, Albany ; Assembly No. 50 : 199—207.*
- 1841. *Fifth Annual Report, Palaeontology of the State of New York, Albany ; Assembly No. 150 : 25—57.*
- Hall, J. W., 1859—61. *Geological Survey of New York. Palaeontology : vol. III. Albany : 1—532 (1859), pls. 1—120 (1861).*
- Prantl, F., and Přibyl, A., 1949. *Studie o Trilobitech Nadčeledi Odontopleuracea Nov. Superfam. Rozpravy Stát. Geol. Ust. Československé Rep., Praha 12 : 1—221 (Czech and English texts), pls. 1—11.*
- Richter, R. and E., 1952. *Die Typen von Proetus tenuimargo und Leonaspis aries. Senckenbergiana 33 : 109—114.*
- Whittington, H. B., 1956. "Type and Other Species of Odontopleuridae (Trilobita)." *J. Paleontol.* **30** (*in press*).<sup>2</sup>

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt of Dr. Whittington's application the question of the suppression of the generic name *Acanthaloma* Conrad, 1840 (Class Trilobita) was allotted the Registered Number Z.N.(S.) 998.

**3. Support received from C. J. Stubblefield (Geological Survey & Museum, London) prior to publication :** On 28th November 1955,

<sup>2</sup> See footnote 1.



Dr. C. J. Stubblefield (*Geological Survey & Museum, London*) addressed to the Office of the Commission the following letter of support for Dr. Whittington's proposals :—

I gladly support this application since I share the views of H. B. Whittington and R. & E. Richter that the revival of *Acanthaloma* will serve no useful purpose, nor will it promote stability in nomenclature.

**4. Publication of the present application :** On 30th November 1955 Dr. Whittington's application and Dr. Stubblefield's note of support were sent to the printer and were published on 9th June 1956 in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (Whittington, 1956, *Bull. zool. Nomencl.* **12** : 22—26 ; Stubblefield, 1956, *ibid.* **12** : 26).

**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 9th June 1956 (a) in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Whittington's application was published) and (b) to the other prescribed serial publications. In addition, such Notice was given to four general zoological serial publications and to three palaeontological serials in Europe and America.

**6. Support received after publication of the present application :** Subsequent to the publication of the present application notes of support for the action proposed were received from two specialists, of whom one was resident in the U.S.A. and the other in Denmark. The communications so received are reproduced in the immediately following paragraphs.

**7. Support received from Alan B. Shaw (Shell Oil Company, Denver, Colorado, U.S.A.) :** On 23rd October 1956, Mr. Alan B. Shaw (*Shell Oil Company, Denver, Colorado, U.S.A.*) addressed

the following letter to the Office of the Commission in support of the present case (Shaw, 1956, *Bull. zool. Nomencl.* **12** : 320) :—

I have just received a separate on the proposed use of the Plenary Powers regarding *Acidaspis tuberculatus*, *Acanthaloma* Conrad, 1840, and other names.

I reviewed this situation myself in 1947 and have reached the same conclusions as those presented by Dr. Whittington. I therefore urge that the Commission use the Plenary Powers to take the action requested in paragraph 12 of the above-cited Reference.

**8. Support received from Christian Poulsen (Universitetets Mineralogisk-Geologiske Institut, Copenhagen) :** On 1st November 1956 Professor Christian Poulsen (*Universitetets Mineralogisk-Institut, Copenhagen*) sent the following note of support to the Office of the Commission (Poulsen, 1956, *Bull. zool. Nomencl.* **12** : 320) :—

This letter is sent in order to inform the ICZN that I accept the lines of argument put forward by Dr. H. B. Whittington in his application concerning validation of the specific name *tuberculatus* as used in the combination *Acidaspis tuberculatus* Hall (J.W.) in 1859 and suppression of the generic name *Acanthaloma* Conrad, 1840 (Class Trilobita) and that I highly recommend the actions proposed in connection with this matter.

**9. No Objection Received :** No objection to the action proposed in the present case was received from any source.

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

**10. Issue of Voting Paper V.P.(57)4 :** On 22nd January 1957 a Voting Paper (V.P.(57)4) was issued in which the Members of the Commission were invited to vote either for, or against, "the proposal relating to the specific name *tuberculatus* Hall (J.W.),

1859, as used in the combination *Acidaspis tuberculatus*, as set out in Points (1) to (6) in paragraph 12 on pages 24 and 25 of Volume 12 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 *Opinion*].

**11. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 22nd April 1957.

**12. Particulars of the Voting on Voting Paper V.P.(57)4 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)4 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) :*

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

(b) *Negative Votes :*

None ;

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

Bradley (J.C.) ;

(d) *Prevented from voting by interruption of postal communications consequent upon political disturbances, one (1) :*

Hankó ;

(c) *Voting Papers not returned* :

None.

**13. Declaration of Result of Vote :** On 24th April 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)4, 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. Preparation of the Ruling given in the present "Opinion" :** On 14th September 1957, 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.(57)4.

**15. Original Reference for the specific name "tuberculatus" as now validated in the combination "Acidaspis tuberculatus" as from Hall (1859) :** The following is the reference as from which the specific name *tuberculatus* has been validated under the Plenary Powers in the combination *Acidaspis tuberculatus* as from Hall (1859) by the Ruling given in the present *Opinion* :

*tuberculatus*, *Acidaspis*, Hall (J.W.), 1859, *Geol. Surv. New York*, Pal. 3 : 368—370

**16. Other Original References :** The following are the original references for the generic names and specific names placed on *Official Lists* and *Official Indexes* by the Ruling given in the present *Opinion*, other than the reference for the specific name

*tuberculatus* Hall, 1859, as published in the combination *Acidaspis tuberculatus*, which has been specified in paragraph 15 above :—

*Acanthaloma* Conrad, 1840, *Third Ann. Rep. pal. Dep. geol. Surv. New York*, Assembly No. 50 : 205

*Acantholoma* [sic] Conrad, 1841, *Fifth Ann. Rep. Pal. State New York*, Assembly No. 150 : 31

*Acantholoma* [sic], Castelnau, 1843, *Essai Syst. silur. Amér. sept.* : 23

*conradi*, *Acantholoma* [sic], Castelnau, 1843, *Essai Syst. silur. Amér. sept.* : 23

*leonhardi*, *Odontopleura*, Barrande, 1846, *Notice prélim. Syst. silur. Trilobites Bohême* : 58

*Leonaspis* Richter (R.) & Richter (E.), 1917, *Centralbl. Min. Geol. Palaeont.* **1917** : 465

*spinosa*, *Acantholoma* [sic], Conrad, 1841, *Fifth Ann. Rep. Pal. State New York*, Assembly No. 150 : 31

*tuberculatus*, *Acidaspis*, Conrad, 1840, *Third Ann. Rep. pal. Dep. geol. Surv. New York*, Assembly No. 50 : 205

17. The following is the original reference for the family-group name placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* by the Ruling given in the present *Opinion* :—

ACANTHALOMINAE Prantl & Přibyl, 1949, *Rozpr. Stát. Geol. Úst. Československé Rep.* **12** : 18, 35, 133, 151

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 Ninety-Eight (498) of the International Commission on Zoological Nomenclature.

DONE in London, this Fourteenth day of September, 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

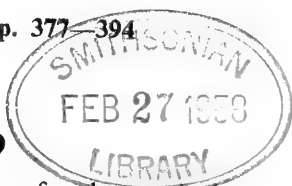
*Edited by*

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

VOLUME 17. Part 21. Pp. 377-394

## OPINION 499

Designation under the Plenary Powers for the nominal genus *Protopeltura* Brögger, 1882, of a type species in harmony with accustomed usage and validation under the same Powers of the emendation to *Peltura* of the generic name *Peltoura* Milne Edwards (H.), 1840 (Class Trilobita)



LONDON :

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1958

**Price Twelve Shillings**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 499

### 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 (*University of Tulane, Department of Geology, New Orleans, Louisiana, 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 499

DESIGNATION UNDER THE PLENARY POWERS FOR THE  
NOMINAL GENUS "PROTOPELTURA" BRÖGGER,  
1882, OF A TYPE SPECIES IN HARMONY WITH  
ACCUSTOMED USAGE AND VALIDATION  
UNDER THE SAME POWERS OF THE  
EMENDATION TO "PELTURA" OF THE  
GENERIC NAME "PELTOURA" MILNE  
EDWARDS (H.), 1840 (CLASS  
TRILOBITA)

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

- (a) All designations, indications and selections of type species for the genus *Protopeltura* Brögger, 1882 (Class Trilobita) made prior to the present Ruling are hereby set aside and the nominal species *Peltura praecursor* Westergaard, 1909, is hereby designated to be the type species of the above genus.
- (b) The emendation to *Peltura* of the generic name *Peltoura* Milne Edwards (H.), 1840 (Class Trilobita), is hereby validated.

(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) *Protopeltura* Brögger, 1882 (gender : feminine) (type species, by designation under the Plenary Powers in (1)(a) above : *Peltura praecursor* Westergaard, 1909) (Name No. 1242) ;
- (b) *Peltura* (emend. under the Plenary Powers in (1)(b) above of *Peltoura*) Milne Edwards (H.), 1840 (gender : feminine) (type species by selection by Corda (A.J.C.) (1847) : *Entomostracites scarabaeoides* Wahlenberg, [1821]) (Name No. 1243).

(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) *praecursor* Westergaard, 1909, as published in the combination *Peltura praecursor* (specific name of type species of *Protopeltura* Brögger, 1882) (Name No. 1468) ;
- (b) *acanthurus* Angelin, 1854, as published in the combination *Olenus? acanthurus* (Name No. 1469) ;
- (c) *scarabaeoides* Wahlenberg, [1821], as published in the combination *Entomostracites scarabaeoides* (specific name of type species of *Peltura* (emend. of *Peltoura*) Milne Edwards (H.), 1840) (Name No. 1470) ;
- (d) *bucklandii* Milne Edwards (H.), 1840, as published in the combination *Peltura* [*sic*] *bucklandii* (Name No. 1471).

(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. 1096 :—

*Peltoura* Milne Edwards (H.), 1840 (an Invalid Original Spelling for *Peltura*, spelling validated under the Plenary Powers in (1)(b) 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. 205 :—

PELTURINAE (correction of PELTURIDES) Corda (A.J.C.), 1847 (type genus : *Peltura* (emend. of *Peltoura*) Milne Edwards (H.), 1840).

(6) 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 No. 237:—

PELTURIDES Corda (A.J.C.), 1847 (an Invalid Original Spelling for PELTURINAE).

## I. THE STATEMENT OF THE CASE

On 13th October 1955, Dr. Gunnar Henningsmoen (*Paleontologisk Museum, Universitet i Oslo, Norway*) submitted to the International Commission on Zoological Nomenclature the following application for the use of the Plenary Powers for the designation for the genus *Protopeltura* Brögger, 1882 (Class Trilobita) of a type species in harmony with accustomed usage:—

**Proposed use of the Plenary Powers to designate a type species in harmony with accustomed usage for the genus "Protopeltura" Brögger, 1882 (Class Trilobita), a genus based upon a misidentified type species**

By GUNNAR HENNINGSMOEN

(*Paleontologisk Museum, Universitetet i Oslo, Norway*)

The object of the present application is to ask the International Commission on Zoological Nomenclature to use its Plenary Powers to designate a type species in harmony with accustomed usage for the genus *Protopeltura* Brögger, 1882 (Class Trilobita) in order to avoid the confusion which would result from the application of the normal provisions of the *Règles*. *Protopeltura* Brögger is a genus based upon a misidentified type species and the Commission is asked to deal with this name under the special procedure prescribed for cases of this kind by the Thirteenth International Congress of Zoology, Paris, 1948 (1950, *Bull. zool. Nomencl.* 4 : 158—159), as modified in certain minor respects by the Fourteenth International Congress of Zoology, Copenhagen, 1953 (1953, *Copenhagen Decisions zool. Nomencl.* : 68, Decision 128). The facts of the present case are set out briefly below.

2. *Protopeltura* was erected by Brögger in 1882 (: 105) as a subgenus of *Peltoura* Milne Edwards, 1840. This subgenus was based by Brögger on Norwegian material which he misidentified with the nominal species *Olenus ? acanthurus* Angelin, 1854 (: 44). This was the only nominal species cited by Brögger as belonging to *Protopeltura*.

3. Moberg & Möller (1898 : 265) were the first to point out that Brögger's material did not belong to the *Olenus ? acanthurus* of Angelin and that Angelin's species was referable to the genus *Parabolina* Salter, 1849.

4. In 1909 (: 48) Westergaard gave the name *Peltura praecursor* to the species which Brögger had misidentified as *Olenus ? acanthurus* Angelin. At this time Westergaard considered *Protopeltura* Brögger to be a synonym of *Peltoura* Milne Edwards. Later (1922 : 168) Westergaard accepted *Protopeltura* as a distinct genus with *Peltura praecursor* Westergaard as type species. This arrangement has been accepted by later workers and is now the general practice. At the present time several other species are regarded as belonging to *Protopeltura* Brögger.

5. In order to avoid the unnecessary and pointless name-changing which would result if the normal provisions of the *Règles* were to be applied in the present case and if in consequence it were necessary to sink the name *Protopeltura* Brögger, 1882, as a junior subjective synonym of *Parabolina* Salter, 1849, I now ask the International Commission on Zoological Nomenclature :—

- (1) under the procedure prescribed by the Thirteenth International Congress of Zoology, Paris, 1948, for determining the type species of a genus based upon a misidentified type species, (a) to use its Plenary Powers to set aside all designations, indications or selections of a type species of *Protopeltura* Brögger, 1882, made prior to the Ruling now asked for, and (b), having done so, to designate *Peltura praecursor* Westergaard, 1909, to be the type species of the above genus ;
- (2) to place the under-mentioned generic name on the *Official List of Generic Names in Zoology* :—*Protopeltura* Brögger, 1882 (gender : feminine) (type species, by designation under the Plenary Powers under (1)(b) above : *Peltura praecursor* Westergaard, 1909) ;
- (3) to place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—
  - (a) *acanthurus* Angelin, 1854, as published in the combination *Olenus ? acanthurus* ;

- (b) *praecursor* Westergaard, 1909, as published in the combination *Peltura praecursor* (specific name of *Protopeltura* Brögger, 1882, by designation under the Plenary Powers as proposed in (1) above).

### References

- Angelin, N. P., 1854. *Palaeontologia Scandinavica*. P. I. Crustacea Formationis Transitionis. Lipsiae (Lundae).
- Brögger, W. C., 1882. Die Silurischen Etagen 2 und 3 im Kristiania-gebiet und auf Eker. Universitätsprogramm für 2. Sem. 1882. Kristiania.
- Moberg, J. C. & Möller H., 1898. Om Acerocarezonen. *Geol. Fören. Förhandl.*, 20 Stockholm.
- Salter, J. W., 1849. Figures and Descriptions illustrative of British Organic Remains. Dec. 2. *Mem. Geol. Surv.* U.K. London.
- Westergaard, A. H., 1909. Studier öfver Dictyograptusskiffern och dess gränslager. *Lunds Univ. Arsskr.* (n.s.) (Afd. 2) 5 (No. 3) Lund.
- , 1922. Sveriges Olenidskiffer. *Sveriges geol. unders.*, Ser. Ca, no. 18. Stockholm.

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application :** Upon the receipt of Dr. Henningsmoen's application the question of the designation of a type species in harmony with accustomed usage for the genus *Protopeltura* Brögger, 1882 (Class Trilobita) was allotted the Registered Number Z.N.(S.) 1034.

**3. Publication of the present application :** The present application was sent to the printer on 30th November 1955 and was published on 9th June 1956 in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (Henningsmoen, 1956, *Bull. zool. Nomencl.* 12 : 31—32).

**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 9th June 1956 (a) in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Henningsmoen's application was published) and (b) to the other prescribed serial publications. In addition such Notice was given to four general zoological serial publications and to three palaeontological serials in Europe and America.

**5. Support received :** The publication of the present application and the issue of the Public Notices specified in paragraph 4 above elicited notes of support from two specialists C. J. Stubblefield (*London*) and H. B. Whittington (*Cambridge, Mass.*). Dr. Whittington's communication is reproduced in paragraph 6 below. The communication received from Dr. Stubblefield in which was put forward a supplementary application for the validation of the emendation to *Peltura* of the generic name *Peltoura* Milne Edwards (H.), 1840, is reproduced in paragraph 7 below.

**6. Support received from H. B. Whittington (Museum of Comparative Zoology at Harvard College, Cambridge, Mass., U.S.A.) :** On 30th July 1956, Dr. H. B. Whittington (*Museum of Comparative Zoology at Harvard College, Cambridge, Mass., U.S.A.*) addressed a letter to the Office of the Commission in support of several cases recently published in the *Bulletin of Zoological Nomenclature*. His remarks concerning the present application are as follows (Whittington, 1956, *Bull. zool. Nomencl.* **12** : 253) :—

I write to express my support for the following proposals :—*Protopeltura* . . . .

I believe the action suggested in each case will be welcome and will promote stability in nomenclature.

7. Support for the present application and submission of a supplementary application for the emendation to "Peltura" of the generic name "Peltoura" Milne Edwards (H.), 1840, received from C. J. Stubblefield (Geological Survey and Museum, London) : On 20th June 1956, Dr. C. J. Stubblefield (*Geological Survey and Museum, London*) submitted to the International Commission the following note in which, after supporting the application submitted by Dr. Henningsmoen, he proceeded to submit a supplementary application for the validation under the Plenary Powers of the emendation to *Peltura* of the generic name *Peltoura* Milne Edwards (H.), 1840 :—

Support for Gunnar Henningsmoen's proposal to designate a type species in harmony with accustomed usage for the genus "Protopeltura" Brögger, 1882 and request for the validation under the Plenary Powers of the emendation to "Peltura" of "Peltoura" Milne Edwards (H.), 1840 (Class Trilobita)

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

(*Geological Survey and Museum, London*)

Whilst supporting the case proposed by Cand. Real. G. Henningsmoen, I consider that the opportunity ought also to be utilized so that the International Commission on Zoological Nomenclature be requested to exercise its Plenary Powers for the purpose of validating, on grounds of over a hundred years' universal usage, the familiar spelling-emendation of the generic name *Peltoura* Milne Edwards (H.), 1840, to *Peltura* first made by Burmeister (H.), 1843 (*Die Organisation der Trilobiten*, Berlin : 83). It is admittedly not clear whether Burmeister's 1843 emendation was deliberate or a misprint. Corda (A.J.C.), however, in 1847 (*in* Hawle, I. and Corda, A.J.C., *Prodrom einer Monographie der böhmischen Trilobiten* : 127), unlike Burmeister, recognised the genus as valid and spelt its name in the form *Peltura* ; he selected as the type species *Paradoxides* [recte *Entomostracites*] *scarabaeoides* Milne Edwards [recte Wahlenberg, 1821] and gave a new illustration.

2. The genus *Peltoura* was described by Milne Edwards (H.) in 1840 (*Hist. nat. Crustacés . . . 3* : 344) as being based on two species *Entomostracites scarabaeoides* Wahlenberg [1821] ("Petrificata Telluris Svecanae . . .," *Nova Acta Soc. Sci. upsal.* 8 : 41) and *Peltoura bucklandii* Milne Edwards. The latter species, *P. bucklandii*, was removed from the genus *Peltura* on taxonomic grounds. For the sake of completeness

it is desirable however that the specific name *bucklandii* Milne Edwards should now be placed on the *Official List*.

3. It is consistent practice among trilobite workers to refer the generic name *Peltura* to Milne Edwards. Stability in spelling is desirable not only for palaeontological use but also for stratigraphy, for the name *Peltura* is used by stratigraphers for zonal index fossils of the Upper Cambrian in north-west Europe and eastern Canada.

4. I accordingly ask that, when it deals with Dr. Henningsmoen's application, the International Commission on Zoological Nomenclature should :—

- (1) use its Plenary Powers to validate the emendation by Burmeister (H.) (1843) to *Peltura* of the generic name *Peltoura* Milne Edwards (H.), 1840 ;
- (2) place the under-mentioned generic name on the *Official List of Generic Names in Zoology* :—  
*Peltura* (emend. under the Plenary Powers under (1) above of *Peltoura*) Milne Edwards (H.), 1840 (gender : feminine) (type species, by selection by Corda (A.J.C.) (1847) : *Entomostracites scarabaeoides* Wahlenberg, [1821]) ;
- (3) place the under-mentioned specific names on the *Official List of Specific Names in Zoology* :—  
 (a) *scarabaeoides* Wahlenberg, [1821], as published in the combination *Entomostracites scarabaeoides* (specific name of type species of *Peltura* (emend. of *Peltoura*) Milne Edwards (H.), 1840) ;  
 (b) *bucklandii* Milne Edwards (H.), 1840, as published in the combination *Peltura* (emend. of *Peltoura*) *bucklandii* ;
- (4) place the under-mentioned generic name on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—*Peltoura* Milne Edwards (H.), 1840 (an Invalid Original Spelling for *Peltura*, a spelling validated under the Plenary Powers under (1) above).

**8. Publication of C. J. Stubblefield's application for the validation of the emendation to "Peltura" of the generic name "Peltoura" Milne Edwards (H.), 1840 :** Dr. Stubblefield's supplementary application for the validation under the Plenary Powers of the emendation to *Peltura* of the generic name *Peltoura* Milne



Edwards (H.), 1840, was published on 28th September 1956 (Stubblefield, 1956, *Bull. zool. Nomencl.* **12** : 252—253).

**9. Issue of Public Notices relating to the Supplementary Application submitted by C. J. Stubblefield (London) :** 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 supplementary application was given on 28th September 1956 (a) in Part 9 of Volume 12 of the *Bulletin of Zoological Nomenclature* (the Part in which Dr. Stubblefield's supplementary application was published) and (b) to the other prescribed serial publications. In addition such Notice was given to four general zoological serial publications and to three palaeontological serials in Europe and America.

**10. Support received from Christian Poulsen (Copenhagen) (i) for Gunnar Henningsmoen's original application and (ii) for the Supplementary Application submitted by C. J. Stubblefield :** Letters of support were received in the Office of the Commission from Professor Christian Poulsen (*Universitetets Mineralogisk-Geologiske Institut, Mineralogisk Museum, Copenhagen*) both for Dr. Henningsmoen's original application (letter 5th October 1956) and for Dr. Stubblefield's Supplementary Application (letter dated 30th October 1956). The communications so received were as follows (Poulsen, 1956, *Bull. zool. Nomencl.* **12** : 319):—

**(a) Letter dated 5th October 1956**

I heartily support the application made by Dr. G. Henningsmoen regarding designation of a type species for *Protopeltura* Brögger, 1882 (Class Trilobita), and I highly recommend the procedure proposed in connection with this application.

**(b) Letter dated 30th October 1956**

This letter is written in order to inform the International Commission that I fully support Dr. C. J. Stubblefield's request for the validation

under the Plenary Powers of the emendation to *Peltura* of *Peltoura* Milne Edwards (H.), 1840 (Class Trilobita), and that I highly recommend the other actions proposed in connection with this matter.

**11. Support for C. J. Stubblefield's Supplementary Application received from R. Tripp (Glasgow) :** On 16th December 1956, Mr. R. Tripp (*Glasgow*) sent the following note to the Office of the Commission in support of Dr. Stubblefield's supplementary application in the present case (Tripp, 1957, *Bull. zool. Nomencl.* **13** : 72) :—

I strongly support Dr. Stubblefield's request that the specific name *bucklandii* Milne Edwards should be placed on the *Official List of Specific Names in Zoology*, despite the fact that McCoy, F., rejected *P. bucklandii* in 1851 (*Systematic description of the British Palaeozoic fossils in the Geological Museum of the University of Cambridge*, Fasc. 1 : 151) as a name "given to an unintelligible figure, without description of any of the essential parts", a view followed by subsequent authors. In my opinion, however, Milne Edwards's description and illustration are adequate to define the species.

**12. No Objection Received :** No objection to the action recommended respectively by Dr. Henningsmoen and by Dr. Stubblefield in the present case was received from any source.

**13. Extension of the Prescribed Waiting Period in respect of the application in regard to the generic name "Protopeltura" Brögger, 1882, submitted by Gunnar Henningsmoen :** At the close on 9th December 1956 of the period of six months following the publication in Part 1 of Volume 12 of the *Bulletin of Zoological Nomenclature* of the application in regard to the generic name *Peltopeltura* Brögger, 1882, submitted by Dr. Gunnar Henningsmoen, Mr. Hemming, as Secretary, executed a Minute extending the Prescribed Waiting Period in respect of the foregoing application to 28th March 1957, thus securing that the said Period and that in respect of the supplementary application in regard to the proposed validation of the emendation to *Peltura* of the generic name *Peltoura* Milne Edwards (H.), 1840, submitted by Dr. C. J. Stubblefield should terminate on the same day. The adoption

of this procedure made it possible for both the original application and the supplementary application to be submitted to the Commission simultaneously for decision.

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

**14. Issue of Voting Paper V.P.(57)32 :** On 4th April 1957 a Voting Paper (V.P.(57)32) was issued in which the Members of the Commission were invited to vote either for, or against, " the proposal relating to names *Protopeltura* Brögger, 1882, and *Peltura* Milne Edwards (H.), 1840 (Class Trilobita) as set out in Points (1) to (3) in paragraph 5 on page 32 of Volume 12 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 *Opinion*] and as supplemented in Points (1) to (4) in paragraph 4 on page 253 of the same volume " [i.e. in the paragraph numbered as above in the paper reproduced in paragraph 7 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 4th July, 1957.

**16. Particulars of the Voting on Voting Paper V.P.(57)32 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)32 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) :*

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

(b) *Negative Votes* :

None ;

(c) *Voting Papers not returned* :

None.

**17. Declaration of Result of Vote :** On 5th July 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)32, 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. Family-Group-Name Problems Involved :** On 24th September 1957, Mr. Hemming as Secretary executed the following Minute giving directions as to the action to be taken in regard to the family-group-name problems involved in the present case, a matter which through some inadvertence had not been dealt with either in the application submitted by Dr. Henningsmoen and/or in the supplementary application submitted by Dr. Stubblefield :—

**Family-group-name implications arising in connection with the  
generic names "Protopeltura" Brögger, 1882, and  
"Peltura" Milne Edwards (H.), 1840  
(Class Trilobita)**

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

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

When recently I re-examined the documentation associated with Dr. G. Henningsmoen's application regarding the generic name *Protopeltura* Brögger, 1882 (Class Trilobita) and the supplementary application for the acceptance of the emendation to *Peltura* of the

generic name *Peltoura* Milne Edwards (H.), 1840 subsequently submitted by Dr. C. J. Stubblefield, I found to my regret that the family-group-name implications arising in connection with the above generic names had been overlooked when the foregoing proposals were originally under consideration.

2. In view of the fact that the foregoing is a matter which under the "Completeness-of-Opinions" Rule must be dealt with in the Ruling to be given in the *Opinion* embodying the decisions in regard to the above applications taken by the Commission in its vote on Voting Paper V.P.(57)32, I immediately applied for information and advice to Dr. C. J. Stubblefield, one of the applicants in the present case. Dr. Stubblefield's reply is attached to the present Minute as an Annexe. It will be seen from Dr. Stubblefield's letter that the generic name *Peltura* (emend. of *Peltoura*) Milne Edwards (H.), 1840, has been taken as the base for a family-group name, the nominal taxon so recognised being currently treated by specialists as being a sub-family and known accordingly as the PELTURINAE. It will be seen further that the name *Protopeltura* Brögger, 1882, has not been taken as the base for a family-group name, this genus being currently placed in the subfamily PELTURINAE.

3. In the circumstances I now as Secretary hereby direct that in accordance with the Rule specified in paragraph 2 above the following entries be made in the Ruling to be prepared for the purpose of giving effect to the vote taken by the Commission on Voting Paper V.P.(57)32 :—

- (1) the family-group name PELTURINAE (correction of PELTURIDES) Corda (A.J.C.), 1847 (type genus : *Peltura* (emend. of *Peltoura*) Milne Edwards (H.), 1840) be placed on the *Official List of Family-Group Names in Zoology* ;
- (2) the family-group name PELTURIDES Corda (A.J.C.), 1847 (an Invalid Original Spelling for PELTURINAE) be placed on the *Official Index of Rejected and Invalid Family-Group Names in Zoology*.

ANNEXE TO MINUTE EXECUTED BY THE SECRETARY ON  
24TH SEPTEMBER 1957)

**Letter dated 23rd September, 1957 from Dr. C. J. Stubblefield  
(Geological Survey and Museum, London)**

I find that A. J. C. Corda in "Prodrum einer Monographie der Böhmschen Trilobiten" 1847, p. 118, erected a family PELTURIDES. You will recall that the ending -IDES was normally given by Corda for

his family names. Harrington, H. J. and Leanza, A. F., 1952, *Rev. Asoc. Geol. Argentina*, VII, 3, p. 195, erected a subfamily PELTURINAE apparently under the impression that the authorship was theirs. This treatment was repeated by these authors in the " *Ordovician Trilobites of Argentina* ", Kansas, 1957, pp. 61 and 88.

G. Henningsmoen in his monograph " The Trilobite Family Olenidae ", *Norsk. Vidensk.-Akad. Oslo, I. Mat.-Naturv. Kl.* 1957, No. 1, p. 220, correctly ascribed the subfamily PELTURINAE to Corda.

The genus *Protopeltura* has never been the root of a family or subfamily name; the genus in fact is usually assigned to the PELTURINAE.

**19. Preparation of the Ruling given in the present " Opinion " :** On 25th September 1957, 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 by its Vote on Voting Paper V.P.(57)32, subject to the clarification in regard to the family-group-name position specified by the Secretary in the Minute executed on 24th September 1957, the text of which is reproduced in paragraph 18 of the present *Opinion*.

**20. 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* :—

*acanthurus*, *Olenus* ?, Angelin, 1854, *Pal. scand.*, I (Crust. Format. Transit. : 44)

*bucklandii*, *Peltoura*, Milne Edwards (H.), 1840, Roret's Suite à Buffon, *Hist. nat. Crust.* 3 : 345

*Peltoura* Milne Edwards (H.), 1840 (an Invalid Original Spelling for *Peltura*)

*Peltura*<sup>1</sup> (emend. of *Peltoura*) Milne Edwards (H.), 1840, Roret's Suite à Buffon, *Hist. nat. Crust.* 3 : 344

<sup>1</sup> The emendation *Peltura* was published by Burmeister (H.) in 1843 (*Die Organisation der Trilobiten*, Berlin : 83).

*praecursor*, *Peltura*, Westergaard, 1909, Brögger, 1882, *Lunds Univ. Arsskr.* (n.s.) (Afd. 2) **5** (No. 3) : 48

*Protopeltura* Brögger, 1882, Silur. Etagen 2 und 3 Kristianiagebiet u. Eker; Kristiania : 105

*scarabaeoides*, *Entomostracites*, Wahlenberg, [1821], *Nov. Acta Soc. Sci. upsal.* **8** : 41

**21.** The following is the reference for the selection of a type species for nominal genus specified in the Ruling given in the present *Opinion* :—

<p>For <i>Peltura</i> (emend. of <i>Peltoura</i>) Milne Edwards (H.), 1840</p>	<p>Corda (A.J.C.), 1847, in Hawle (I) &amp; Corda (A.J.C.), <i>Prodrom Monogr. böhm. Trilobiten</i> : 127</p>
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**22.** The following are the original references for the family-group names placed on the *Official List* and *Official Index* of the names of nominal taxa belonging to the family-group by the Ruling given in the present *Opinion* :—

PELTURINAE (correction of PELTURIDES) Corda (A.J.C.), 1847, *Prodrom Monogr. böhm. Trilobiten* : 118

PELTURIDES Corda (A.J.C.), 1847 (an Invalid Original Spelling for PELTURINAE)

**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 Ninety-Nine (499) of the International Commission on Zoological Nomenclature.

DONE in London, this Twenty-Fifth day of September, 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

**VOLUME 17. Part 22. Pp. 395—422**



**OPINION 500**

Validation under the Plenary Powers of the spelling  
**PIERIDAE** for the name of the family-group taxon having  
the genus *Pieris* Schrank, 1801 as its type genus (Class  
Insecta, Order Lepidoptera)

**LONDON:**

Printed by Order of the International Trust for  
Zoological Nomenclature  
and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office  
41, Queen's Gate, London, S.W.7  
1958

**Price Eighteen Shillings and Sixpence**

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

## COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 500

### A. The Officers of the Commission

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

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

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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*)

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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, 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 500

### VALIDATION UNDER THE PLENARY POWERS OF THE SPELLING "PIERIDAE" FOR THE NAME OF THE FAMILY-GROUP TAXON HAVING THE GENUS "PIERIS" SCHRANK, 1801 AS ITS TYPE GENUS (CLASS INSECTA, ORDER LEPIDOPTERA)

**RULING** :—(1) Under the Plenary Powers :—

- (a) the spelling PIERIDIDAE for the name of the family-group taxon having the genus *Pieris* Schrank, 1801 (Class Insecta, Order Lepidoptera) as type genus is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (b) the spelling PIERIDAE for the name of the foregoing family-group taxon is hereby validated.

(2) The under-mentioned family-group name is hereby placed on the *Official List of Family-Group Names in Zoology* with the Name No. 206 :—

PIERIDAE (correction of PIERIDES) Duponchel, 1832, as validated under the Plenary Powers in (1)(b) above (type genus : *Pieris* Schrank, 1801)

(3) 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) PIERIDES Duponchel, 1832 (type genus : *Pieris* Schrank, 1801) (an Invalid Original Spelling for PIERIDAE, a name validated under the Plenary Powers in (1)(b) above) (Name No. 238) ;

- (b) PIERIDINA Herrich-Schaeffer, 1853 (type genus : *Pieris* Schrank, 1801) (an Invalid Original Spelling for PIERIDIDAE, a name suppressed under the Plenary Powers in (1)(a) above) (Name No. 239) ;
- (c) PIERIDIDAE Reuter, 1897 (type genus : *Pieris* Schrank, 1801), as suppressed under the Plenary Powers in (1)(a) above (Name No. 240).

## I. THE STATEMENT OF THE CASE

The question of the spelling to be adopted for the family-group name based upon the generic name *Pieris* Schrank, 1801 (Class Insecta, Order Lepidoptera) was brought to the attention of the Office of the International Commission in June 1947 by Dr. Jiří Paclt (*Prague, Czechoslovakia*). At that time, however, the whole question of the rules governing the formation of family-group names was under consideration by the International Congresses of Zoology and in consequence the Commission was not then in a position to deal with the question raised by Dr. Paclt. The position was, however, completely altered when in 1953 the Fourteenth International Congress of Zoology at Copenhagen adopted a comprehensive series of rules for regulating names of the family-group category. In the new situation so created the Secretary formed the opinion that in view of the fact that the problem presented by the spelling to be adopted for the family-group name based on the foregoing generic name, namely the question whether a technically correct but little-used spelling (in this case, the spelling PIERIDIDAE) for a family-group name or a customary and long-established spelling (in this case, the spelling PIERIDAE) should be officially approved was the first of the kind to have been brought before the Commission, it was desirable that exceptional measures should be taken to ascertain the views of interested specialists. Accordingly arrangements were made for the issue on 14th June 1956 of a questionnaire on this subject to a large group of specialists in the Order Lepidoptera.

This enquiry elicited the views of thirty-seven (37) out of the total of forty-five (45) specialists consulted. In the light of the advice so received the Secretary prepared a Report for the consideration of the Commission, setting out the issue involved. To that Report were attached as Appendices the communication submitted by Dr. Paclt in 1947 and the replies received from specialists in response to the questionnaire referred to above. The Secretary's Report, which was completed on 23rd August 1956, was as follows:—

**Proposed use of the Plenary Powers to validate the spelling "Pieridae" as against the spelling "Pierididae" as the family-group name based on the generic name "Pieris" Schrank, 1801 (Class Insecta, Order Lepidoptera)**

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

(Secretary to the International Commission on Zoological Nomenclature)

The purpose of the present application is to ask the International Commission on Zoological Nomenclature to give a Ruling on the question whether the family-group name based on the generic name *Pieris* Schrank, 1801 (Class Insecta, Order Lepidoptera) should (a) by direction under the Plenary Powers be formed as PIERIDAE, the form by far the most commonly employed or (b) be formed as PIERIDIDAE, the spelling which is technically correct.

2. This question was first brought to the attention of the International Commission in June, 1947 by Dr. Jiří Paclt (then of the Národní Museum v Praze, Prague, and now of Bratislava, Czechoslovakia), who advocated the adoption of the spelling PIERIDIDAE. Dr. Paclt's paper is annexed to the present note as Appendix 1.

3. At Paris 1948 the Thirteenth International Congress of Zoology gave directions that the whole question of the provisions in the *Règles* relating to the formation of family-group names should form the subject of consultation with interested specialists with a view to the submission of comprehensive proposals on this subject to the next International Congress when it should meet at Copenhagen in 1953. The decisions taken by that Congress (1953, *Copenhagen Decisions zool. Nomencl.*: 32—37, Decisions 43—58) made possible the further consideration of the present case.

4. By a decision taken in 1948 as part of the settlement of the question of the names for genera of the Sub-Order Rhopalocera cited in Hübner's

*Tentamen*, the generic name *Pieris* Schrank, 1801, was placed on the *Official List of Generic Names in Zoology* as Name No. 704 by the Ruling given in *Opinion 278* (1954, *Ops. Decls. int. Comm. zool. Nomencl.* 6 : 135—178). For this reason also it is desirable that an early decision should be taken by the International Commission as to the form to be adopted for forming the family-group name based upon this generic name.

5. The present is the first case on which the Commission has been asked to take a decision on the question of the form to be adopted for a family-group name where the strictly correct form is not in harmony with general usage. Special consideration was accordingly given to the form of procedure to be adopted in submitting this matter to the Commission. It was decided that in view of the wide interest to lepidopterists of the problem raised in this case exceptional measures should be taken to secure statements from interested specialists of their views as to the action which it was desirable should be taken before the case was published in the *Bulletin*. The advance information so obtained would, it was considered, be of special value in that it would, it was hoped, provide an indication of the spread of opinion among specialists and thus afford a basis on which to prepare proposals for the consideration of the International Commission.

6. As a preliminary to the initiation of the proposed consultation referred to above, it was decided to clear the ground on the issue of fact involved in this case by asking Professor the Rev. L. W. Grensted, Consulting Classical Adviser to the International Commission, to furnish a Report on the question of what under the *Règles* was the correct form of the family-group name based on the generic name *Pieris* Schrank. Professor Grensted's Report, which fully confirmed Dr. Paclt's view that the correct spelling for this family-group name was PIERIDIDAE, was as follows :—

The early generic names of butterflies were largely based on the names of goddesses and nymphs in classical mythology. *Pieris* is probably meant as a singular from "Pieridae", the Muses. It happens also to occur in classical Latin as a personal name, *Pieris*, genitive *Pieridis*. For both reasons the stem is "Pierid-" and the correct family name would be PIERIDIDAE. The Greek name for the Muses, Pierides, confirms this.

7. At this point it may be convenient to summarise briefly as follows the historical background of the present case :—

- (1) The generic name *Pieris* Schrank was first taken as the base for a family-group-name by Duponchel in 1832 (*in* Godart, *Hist. nat. Lép. France* Suppl. 1 : 381. This name was there cited both in French (as "Piérides") and in Latin (as *Pierides*)).

- (2) From Duponchel's time onwards this taxon has been cited under the name PIERINAE or PIERIDAE in all the principal catalogues checklists, standard works and monographs and in the great majority of individual papers.
- (3) In a paper published in 1853 (*Lepid. exot. Spec. nov.* : 54) Herrich-Schäffer employed the term PIERIDINA, a spelling which implies that, if the name had been formed as the name of a family with the approved termination, that name would have been spelled as PIERIDIDAE. This name was actually first so spelled by Reuter in 1897 (*Acta Soc. Sci. fenn.* 22 : 228). It has since been used by a number of authors in individual papers. It has also been used in one important modern work (Nordström, Wahlgren & Tullgren, 1935, *Svenska Fjärilar*). These usages represent, however, only a very small percentage of the combined usage of the spellings PIERIDIDAE and PIERIDAE, the majority of authors having continued to use the shorter form of this name.

8. In the spring of 1956 I prepared a paper to be despatched to interested specialists seeking their views as to the relative acceptability of the two forms which had been used for the family-group name based upon the generic name *Pieris* Schrank. The paper concluded with the following paragraph in which were set out the questions on which advice was sought :—

The question for which answers are now sought are the following :—

- (1) Do you consider that the International Commission should take such action as is necessary to secure that the family name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE, the spelling used therefor by almost all workers both at the present time and throughout the period since the above genus was made the type genus of a family-group taxon ?

or

- (2) Do you consider that the normal rules should be allowed to operate in the present case and therefore that the spelling PIERIDIDAE should be accepted for this family name ?

9. I next invited Mr. N. D. Riley (*British Museum (Natural History), London*) to assist in drawing up the list of specialists to whom copies of the paper referred to above should be sent. The list as finally drawn up contained forty-five names. The specialists so consulted were the following :—

(a) *Europe* :

R. Agenjo (*Madrid*) ; G. Bernardi (*Paris*) ; H. Beuret (*Neuwelt pres Basle*) ; J. A. Bourgogne (*Paris*) ; W. Forster (*Munich*) ;

W. J. Hall (*London*); E. Handschin (*Basle*); F. Hemming (*London*); E. M. Hering (*Berlin*); S. Hoffmeyer (*Aarhus*); N. Knaben (*Oslo*); H. de Lesse (*Paris*); Z. Lorković (*Zagreb*); A. M. Morley (*Folkestone*); M. Opheim (*Oslo*); B. Petersen (*Uppsala*); N. D. Riley (*London*); B. N. Schwanwitsch (*Leningrad*); R. Verity (*Florence*); P. E. L. Viette (*Paris*); B. C. S. Warren (*Folkestone*);

(b) *Asia* :

Hem Singh Pruthi (*Panjab University*); A. Sibatani (*Japan*);

(c) *Africa* :

L. A. Berger (*Belgian Congo*); T. H. B. Jackson (*Kitale, Kenya*); H. K. Munro (*Pretoria*); R. Paulian (*Madagascar*); V. G. L. van Someren (*Nairobi*); G. van Son (*Pretoria*);

(d) *Australia* :

J. A. Nicholson (*Canberra*);

(e) *North America* :

B. P. Beirne (*Ottawa*); F. Martin Brown (*Colorado Springs*); C. F. dos Passos (*Mendham, N.J.*); D. C. Ferguson (*Halifax, N.S.*); W. Field (*Washington, D.C.*); J. G. Franclemont (*Ithaca, N.Y.*); A. B. Klots (*New York City*); J. M<sup>c</sup>Dunnough (*Halifax, N.S.*); E. G. Munroe (*Ottawa*); C. L. Remington (*New Haven, Conn.*); E. C. Zimmerman (*Cambridge, Mass.*);

(f) *Central and South America* :

H. E. Box (*Trinidad*); A. da Costa Lima (*Rio de Janeiro*); R. Ferreira d'Almeida (*Rio de Janeiro*); K. J. Hayward (*Tucumán*).

10. As the result of the consultations so carried out by the Office of the Commission the views of thirty-seven (37) specialists have been obtained. Of these specialists twenty-eight (28) advocated the adoption by the Commission of a decision in favour of the technically incorrect spelling PIERIDAE, and nine (9), including Dr. J. Paclt, by whom (as explained in paragraph 2 above) this question was first placed before the Commission, favoured the application of the normal provisions of the *Règles* and consequently recommended the acceptance of the spelling PIERIDIDAE. Extracts from the communications so received are given in Appendix 2 (support for PIERIDAE) and Appendix 3 (support for PIERIDIDAE) annexed to the present paper.

11. I set out below the action by the International Commission which would be called for (1) if it approved the majority recommendations now placed before it in favour of the spelling PIERIDAE (Alterna-



tive "A") and (2) if it approved the minority recommendations now placed before in favour of the spelling PIERIDIDAE (Alternative "B") :—

### Alternative "A"

#### (validation of the spelling "PIERIDAE")

- (1) Suppression under the Plenary Powers of the spelling PIERIDIDAE for the name of the family-group taxon having *Pieris* Schrank, 1801, as its type genus and validation of the spelling PIERIDAE for the name of the above taxon.
- (2) Addition of PIERIDAE (correction of PIERIDES) Duponchel, 1832, as validated under (1) above (type genus : *Pieris* Schrank, 1801) to the *Official List of Family-Group Names in Zoology*.
- (3) Addition to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of : (a) PIERIDES Duponchel, 1832 (an Invalid Original Spelling for PIERIDAE), (b) PIERIDINA Herrich-Schäffer, 1853 (an Invalid Original Spelling for PIERIDIDAE suppressed under (1) above), (c) PIERIDIDAE (correction of PIERIDINA) Herrich-Schäffer, 1853 (first published in this form by Reuter in 1897) (spelling suppressed under (1) above).

### Alternative "B"

#### (acceptance of the spelling "PIERIDIDAE")

- (1) Rejection of the proposal (a) for the suppression under the Plenary Powers of the spelling PIERIDIDAE for the name of the family-group taxon having *Pieris* Schrank, 1801, as its type genus and (b) for the validation of the spelling PIERIDAE for the above taxon.
- (2) Addition to the *Official List of Family-Group Names in Zoology* of PIERIDIDAE (correction of PIERIDES) Duponchel, 1832 (type genus : *Pieris* Schrank, 1801).
- (3) Addition to the *Official Index of Rejected and Invalid Family-Group Names in Zoology* of : (a) PIERIDES Duponchel, 1832 (an Invalid Original Spelling for PIERIDIDAE); (b) PIERIDAE Duponchel, 1844 (*Cat. méth. Lépid. Eur.* : 23) (an Erroneous Subsequent Spelling for PIERIDIDAE).

## APPENDIX 1

**On the philological inconvenience of the well-known family name  
“ PIERIDAE ”**

By JIŘÍ PACLT

(*National Museum, Prague, Czechoslovakia*)

It seems to me necessary to call attention to the correct form of the family name used for an important group of butterflies comprising the “ Whites ” and the “ Yellows ”.

2. As the type genus of the above-mentioned family *Pieris* Schrank, 1801, must be considered. To find the derivation of this name there is a Latin index of *nomina propria* which is very useful. “ *Pieris* ” was a Muse, but it should be realised that the stem of the name does not appear in the supposed form “ *Pier-* ” (thence PIERIDAE). The name “ *Pieris* ”, as may be seen from whichever Latin dictionary may be consulted, has the genitive “ *Pieridis* ”. From this, the stem will be obtained when the suffix “ *-is-* ” is taken off, namely “ *Pierid-* ”.

3. Article 4 of the International Code says : “ The name of a family is formed by adding the ending ‘ *idae* ’, the name of a subfamily by adding ‘ *inae* ’, to the stem of the name of one of the included genera, which would then be regarded as the type genus ” (modified text recommended by the British National Committee on Entomological Nomenclature in 1928, and used here on the grounds that it is preferable to the official text).<sup>1</sup>

4. In accordance with the fact that the stem of the name “ *Pieris* ” is “ *Pierid-* ”, and with the directions of the relevant Article of the International Code, the grammatically correct and nomenclatorially valid form of the family name is PIERIDIDAE.

### *History*

5. The family was called PIERIDAE by Duponchel (1844, *Cat. Lép. Europ.* : 23) as a modification of that author’s own PIERIDES (1832, *in*

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<sup>1</sup> The suggested re-wording of Article 4 here referred to was not subsequently approved by the International Congress of Zoology and accordingly never acquired any official status. The provisions in the *Règles* relating to the formation of family-group names were completely re-modelled by the Fourteenth International Congress of Zoology, Copenhagen, 1953 (see 1953, *Copenhagen Decisions zool. Nomencl.* : 32—37). The wording of the provision referred to by Dr. Paclt was revised but the basic meaning of this provision remained unaltered.

Godart, *Hist. nat. Léop. France*, Suppl. 1 : 381). The first author to recognise the grammatical character of the name in question was Herrich-Schäffer (1853, *Lepid. exot.*: 54) who used the name PIERIDINA for these butterflies.

6. Unfortunately the family for the "Whites" and "Yellows" has, with some exceptions, been known as PIERIDAE since Duponchel. The correct name PIERIDIDAE was used—to my knowledge—by the following authors only:—

Reuter (1896, *Acta Soc. Sci. fenn.* 22 : 228 *et ff*); Grote (1900, *Proc. amer. phil. Soc.* 39 : 13); Grote (1901, *Verh. zool.-bot. Ges. Wien* 51 : 659); Jachontov (1904, *Rev. russ. Ent.* 4 : 15); Strand (1910, *Wien. ent. Z.* 29 : 30); Grünberg (1910, *Denkschr. med.-naturwiss. Ges. Jena* 16 : 111); Grünberg (1911, *Stett. ent. Z.* 72 : 378); Strand (1912, *Arch. Naturg.* A11 : 67; *id.*, 1913, *ibid.* A2 : 10—22; *id.*, 1914, *ibid.* A10 : 105; *id.* 1916, *ibid.* A5 : 100; *id.*, 1918, *Soc. ent.* 33 : 20); Biezanko (1924, *Arch. Naturg.* 90, A5 : 243); Caland (1925, *Ent. Ber.* 6 : 388—396); Strand (1927, *Arch. Naturg.* 91, A12 : 281); Halik (1929, *Brehms Tierleben* (Czech edition) vol. 1, tab. 9, pp. 322—323; (in the German edition of 1915 by R. & H. Heymons on p. 329 of the 4th edition, tome 2, the name is used only in the subfamily sense as PIERIDINAE); Nordström, Wahlgren & Tullgren (1935, *Svenska Fjärilar* (1), Almän, Delen : 20, 78, 79, 82, (2), *Syst. Delen* : 4); Nordström (1943, *Opusc. ent.* 8 : 62); Paclt (1944, *Acta Soc. ent. Bohem.* 41 : 122, 124); Bryk (1944, *Ark. Zool.* 36A (No. 3) : 3); *id.*, 1946, *ibid.* 38A (No. 3) : 13); Paclt (1946, *Biol. Listy* 27 : 31); Paclt (1947, *Acta Soc. ent. Czechosl.* 44 : 40).

## APPENDIX 2

### Comments received from specialists who favour the commonly current spelling "PIERIDAE"

#### 1. G. van Son (*Pretoria*) (18th June 1956)

The name PIERIDAE has been in universal use throughout lepidopterological literature, notwithstanding the fact that old workers in this field were usually possessed of a better knowledge of classical languages than many modern workers are. When the family is referred to in the vernacular, it is always spoken of as Pierid, not Pieridid, and the butterflies are given as Pierids, not Pieridids.

In view of the above, I am strongly in favour of the name PIERIDAE being preserved in preference to PIERIDIDAE. This view is shared by Dr. H. K. Munro, Entomologist in charge of the National Collection of Insects of the Union Department of Agriculture.

**2. H. K. Munro** (*Pretoria*) (18th June 1956)

For Dr. Munro's views, see No. 1 above.

**3. J. McDunnough** (*Halifax, Canada*) (18th June 1956)

The question of whether the name PIERIDAE should be changed to PIERIDIDAE. I am against making such a change on the excuse of a mere technicality. As you state, the form PIERIDAE has been for so long in general use that it would mean upsetting the stability we are all so keen on establishing merely to satisfy the whims of Latin purists.

**4. A. Sibatani** (*Glasgow*) (19th June 1956)

The traditional usage of PIERIDAE should be maintained and any change of the family name for merely formal reason should be objected.

**5. W. Forster** (*München*) (19th June 1956)

Zweifellos ist vom philologischen Standpunkt die Ableitung PIERIDIDAE korrekt und richtig. Im Interesse der Stabilität der Nomenklatur lehne ich aber eine Änderung des allgemein eingeführten Namens PIERIDAE energisch ab und stehe auf dem Standpunkt, dass die Stabilität der Nomenklatur in diesem Falle philologischen Erwägungen, mögen sie auch noch so berechtigt sein, vorzugehen hat. Ich bin also der Meinung, dass der Name PIERIDAE beibehalten werden sollte.

**6. H. E. Box** (*Trinidad*) (19th June 1956)

My knowledge of these matters is so limited that I fear my opinion can have little value, but for what it is worth, on purely conservative grounds, favour alternative (1) [PIERIDAE] rather than (2) [PIERIDIDAE].

**7. N. D. Riley** (*London*) (20th June 1956)

I feel strongly that this is a case in which long usage should outweigh linguistic niceties. The Whites are a family of butterflies of considerable interest outside the realms of taxonomy and nomenclature. They concern the agriculturist, the geneticist, the general biologist, and others, who would be much confused by the change which, if made, could not conceivably benefit anyone. I am strongly opposed to it.

**8. H. M. Pruthi** (*Panjab*) (20th June 1956)

I have considered the matter and feel that we should stick to the name PIERIDAE instead of adopting PIERIDIDAE.

**9. W. J. Hall** (*London*) (20th June 1956)

I have no hesitation in saying that in my opinion this is a case where the International Commission should take the action necessary to secure that this family name should be PIERIDAE.

**10. R. Verity** (*Firenze, Italy*) (20th June 1956)

There is no serious reason for zoologists to trouble with orthographic correctness. According to my view one should be very careful before launching a new name but, once it has been erected, zoologists should follow the *Règles* strictly, by which it has been provided that names should be stable and cannot be altered.

**11. E. M. Hering** (*Berlin*) (21st June 1956)

The International Commission should take such action as is necessary to secure that the family name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE, by reasons both of the priority of Westwood, 1839, of this taxon name, and in the interest of the stability of the current nomenclatorial practice.

**12. L. A. Berger** (*Belgian Congo*) (21st June 1956)

Je veux bien admettre que le terme PIERIDIDAE est plus correct au point de vue grammatical que le terme PIERIDAE, mais l'application de ce premier terme ne nous fera pas faire un seul pas en avant et il n'aidera en rien le domaine scientifique.

Si le terme PIERIDAE est moins correct, il est en tout cas infiniment plus fréquemment employé que celui proposé par le Dr. Paclt et, malgré tout le respect que je porte au code de nomenclature, je continuerai quelles que soient les décisions qui seront adaptées, je continuerai à employer le terme PIERIDAE, car il est bien plus connu que l'autre et parce qu'il ne s'agit plus ici d'une question de nomenclature mais d'une question grammaticale. Je fais de l'entomologie et non de la grammaire ; les recherches que demande l'entomologie sont déjà suffisamment longues que pour ne pas encore perdre un temps précieux à des questions aussi peu importante que celle soulevée par le Dr. Paclt.

Pour me resumer, je suis donc formellement opposé à l'application du terme PIERIDIDAE et continuerai à utiliser uniquement le terme PIERIDAE.

**13. R. Paulian** (*Madagascar*) (21st June 1956)

Il est absolument indiscutable que l'application stricte des règles de la grammaire classique voudrait la transformation de ce nom en PIERIDIDAE, mais il nous paraît de façon catégorique qu'il y aurait tout intérêt à ce que le nom de famille PIERIDAE soit conservé tel par une décision de la Commission Internationale.

Dans le cas particulier, la transformation suggérée aurait l'inconvénient d'introduire une coupure entre les usages de tous les spécialistes travaillant sur la famille depuis 1839, et l'usage nouveau, et la transformation du nom de famille, simplement pour l'accorder avec des règles grammaticales, ne paraît pas se justifier.

**14. B. C. S. Warren** (*Folkestone*) (22nd June 1956)

I certainly consider such action should be taken as to retain the spelling of the name as PIERIDAE for the following reasons: (a) the proposed change is purely pedantic and serves no practical purpose; (b) if adopted the same course would have to be taken (and has been already by supporters of this view) in the case of NYMPHALIDAE; (c) the result of adding the extra "id" would make the name troublesome to write and to pronounce; (d) the change would seem, to be in opposition to Article 19 of the Code.

My friend, Mr. A. M. Morley, who is both a keen entomologist and a life long classical adviser is absolutely opposed to the change and thinks it would only cause both spellings to be used, the majority of workers following the form in all the standard works. He admits PIERIDIDAE may be more correct but that both are quite artificial words, and that PIERIDIDAE combines a Latin patronymic with a Greek patronymic which is not satisfactory, and therefore there is no absolute standard of correctness for either.

I would add that such a change would have the unfortunate effect of encouraging collectors to ignore the Code, even those who most wish to uphold it.

**15. A. M. Morley** (*Folkestone*) (22nd June 1956)

For Mr. Morley's views, see No. 14 above.

**16. B. Petersen** (*Uppsala*) (22nd June 1956)

I think I prefer the form PIERIDAE because it is the spelling most commonly used.

**17. B. N. Schwanwitsch** (*Leningrad*) (28th June 1956)

I decidedly think that PIERIDAE should be preferred to PIERIDIDAE. The former is in great use in this country, also in Russian transcription.

**18 and 19. N. Knaben and M. Opheim** (*Oslo*) (5th July 1956)

We consider that the International Commission should take such action as is necessary to secure that the family name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE.

**20. D. C. Ferguson** (*Halifax, Canada*) (8th July 1956)

I feel that in this case the almost universal usage of PIERIDAE should certainly overrule any attempt to replace it with the technically correct form.

**21. H. Beuret** (*Neuwelt, Switzerland*) (12th July 1956)

Considering the fact of the world-wide use of the long established name PIERIDAE I think that a change based on linguistic grounds would cause too much trouble and open the same question in a great number of similar cases. In my opinion the proposed change involves therefore a great danger for nomenclature and the price which we would have to pay for a "correct spelling" is obviously too high!

**22. F. Hemming** (*London*) (20th July 1956)

With reference to Commission Circular Z.N.(S.) 289, dated 7th June 1956 I write to inform you that I am strongly in favour of the use by the International Commission of its Plenary Powers to validate the spelling PIERIDAE for the family name based on the generic name *Pieris* Schrank. Nomenclature is a good servant but a bad master and I am of the opinion that where in any particular case the application of the normal provisions of the *Règles* would lead to serious disturbance in current nomenclatorial practice, the proper course is for the Commission to prevent this from happening by the use of its Plenary Powers. This principle has been embodied in the Preamble annexed to the *Règles* by the Copenhagen Congress and is no longer a matter for discussion.

In this particular case there is an overwhelming preponderance of usage in favour of the spelling PIERIDAE and there would seem to me to be no justification in abandoning this spelling for the correct but virtually unknown spelling PIERIDIDAE.

**23. T. H. B. Jackson** (*Kitale, Kenya*) (21st July 1956)

There appears to be no doubt that the correct spelling of this taxon should be PIERIDIDAE and, if this were and was likely to remain, an isolated case the Commission might well rule its acceptance. It seems to me, however, that this would create a highly dangerous precedent, involving as it does, the alteration of the name of so high a category as a family. It would be very difficult thereafter to refuse to allow

similar alterations and might well, should the opposite action be taken now, lead to chaotic conditions in the future.

**24. W. E. Field** (*Washington, U.S.A.*) (26th July 1956)

I consider that the International Commission should take such action as is necessary to secure that the family-name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE, the spelling used therefor by almost all workers both at the present time and throughout the period since the above genus was made the type genus of a family-group taxon by Westwood in 1839.

**25. E. C. Zimmerman** (*U.S.A.*) (29th July 1956)

This is a difficult question with much to be said in favour of either side. In general I would agree that if it can be proved beyond doubt that there is an error in construction of a name, then it may be best to correct it. However, the names PIERIDAE and PYRALIDAE, at least, were originally spelt in that form and were so used for many years by many authors. Some of these authors were experienced writers of Latin, and they did not use the forms PIERIDIDAE and PYRALIDIDAE. Moreover, the forms PIERIDIDAE, PYRALIDIDAE, etc., are awkward to spell and to pronounce. I believe that this is a case where priority and history indicate that the forms PIERIDAE and PYRALIDAE should be placed on the accepted *List*. I doubt that stability can be had until decisions are taken (arbitrary if need be) by the Commission and the names placed on the *Official List*.

**26. F. Martin Brown** (*Colorado Springs, U.S.A.*) (9th August 1956)

There can be no argument but that PIERIDIDAE and PIERIDINAE are orthographically correct, if the names derive from  $\pi\epsilon\rho\iota\delta\epsilon\varsigma$ . I believe, however, that there may be a way to retain the old spellings without direct action of the Commission. The Pierides derived their name from the Macedonian district  $\pi\epsilon\rho\iota\alpha$  from which PIERIDIDAE and PIERINAE, I believe, can be legally derived. Since we do not know if Westwood had in mind the Muses or the land from which they derived their name I see no reason to assume either position but acceptance of the land rather than the young ladies does less to confuse the situation. When a name has been used as consistently as those under discussion for so long a time I feel every effort must be made to retain the long-accepted spelling if possible.

**27. P. E. L. Viette** (*Paris*) (13th August 1956)

I consider that the International Commission should take such action as is necessary to secure that the family-name based upon the generic name *Pieris* Schrank, 1801, shall be PIERIDAE.



**28. A. J. Nicholson** (*Canberra*) (21st August 1956)

I have considered the question of the name PIERIDAE raised in your letter and have also had comments from some of the Officers of this Division who are interested.

To us there is no doubt that the form PIERIDAE should be retained for this family. We believe the danger of establishing a precedent which might be exploited by workers on many other groups with long-established names would be too great to warrant the change. The difficulty raised by Dr. Paclt could best be resolved by adding the family name PIERIDAE to the *Official List of Family-Group Names*. The name PIERIDAE is short, euphonious and thoroughly established. A change would result in quite unnecessary confusion and, we feel, would be a retrograde step.

## APPENDIX 3

**Comments received from specialists who favour the acceptance of the spelling "PIERIDIDAE"****1. J. Paclt** (*Bratislava, Czechoslovakia*)

[Dr. Paclt, who was the first to bring the present problem before the International Commission, advocates the acceptance of the spelling PIERIDIDAE. Dr. Paclt's paper is being published as Appendix 1 to the present paper.]

**2. E. G. Munroe** (*Ottawa*) (20th June 1956)

My feeling on this question is strong and clear. Although the proposed Preamble to the Rules, the resolution adopting the principle of conservation, and two of the four drafts of a specific expression of that principle, were all worded so as to apply to names at all levels, these instruments were intended to preserve well-established names threatened by the law of priority, not to preserve minor errors of elementary grammar or spelling for which an automatic corrective procedure is provided. The whole tendency of the Copenhagen Decisions was (a) to extend and improve such automatic correctives and (b) to reduce the load of specific rulings previously imposed on the Commission. The principle of the present question was virtually decided when the Copenhagen Congress agreed that family names based on classical generic names should be formed by appropriate replacement of the genitive ending of the generic name (*Copenhagen Decisions on Zoological Nomenclature* : 34, Para. 50(1)(a)), and that any contravention of this should be automatically corrected (*ibid.*,

Para. 50(1)(b) ; this decision specifically replaced the widely criticized decision of the Paris Congress (*Bull. zool. Nomencl.* 4 : 246, Conclusion 9) that family names should be based on an indeterminate "stem" of the name of the type genus.

No real issue of intelligibility or stability arises here. The change is simply from an incorrect to a correct and obviously related form, and should cause only very minor inconvenience. On the other hand to perpetuate the erroneous form under suspension of the Rules would open the door to a possibly large number of similar applications, with the danger of imposing a considerable body of work on the Commission and its secretariat in connection with really inconsequential cases. The only possible argument is that of stability, to which it can be answered that to admit cases of the present type would be to undermine, if not actually to vitiate, the decision adopted at Copenhagen, itself a reversal of the Paris decision. Such vacillation on points of principle, where there is a clear automatic, and not seriously inconvenient procedure already laid down, would in my opinion be a much more serious menace to stability and to the respect the Rules command, than would the occasional introduction of an extra syllable required by correct declension.

In the very rare cases where the genitive form is so different from the nominative as to be virtually unrecognizable, the situation is quite different, and there might be practical grounds for a *conservandum* ruling.

The real mystery is why Dr. Paclt has thought it necessary to trouble the Commission with this matter, when the *Copenhagen Decisions* specifically provide that corrections such as the one he advocates are to be made automatically. Surely the onus is on opponents of the required change to present an application for suspension of rules, and Dr. Paclt's current application is unnecessary and out of order.

### 3. C. F. dos Passos (*Washington Corners, U.S.A.*) (21st June 1956)

The proposed change of PIERIDAE to PIERIDIDAE by the addition of one syllable of two letters is more of a correction in spelling than a change of name. If it were necessary to propose a new name for *Pieris* Schrank so that the family name should be changed the question would be serious.

On the other hand PIERIDAE has been used so long and so uniformly that it is a great pity that someone has discovered that this name was never written correctly.

I am inclined to believe that such a slight change in the spelling of this family name would cause little or no confusion and therefore feel that, as scientists desired to attain perfection the normal rules should be allowed to operate in this case and that the spelling PIERIDIDAE should be accepted for this family name.

**4. A. da Costa Lima** (*Manguinhos, Brazil*) (25th June 1956)

*Pieris* : As was made clear by Grensted, the stem of the word being "Pierid", the correct name of the family derived from it must be, according to the Rules, PIERIDIDAE.

**5. V. G. L. van Someren** (*Ngong, Kenya*) (27th June 1956)

On the evidence produced, my opinion is that the name which should be used is PIERIDIDAE. I therefore support the alternative (2) of your note. In an issue involving a major family I think we must be guided by what is correct technically and not be influenced by what one can term "common usage".

**6. R. Ferreira d'Almeida** (*Rio de Janeiro*) (27th June 1956)

The genitive of the Latin name *Pieris* is "Pieridis", its radical thus being "Pierid". According to this the correct name of this family must be, I think, PIERIDIDAE. I therefore agree that the family name established with the genus *Pieris* Schrank, 1801, must be accepted as PIERIDIDAE instead of PIERIDAE.

**7. K. J. Hayward** (*Tucumán*) (31st July 1956)

With reference to the suggested change of the family name PIERIDAE to PIERIDIDAE, I am of the opinion that the old and incorrectly formed name PIERIDAE should be amended to PIERIDIDAE, thus settling this disputed point once and for all without leaving a loophole for any further discussion.

**8. C. L. Remington** (*New Haven, Connecticut*) (10th October 1956)

I feel strongly with Dr. Paclt that the correct name for the family including *Pieris* should be PIERIDIDAE, and I have so spelled it in my own recent papers. Before doing so, several years ago, I consulted my Yale colleague, Professor Alfred R. Bellinger, Chairman of our Classical Department and something of an amateur lepidopterist as well as a distinguished Latin scholar. His conclusion was that of Professor Grensted quoted in the Annexe to your letter.

It is my view that the rule for the formation of family names is a good one, easy enough to apply, and that no exceptions should be made for family names. The Plenary Powers appear to me to be much too actively in use and the present case is one of many in which I hope they will not be invoked. If the Commission does not act conservatively on the procedure of by-passing the Rules, I believe an increasing number of thoughtful taxonomists will feel logically obliged to pick and choose among the uses of the Plenary Powers and ignore those which are to them unreasonable.

As for the question of changing familiar names for organisms, I believe that so many changes are inescapable (for taxonomic rather than nomenclatorial reasons), that all taxonomic users necessarily must be accustomed to some instability. They will easily adjust to logically proper changes like PIERIDIDAE with little more than discomfort than a grumble for "the good old days". Use of the Plenary Powers to conserve names, as I have written before, should be reserved for rare instances in which a name unusually well-known and widely used in the non-taxonomic (economic, physiological, genetical, etc.) literature is threatened.

#### 9. J. Bourgogne (*Paris*) (3rd November 1956)

Il est regrettable d'avoir à modifier un nom (PIERIDAE) universellement employé depuis une centaine d'année et un très grand nombre de fois.

Cependant, puisque la forme PIERIDIDAE est la seule qui soit correcte, il me semble qu'on doit adopter cette forme. La persistance prolongée d'une erreur n'est pas une excuse, et à mon avis le terme PIERIDIDAE devait être adopté définitivement.

Cette modification n'est d'ailleurs pas grave, car elle n'entraînera aucune confusion (ce que n'est pas le cas de nombreuses modifications proposées et adoptées au moins momentanément). J'ai employé la forme PIERIDIDAE dans *Le Traité de Zoologie de P. P. Grassé*.

## II. THE SUBSEQUENT HISTORY OF THE CASE

**2. Registration of the present application:** Upon the receipt in 1947 of Dr. Paclt's preliminary enquiry regarding the spelling to be adopted for the family-group name based upon the generic

name *Pieris* Schrank, 1801 (Class Insecta, Order Lepidoptera), the problem involved was allotted the Registered Number Z.N.(S.) 289.

**3. Publication of the present application :** The Secretary's Report relating to the present case and associated documents were sent to the printer on 24th August 1956 and were published on 30th November of that year in Part 11 of Volume 12 of the *Bulletin of Zoological Nomenclature* (Hemming, 1956, *Bull. zool. Nomencl.* **12** : 291—306).

**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 of Zoological Nomenclature of its Plenary Powers in the present case was given on 30th November 1956 (a) in Part 11 of Volume 12 of the *Bulletin of Zoological Nomenclature* (the Part in which the Secretary's Report was published) and (b) to the other prescribed serial publications. In addition such Notice was given to four general zoological serial publications and to eight entomological serials in Europe and America.

**5. Comments received from specialists in the group concerned :** As has been explained in the application submitted in this case, the questionnaire issued by the Office of the Commission elicited the views of thirty-seven (37) specialists, of whom twenty-eight (28) favoured the validation of the customary spelling PIERIDAE for the family-group taxon having the genus *Pieris* Schrank, 1801, as type genus, while nine (9) specialists, including the original applicant (Dr. Paclt), favoured the adoption of the technically correct spelling PIERIDIDAE. The communications so received are annexed to the Secretary's Report reproduced in the first paragraph of the present *Opinion*, Dr. Paclt's original communication in Appendix 1, the communication from specialists favouring the spelling PIERIDAE in Appendix 2, those from the specialists who favoured the spelling PIERIDIDAE in Appendix 3. No further comments from specialists in the group concerned were received as the result of the publication of the present application and of the issue of Public Notices in regard thereto.

**6. Comments received from three zoologists who are specialists in groups other than that immediately concerned in the present case :** The publication of the present application elicited notes of objection from three zoologists who are specialists in groups other than that immediately concerned in the present case. Those specialists who were interested in the issue raised in the present case solely by reason of the question of principle so involved were opposed to action being taken by the Commission to preserve customary spellings for family-group names in cases where those spellings were technically incorrect. The specialists in question and the communications submitted by them were as follows :—

**(a) P. C. Sylvester-Bradley (University of Sheffield) (Enclosure to a letter dated 11th December 1956)**

The issue in Mr. Hemming's case (1956, *Bull. zool. Nomencl.* **12** : 291—306) is quite simple : should the Plenary Powers be used to validate an incorrect spelling of a family-group name which has been in current use for a long time (over 120 years), and which has been used in its correct form only occasionally? The decision of the Commission in this case will be important, for it raises an issue of principle. Cases similar to that of the name PIERIDAE are very common throughout the field of zoological nomenclature. Family names based on genera of Greek origin whose complete stem is not contained in the nominative singular have often been spelt incorrectly, and in many of these cases current usage and majority usage both favour the incorrect form. It will be seen, therefore, that the present case is of special interest to a much wider zoological field than that represented by the forty-five entomologists at first circulated with the typescript of Mr. Hemming's proposal.

2. The first attempt at laying down provisions for the formation of family group names was adopted at Berlin in 1901, when a Rule was established instructing authors to add the terminations “-idae” or “-inae” to the “radical” of the name of the type genus. At Graz in 1910 the word “stem” was substituted for the word “radical”. At Paris in 1948 further clarification was introduced by the following definition : “The expression ‘stem’ is to be interpreted as meaning either (1) the grammatical or classical stem or (2) a part of the stem, the choice to be made in favour of whichever of the foregoing methods both shows most clearly the relationship between the generic name on the one hand and the name of the family on the other and provides the simpler and more euphonious form compatible with that relationship” (1950, *Bull. zool. Nomencl.* **4** : 246, paragraph 9(2)). Hemming

(1952, *Bull. zool. Nomencl.* 7 : 65, 66), commenting on the Paris formula quoted above, stated that it "was devised partly to ease the burden imposed on the non-classicist by Article 4, partly for the purpose of promoting stability in nomenclature by preventing the changing of defectively formed but well-established family names. All will agree with the object of the foregoing decision, but, as subsequent correspondence has shown—and as is indeed evident on further reflection—the particular solution selected is not satisfactory, for it lacks adequate precision and rests moreover upon criteria of a subjective character and is therefore incapable of securing final settlements as to the names to be given to families in the Animal Kingdom."

3. At Copenhagen the provisions for the formation of Family-Group names were changed. The suggestion that a valid Family-Group name could be formed from only part of the stem of the type-genus, specifically written into the provisions formulated at Paris, was dropped. The new provisions prescribed "that, where the name, or the terminal part of the name, of the type genus of a taxon in any category in the Family-Group is a word of Greek or Latin origin, the corresponding Family-Group name concerned is to be formed by taking the genitive of the name of the type-genus, and replacing the genitive termination by the appropriate termination for the category in the family group concerned" (1953, *Copenhagen Decisions zool. Nomencl.* : 34, Decision 50 (1) (a)).

4. It will be evident that the Copenhagen decision is in a sense a reversal of the Paris decision. The PIERIDAE, being based on part of the full stem "Pierid-" would be valid according to the Paris formula, but not valid according to the Copenhagen Decision.

5. The purpose of the Copenhagen decision was presumably to ensure that the valid family-group name based on any particular genus would be unique and objective. Since the publication of the Copenhagen report, attempts have been made in several quarters to adopt the spelling of family group names which is judged to be correct according to these provisions irrespective of whether the correct name or an incorrect name is the one that is either current, or dominant in usage. Notable among such attempts to establish uniformity in the spelling of Family-group names has been the publication, under the editorship of Raymond C. Moore, of a number of volumes of the *Treatise on Invertebrate Paleontology*. For example, the last of the six volumes which (at the time of writing) have so far been published, and which deals with the phylum Coelenterata, recognises 266 taxa of the Family-Group category as taxonomically valid. Of these no fewer than 69 (26%) have been corrected, according to the Copenhagen provisions, from the form in which they were originally introduced.

6. The Copenhagen Decisions also recommended that a preamble to the *Règles* should be inserted which would emphasize that a primary purpose was to ensure that zoological names should be both stable and universally accepted. "Where either of these objects is threatened, the Plenary Powers of the International Commission on Zoological Nomenclature afford relief" (1953, *Copenhagen Decisions zool. Nomencl.* : 22, Decision 19 (2)).

7. The Commission, when voting on the case concerning the PIERIDAE submitted by Mr. Hemming, will need to determine first whether in fact the adoption of the correct spelling PIERIDIDAE would upset stability and universality. If they decide that this would indeed be the case, it will be advisable also to consider what influence the policy adopted by the *Treatise on Invertebrate Paleontology* may have in cases of a similar nature in which corrected spellings are being introduced. A consistent attitude would seem to suggest the advisability of issuing without delay a *Declaration* urging authors not to propose changes in family group names formed incorrectly according to the Copenhagen Decisions if such names have passed, in their incorrect form, into current circulation. Such incorrect names should, if this view is acceptable to the Commission, be submitted for validation by use of the Plenary Powers. It could even be argued that a return to the Paris formula might be advantageous.

8. An alternative view might be that stability and universality would be better served by always adopting in such cases the correct spelling. Such a view would lead to a vote in favour of Mr. Hemming's alternative B in the case of the Pierididae, and would endorse the policy at present being adopted by the *Treatise on Invertebrate Paleontology*. This is the course which seems preferable to the present writer.

**(b) Henning Lemche (Universitetets Zoologiske Museum, Copenhagen) (Letter dated 13th December 1956)**

(In a letter dated 23rd August 1957, Dr. Lemche intimated that he had changed his mind as to the suitability of allowing exceptions to the formally-correct spelling of family names and accordingly withdrew the objection to the present application which he had previously lodged. In these circumstances the letter of objection which Dr. Lemche had communicated to the Office of the Commission on 13th December 1956 is not here reproduced.)

**(c) Raymond C. Moore (University of Kansas, Lawrence, Kansas, U.S.A.) (Letter dated 4th January 1957)**

The subject of this letter is on the spelling of family-group taxa, one example of this being PIERIDAE versus PIERIDIDAE. I have rather



strong views about this and would like to express them for the record as follows :

(1) In my view, stability and universality of nomenclature as regards family-group taxa almost certainly are far better served by following provisions of the Copenhagen Decisions than by random setting aside of these provisions through exercise of Plenary Powers of the Commission. I use the word "random" because the question of PIERIDAE versus PIERIDIDAE arising in the Order Lepidoptera in no way differs from hundreds of others as we are finding in phyla concerned in paleozoology. Even though some of these erroneously spelled family-group names have been widely used for one hundred years or more, no difficulty such as expressed opposition has been encountered in correcting them.

(2) No ambiguity is introduced by changing PIERIDAE to PIERIDIDAE, since the name of the type genus is the same. Appeal to usage is quite insufficient defence for allowance to present-day specialists to maintain mental habits founded on error. Even where such habits seem to be fixed, the next generation will not be bothered by them.

(3) Unnecessary use of Plenary Powers by the Commission is to be criticized strongly. Granted that exercise of these Powers should be unlimited and unfettered, the Powers are too precious to be squandered. I strongly feel that too-prevalent appeal for exercise of Plenary Powers, sometimes backed by little more than personal preference, leads to establishing nomenclature by fiat rather than by rule. In North America a growing body of strong opposition to multiplying work of the Commission by acts of this sort is seen.

(4) The report that 28 of 37 active lepidopterists consulted in the case of PIERIDAE versus PIERIDIDAE favor the former spelling in my view indicated narrowness of outlook on nomenclatorial principles by this group. Unless each minor division of zoology is to deviate from application of the rules at will, which certainly would lead in the direction of unhappy diversity, the majority opinion of consulted lepidopterists deserves no special weight.

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

**7. Issue of Voting Paper V.P.(57)43 :** On 3rd June 1957 a Voting Paper (V.P.(57)43) was issued in which the Members of the

Commission were invited to vote either for, or against, "the proposal relating to the spelling of the family-group name based on the generic name *Pieris Schrank*, 1801, as set out as Alternative "A" in paragraph 11 on page 295 of Volume 12 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 *Opinion*], it being understood that any negative vote on the above proposal will be treated as constituting an affirmative vote for the draft Ruling set out as Alternative "B" on the page in the *Bulletin* referred to above.

**8. The Prescribed Voting Period :** As the foregoing Voting Paper was issued under the Three-Month Rule, the Prescribed Voting Period closed on 3rd September 1957.

**9. Particulars of the Voting on Voting Paper V.P.(57)43 :** At the close of the Prescribed Voting Period, the state of the voting on Voting Paper V.P.(57)43 was as follows :—

(a) *Affirmative Votes had been given by the following eighteen (18) Commissioners (arranged in the order in which Votes were received) :*

Hering ; Lemche ; Bodenheimer ; Boschma ; Key ;  
Mayr ; Prantl ; Dymond ; Riley ; Bonnet ; Hankó ;  
Jaczewski ; Esaki ; Tortonese ; Stoll ; Hemming ;  
Bradley (J.C.) ; Kühnelt ;

(b) *Negative Votes, five (5) :*

Holthuis ; Vokes ; Sylvester-Bradley ; do Amaral ;  
Cabrera ;

(c) *Voting Papers not returned, two (2) :*

Miller<sup>2</sup>; Mertens<sup>3</sup>.

**10. Declaration of Result of Vote :** On 4th September 1957, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(57)43, signed a Certificate that the Votes cast were as set out in paragraph 9 above and declaring that, not less than two out of every three votes cast in the vote on the above Voting Paper having been in favour of the use of the Plenary Powers in the manner recommended in the application submitted in this case, the proposal which formed the subject of the said vote 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 5th October 1957, 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.(57)43.

**12. Original References :** The following are the original references for the names placed on the *Official List of Family-Group Names in Zoology* and on the *Official Index of Rejected and Invalid Family-Group Names in Zoology* by the Ruling given in the present *Opinion* :—

PIERIDAE (correction of PIERIDES) Duponchel, 1832, in Godart, *Hist. nat. Léop. France*, Suppl. 1 : 381

PIERIDES Duponchel, 1832 (an Invalid Original Spelling for PIERIDAE)

PIERIDINA Herrich-Schaeffer, 1853, *Lepid. exot. Spec. nov.* : 54

PIERIDIDAE Reuter, 1897, *Acta Soc. Sci. fenn.* 22 : 228

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<sup>2</sup> After the close of the Prescribed Voting Period a late negative vote was received from Commissioner Miller.

<sup>3</sup> After the close of the Prescribed Voting Period a late affirmative vote was received from Commissioner Mertens.

**13. Other names involved in the present case :** Under a General Directive given by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the Commission is required, when placing a family-group name on the *Official List of Family-Group Names in Zoology*, to place on the *Official List of Generic Names in Zoology* the name of the type genus of the family-group taxon concerned and on the *Official List of Specific Names in Zoology* the specific name of the species which is the type species of the type genus of that taxon if that name is the oldest available specific name for the species concerned and in other cases whatever is considered to be the oldest such name. No action under the foregoing Directive is however required in the present case, since *Pieris* Schrank, 1801, the name of the type genus of the family-group taxon PIERIDAE, was placed on the *Official List of Generic Names in Zoology* by the Ruling given in *Opinion 278* (1954, *Ops. Decls. int. Comm. zool. Nomencl.* **6** : 135—178) and in the same *Opinion* the specific name *brassicae* Linnaeus, 1758, as published in the combination *Papilio brassicae*, the specific name of the type species of the genus *Pieris* Schrank, was placed on the *Official List of Specific Names in Zoology*.

**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 Five Hundred (500)* of the International Commission on Zoological Nomenclature.

DONE in London, this Fifth day of October, 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

**VOLUME 17. Part 24.  
(Concluding Part)**

**LONDON :**

Printed by Order of the International Trust for  
Zoological Nomenclature

and

Sold on behalf of the International Commission on Zoological  
Nomenclature by the International Trust at its Publications Office

41, Queen's Gate, London, S.W.7

1958

**Price One Pound, Eight Shillings and Sixpence**

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# 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 17. Part 24. Pp. 423—452**  
(also published with this Part : T.P.—XVI)

## CONTENTS

Corrigenda ; Authors' and Subject Indexes ; Particulars of the dates of publication of the several Parts in which the present volume was published ; Instructions to Binders

---

Also published with this Part ; Title Page, Foreword ;  
Table of Contents.

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# INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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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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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)

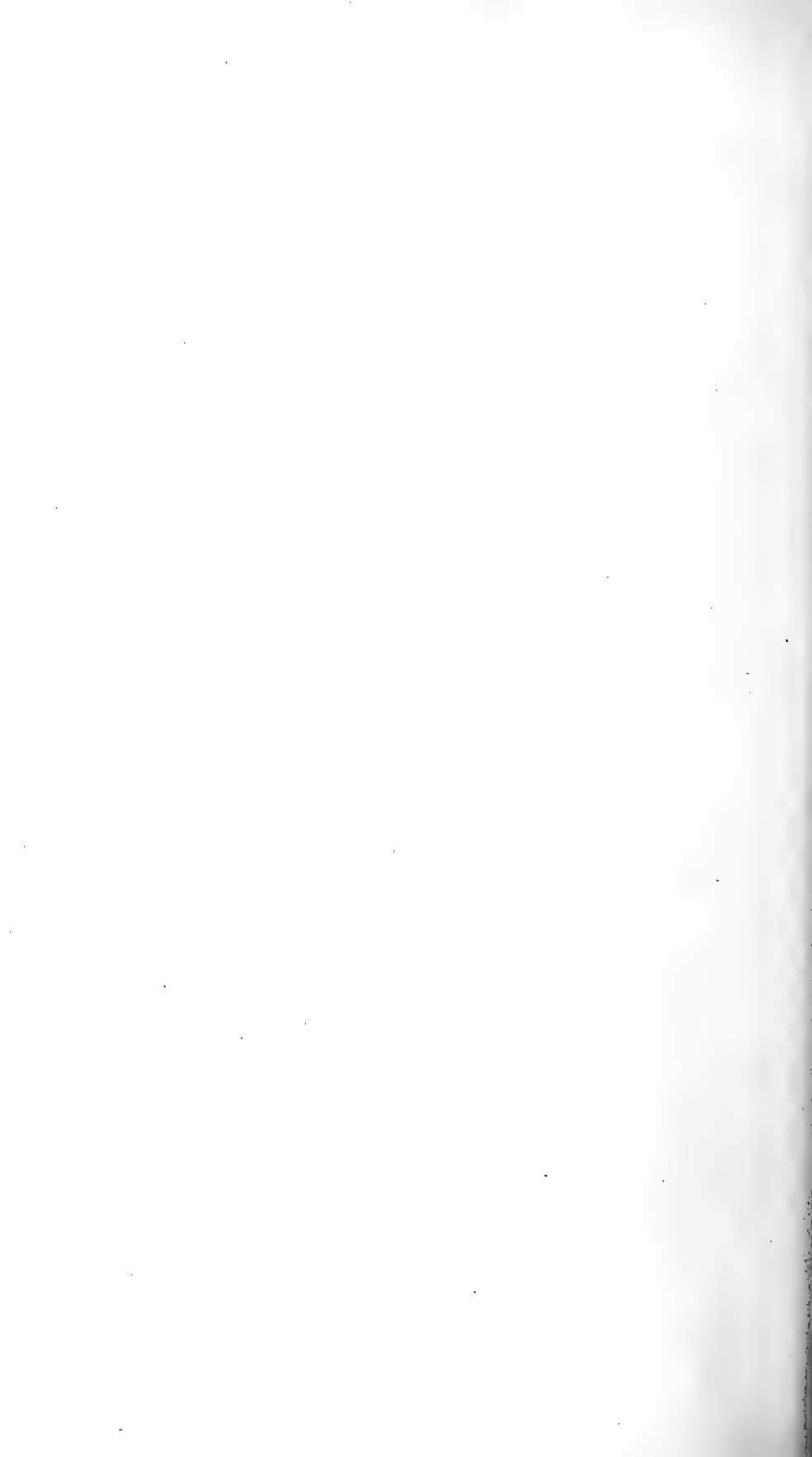
Professor Ernst MAYR (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) (4th December 1954)

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



### Corrigenda

- page 121. Ruling (2)(a), last line but two : insert “ Cuvier ” between “ *serpens* ” and “ (G.L.C.F.D.) ”
- page 122. Ruling (4)(c), first line : substitute “ 1855 ” for “ 1858 ”
- page 126. Line 2 : }  
page 141. Line 2 : } substitute “ 1855 (*Handb. Dierk.* (ed. 2) 2 : 367) ” for “ 1858  
(*Handb. Zool.* 2 : 161) ”
- page 181. Ruling (2)(a), last line but one : substitute “ *parreyssii* Fitzinger in Wagler, 1833 ” for “ *parreyssii* Wagler, 1832 ”
- page 184. First line : substitute “ Fitzinger in Wagler ” for “ Wagler ”
- page 184. Paragraph 8 (2), last line : substitute “ 1833 ” for “ 1832 ”
- pages 209—254 : substitute “ Lahusen ” for “ Lanusen ” throughout, wherever this author’s name occurs
- page 211. Ruling (4), line 5 : substitute “ defined ” for “ deferred ”
- page 229. Paragraph 17, first line : substitute “ Curt ” for “ Kurt ”
- page 325. Ruling (2), line 2 : substitute “ PARADOXIDEN ” for “ PARADOXIDES ”



**INDEX**  
**TO AUTHORS OF APPLICATIONS DEALT WITH IN**  
**THE PRESENT VOLUME AND OF COMMENTS ON**  
**THOSE APPLICATIONS**

Abbott, R. T. ..	166—167	Beuret, H. .. ..	409
Adams, J. A. ..	55—56	Blackwelder, R. E. ..	146—147
Alexander, W. B. ..	352—355	Booker, F. W. .. ..	111
Altena, C. O. van R. ..	306	Bourgogne, J. .. ..	414
American Society of Ichthy- ologists and Herpetologists, Committee on Zoological Nomenclature of ..	130—131, 186—187	Bourne, W. R. P. ..	356—357
Arkell, W. J. ..	18—21, 228	Box, H. E. .. ..	406
Ashdown, L. W. .. ..	91	Bradley, J. C. .. ..	63
Axelrod, H. R. ..	94—96	Brown, F. M. .. ..	410
Baily, A. L., Jr. .. ..	164	Capart, A. .. ..	9
Baily, J. L., Jr. ..	159—162, 303—305	Chace, E. P. ..	164—165
Baker, H. B. .. ..	164, 306	Comstock, J. A. ..	56—62
Balfour-Browne, J. ..	133—135	Costa Lima, A. da ..	413
Bell, E. L. .. ..	45—50	Cox, L. R. .. ..	77—79, 227—228, 233, 261
Berger, L. A. .. ..	407	Deboutteville, Cl. D. ..	9—10
		Dietrich, W. O. ..	242—244
		Dollfus, R. Ph. .. ..	9

Donovan, D. T. ..	18—21, 230—231	Hemming, F.	v--ix, xvi--xx, xxii--xxv, 29—36, 66—68, 83—84, 92—98, 100—101, 104D—104H, 136 —138, 148—150, 152, 174—175, 175 —176, 207, 234— 239, 245—250, 276 —283, 309—312, 315—318, 344—345, 390—392, 399—414
dos Passos, C. F. ..	45—50, 412—413	Henningsmoen, G.	341, 381—383
Dowling, H. D. ..	190—192	Hering, E. M. ..	276, 407
Dusenbury, A. N., Jr.	169—172	Hill, Dorothy .. ..	111
Ellis, A. E. .. ..	294—301	Hölder, H. .. ..	22
Evans, W. H. ..	54—55	Hopkins, G. H. E. ..	200—204
Falla, R. A. .. ..	352—355	Howell, B. F. .. ..	342
Ferguson, D. C. .. ..	409	Hubbs, C. L. ..	132, 163
Ferreira d'Almeida, R. ..	413	Illg, P. L. .. ..	5—8
Field, W. E. .. ..	410	Imlay, R. W. ..	223—224
Fleming, C. A. ..	226—227, 352—355, 358	Jackson, T. H. B. .. ..	409
Follett, W. I. ..	130, 131	Jeletzky, J. A. ..	213—222
Forster, W. .. ..	406	Keen, Myra .. ..	167
Franclemont, J. G. ..	273—275	Klots, A. B. .. ..	56
Haas, O. H. .. ..	23		
Hall, W. H. .. ..	407		
Hayward, K. J. .. ..	413		

Knaben, N. . . . .	409	Munro, H. J. . . . .	405
Kraus, O. . . . .	165	Munroe, E. G. . . . .	411—412
Lemche, H. . . . .	302, 418	Murphy, R. C. . . . .	352—355
McDunnough, J. . . . .	406	Nicholson, A. J. . . . .	411
McLearn, F. H. . . . .	225	Opheim, M. . . . .	409
McMichael, D. F. . . . .	307—309	Paclt, J. . . . .	270—272, 275—276, 404—405
Marwick, J. . . . .	226—227, 258—260	Paulian, R. . . . .	408
Maxwell, W. G. H. . . . .	110—113	Peters, J. A. . . . .	130, 187—190
Maync, W. . . . .	224	Petersen, B. . . . .	408
Mayr, E. . . . .	56	Poulsen, C. . . . .	329—339, 372, 387—388
Melville, R. V. . . . .	28, 229, 233	Pruthi, H. M. . . . .	406
Mertens, R. . . . .	165, 182—184	Reeside, J. B., Jr. . . . .	223—224
Miller, R. R. . . . .	130	Rehder, H. A. . . . .	168
Modell, H. . . . .	309	Remington, C. L. . . . .	413—414
Moore, R. C. . . . .	418—419	Richter, Emma . . . . .	341
Morley, A. M. . . . .	408	Richter, R. . . . .	341
Morrison, J. P. E. . . . .	168	Riley, N. D. . . . .	406
Muir-Wood, Helen . . . . .	115		
Muller, S. W. . . . .	225		

Royal Anthropological Institute of Great Britain and Ireland .. .. .	168	Stubblefield, C. J. ..	342, 371, 385—386, 391—392
Sabrosky, C. W. ..	57—62, 146—147	Sylvester-Bradley, P. C.	23—24, 416—418
Savage, J. M. ..	131, 187	Teichert, C. .. ..	229—230
Schenck, H. G. .. ..	226	Tripp, R. .. ..	388
Schultz, L. P. ..	93—94	Tucker, D. W.	99, 124—128
Schwanwitsch, B. N. ..	408	Turner, J. R. ..	51—53
Serventy, D. L. ..	352—355	Verity, R. .. ..	407
Shaw, A. B. .. ..	372	Viette, P. E. L. .. ..	410
Sibatani, A. .. ..	406	Warren, B. C. S. .. ..	408
Smith, H. M. ..	131, 185—186	Watson, H. .. ..	306—307
Smith, Marian W. ..	168—169	Whittington, H. B. ..	341, 366—370, 384
Someren, V. G. L. van ..	413	Wilimovsky, N. J. ..	131, 186
Son, G. van .. ..	405	Zilch, A. .. ..	165
Spath, L. F. .. ..	25—27	Zimmermann, E. C. ..	410
Stallings, D. B. ..	51—53		
Storey, Margaret H.	97—98		
Strohecker, H. F. .. ..	135		

## SUBJECT INDEX

	<i>Page</i>
<i>Acanthaloma</i> Conrad, 1840 (Class Trilobita), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	363
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1093 .. .. .	364
ACANTHALOMINAE Prantl & Přibyl, 1949 (invalid because name of type genus suppressed under the Plenary Powers), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 236 .. .. .	365
<i>Acantholoma</i> Conrad, 1841 (an Erroneous Subsequent Spelling for <i>Acanthaloma</i> Conrad, 1840), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1094 .. .. .	364
<i>Acantholoma</i> Castelnau, 1843 (an Erroneous Subsequent Spelling for <i>Acanthaloma</i> Conrad, 1840), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1095 .. .. .	364
<i>acanthurus</i> Angelin, 1854, as published in the combination <i>Olenus ? acanthurus</i> (Class Trilobita), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1469 .. .. .	380
<i>Acinacea</i> Bory de St. Vincent, 1804 (Class Pisces), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	121
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1051 .. .. .	122
ACINACEIDAE McCulloch (A.R.), 1929 (invalid because name of type genus suppressed under the Plenary Powers), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 228 .. .. .	123
<i>Acinaces</i> Agassiz (J.L.R.), 1846 (Class Pisces), suppression of, under the Plenary Powers, for the purposes both of the Law of Priority and of the Law of Homonymy .. .. .	121
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1050 .. .. .	122
<i>Acinaces</i> Gerstaecker, 1858 (Class Insecta, Order Coleoptera), validation of, under the Plenary Powers, and addition of, to the <i>Official List of Generic Names in Zoology</i> with Name No. 1227, with <i>Acinaces lebasii</i> Gerstaecker, 1858, as type species .. .. .	122
gender of name .. .. .	122

	Page
<i>aryxna</i> Dyar, 1905, <i>Megathymus</i> (Class Insecta, Order Lepidoptera), determination of specimens to be accepted as having been the sole syntypes of, and interpretation of, by reference to lectotype selected from the above specimens by Skinner (H.) & Williams (R.C.) Jr. (1924) .. .. .	43
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1385 ..	44
<i>aspalacis</i> Jordan, 1929, as published in the combination <i>Amphipsylla aspalacis</i> (Class Insecta, Order Siphonaptera), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1439 .. .. .	199
<i>Aucella</i> Keyserling, 1846 (a junior objective synonym of <i>Buchia</i> Rouillier, 1845), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1058 .. .. .	212
AUCELLIDAE Lahusen, 1897 (Class Lamellibranchiata), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	211
placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 230 .. .. .	212
<i>auricularius</i> Spengler, 1793, as published in the combination <i>Unio auricularius</i> (Class Pelecypoda), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1457 .. .. .	290
<i>axelrodi</i> Schultz (L.P.), as published in the combination <i>Cheirodon axelrodi</i> (Class Pisces), ruled to have been published on 20th February, 1956, and therefore to be accorded priority over <i>cardinalis</i> Myers (G.S.) & Weitzman (S.H.), 21st February 1956, as published in the combination <i>Hyphessobrycon cardinalis</i> .. .. .	89—90
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1430, with endorsement to above effect .. .. .	90
Supplementary Resolution relating to Ruling regarding, given in <i>Opinion</i> 485 .. .. .	104A—104J
<i>brachythaerus</i> Sowerby (G.B.), 1844, as published in the combination <i>Producta brachythaerus</i> (Class Brachiopoda), suppression of, under the Plenary Powers, for the purposes both of the Law of Priority and of the Law of Homonymy ..	107
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 469 .. .. .	109
<i>brachythaerus</i> , in combination with <i>Productus</i> or its variant spelling <i>Producta</i> , all uses of, subsequent to Sowerby, 1844, and prior to Morris, 1845 (Class Brachiopoda), suppression of, under the Plenary Powers, for the purposes both of the Law of Priority and of the Law of Homonymy .. .. .	107
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 470 .. .. .	109
<i>brachythaerus</i> , as published in the combination <i>Productus brachythaerus</i> (Class Brachiopoda), validation of, under the Plenary Powers, as from Morris, 1845 and interpretation of, under the same Powers, by reference to specimen figured by Morris now preserved in British Museum (Natural History) .. .. .	107—108
designation of, under the Plenary Powers, to be the type species of <i>Terrakea</i> Booker, 1930 .. .. .	108
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1431 ..	108



	Page
<i>branchialis</i> Linnaeus, 1767, <i>Lernaea</i> (Class Crustacea, Order Copepoda), designation of, under the Plenary Powers, to be the type species of <i>Lernaecocera</i> (emend. of <i>Leerneocera</i> ) Blainville, 1822 .. .. .	3
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1382 ..	4
<i>Buchia</i> Rouillier, 1845 (Class Lamellibranchiata), rejection of request for the suppression of, under the Plenary Powers .. .. .	211
gender of name .. .. .	211
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1231, with <i>Avicula mosquensis</i> von Buch, 1844, as type species .. .. .	211
BUCHIIDAE COX (L.R.), 1953 (Class Lamellibranchiata), validation of, under the Plenary Powers and addition of, to the <i>Official List of Family-Group Names in Zoology</i> with Name No. 196, with <i>Buchia</i> Rouillier, 1845, as type genus .. ..	212
<i>bucklandii</i> Milne Edwards (H.), 1840, as published in the combination <i>Peltura</i> [sic] <i>bucklandii</i> (Class Trilobita), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1471 .. .. .	380
<i>caeneus</i> Buckman, 1925, as published in the combination <i>Caenisites caeneus</i> (Class Cephalopoda, Order Ammonoidea), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1383 .. .. .	17
<i>Caenisites</i> Buckman, 1925 (Class Cephalopoda, Order Ammonoidea), rejection of the proposed suppression of, under the Plenary Powers .. .. .	17
gender of name .. .. .	17
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1220, with <i>Caenisites caeneus</i> Buckman, 1925, as type species .. .. .	17
<i>caeruleocephala</i> Linnaeus, 1758, as published in the combination <i>Phalaena caeruleocephala</i> (Class Insecta, Order Lepidoptera), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1453 .. .. .	268
CAMACEA Blainville (H.M.D.), 1825 (an Invalid Original Spelling for CHAMIDAE Blainville), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 224 .. .. .	76
<i>cardinalis</i> Myers (G.S.) & Weitzman (S.H.), as published in the combination <i>Hypheosobrycon cardinalis</i> (Class Pisces), ruled to have been published on 21st, February 1956, and therefore to rank for priority below <i>axelrodi</i> Schultz (L.P.), 20th February 1956, as published in the combination <i>Cheirodon axelrodi</i> ..89—90	
supplementary Resolution relating to Ruling regarding, given in <i>Opinion</i> 485 .. .. .	104A—104J
<i>Chama</i> Linnaeus, 1758 (Class Pelecypoda), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1224, with <i>Chama lazarus</i> Linnaeus, 1758, as type species .. .. .	75
gender of name .. .. .	75
<i>Chama</i> da Costa, 1778 (a junior homonym of <i>Chama</i> Linnaeus, 1758), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1047 .. .. .	75

	Page
<i>Chama</i> Oken, 1815 (a junior homonym of <i>Chama</i> Linnaeus, 1758), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1048 .. .. .	75
<i>Chama</i> Mörch (O.A.L.), 1853 (a junior homonym of <i>Chama</i> Linnaeus, 1758), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1049 .. .. .	76
CHAMACEA Menke (C.T.), 1830 (an Invalid Original Spelling for CHAMIDAE), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 225 .. .. .	76
CHAMACIDAE d'Orbigny, 1839 (an Invalid Original Spelling for CHAMIDAE), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 226 .. .. .	76
CHAMADAE Fleming (J.), 1828 (an Invalid Original Spelling for CHAMIDAE Fleming, a nominal family-group taxon established by Fleming without knowledge of the prior establishment of the same nominal taxon by Blainville in 1825), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 227 .. .. .	76
CHAMIDAE (correction of CAMACEA) Blainville (H.M.D.), 1825 (Class Pelecypoda), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 193, with <i>Chama</i> Linnaeus, 1758, as type genus .. .. .	76
<i>conradi</i> Castelnau, 1843, as published in the combination <i>Acantholoma</i> [sic] <i>conradi</i> (Class Trilobita), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	363
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 490 .. .. .	365
Curtis (J.), 1837, <i>A Guide to an Arrangement of British Insects; being a Catalogue of all the named species hitherto discovered in Great Britain and Ireland</i> , (Ed. 2), ruled that author did not select type species for genera enumerated in .. .. .	145
title of, placed on the <i>Official List of Works Approved as Available for Zoological Nomenclature</i> with Title No. 31, with endorsement as above .. .. .	145
<i>cyprinacea</i> Linnaeus, 1758, as published in the combination <i>Lernaea cyprinacea</i> (Class Crustacea, Order Copepoda), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1381 .. .. .	4
<i>daea</i> Dampf, 1910, <i>Palaeopsylla</i> (Class Insecta, Order Siphonaptera), interpretation of, under the Plenary Powers, by reference to certain specimens described and figured by Dampf in his description of the species so named .. .. .	199
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1438 .. .. .	199
<i>Declarations</i> containing interpretations of provisions in the <i>Règles</i> , see <i>Règles Internationales de la Nomenclature Zoologique</i>	

<i>Diloba</i> Boisduval, 1840 (Class Insecta, Order Lepidoptera), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1233, with <i>Phalaena caeruleocephala</i> Linnaeus, 1758, as type species . . . . .	267
gender of name . . . . .	267
<b>DILOBINAE</b> Aurivillius (C.), 1889 (Class Insecta, Order Lepidoptera), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 198, with <i>Diloba</i> Boisduval, 1840, as type genus . . . . .	269
<i>Elaphe</i> Fitzinger, 1833 (Class Reptilia), ruled, under the Plenary Powers, not to be rejected in favour of <i>Gonyosoma</i> Wagler, 1828, by any specialist who on taxonomic grounds considers that their respective type species are congeneric with one another . . . . .	181
gender of name . . . . .	181
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1229, <i>Elaphe parreyssii</i> Fitzinger, 1833, as type species . . . . .	181
<i>Entomolithus</i> Gesner, 1758 (a name published in a work rejected for nomenclatorial purposes), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1084 . . . . .	326
<i>Entomolithus</i> Linnaeus, 1759 (Class Trilobita), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy . . . . .	325
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1085 . . . . .	327
<i>Entomostracites</i> Wahlenberg, [1821] (Class Trilobita), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy . . . . .	325
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1086 . . . . .	327
<i>Episema</i> Ochsenheimer, 1816 (Class Insecta, Order Lepidoptera), all previous type selections for, set aside under the Plenary Powers, and designation, under those Powers, of <i>Phalaena glaucina</i> Esper, [1789], to be the type species of . . . . .	267
gender of name . . . . .	268
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1234 . . . . .	268
<i>Episema</i> Cope & Jordan, 1877 (a junior homonym of <i>Episema</i> Ochsenheimer, 1816), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1063 . . . . .	268
<b>EPISEMIDAE</b> Guénée (A.), 1852 (Class Insecta, Order Lepidoptera), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 199, with <i>Episema</i> Ochsenheimer, 1816, as type genus . . . . .	269

	Page
<i>Euasteroceras</i> Donovan, 1953 (Class Cephalopoda, Order Ammonoidea), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1221, with <i>Ammonites turneri</i> Sowerby (J. de C.), 1824, as type species (for use by those specialists who consider on taxonomic grounds that type species of genus so named is generically distinct from type species of <i>Caenisites</i> Buckman, 1925) .. .. .	17
gender of name .. .. .	17
<i>fluviatilis</i> Schumacher, 1816, as published in the combination <i>Margaritifera</i> [sic] <i>fluviatilis</i> (a junior objective synonym of <i>margaritifera</i> Linnaeus, 1758, as published in the combination <i>Mya margaritifera</i> ), placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 481 .. .. .	292—293
GEMPYLINAE Goode & Bean, 1895 (Class Pisces), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 194, with <i>Gempylus</i> Cuvier (G.L.C.F.D.), 1829, as type genus .. .. .	123
<i>Gempylus</i> Cuvier (G.L.C.F.D.), 1829 (Class Pisces), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1226, with <i>Gempylus serpens</i> Cuvier (G.L.C.F.D.), 1829, as type species .. .. .	121
gender of name .. .. .	121
<i>gibbosus</i> Wahlenberg, [1821], <i>Entomostracites</i> (Class Trilobita), designation of, under the Plenary Powers, to be the type species of <i>Olenus</i> Dalman, [1827] ..	325
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1459 ..	326
<i>glaucina</i> Esper, [1789], <i>Phalaena</i> (Class Insecta, Order Lepidoptera), designation of, under the Plenary Powers, to be the type species of <i>Episema</i> Ochsenheimer, 1816 ..	267
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1454 ..	268
<i>Gonyosoma</i> Wagler, 1828 (Class Reptilia), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1230, with <i>Gonyosoma viride</i> Wagler, 1828, as type species (for use only by those specialists who on taxonomic grounds consider that its type species is not congeneric with that of <i>Elaphe</i> Fitzinger, 1833) ..	181
gender of name .. .. .	181
<i>granulata</i> Sowerby (J. de C.), 1827, <i>Turritella</i> (Class Gastropoda), designation of, under the Plenary Powers, to be the type species of <i>Torquesia</i> Douvillé, 1929 ..	257
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1451 ..	257
<i>granulosa</i> Deshayes, 1832, as published in the combination <i>Turritella granulosa</i> (Class Gastropoda), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1452 .. .. .	257
<i>Heteromorpha</i> Hübner, 1806 (invalid because included in a work rejected for nomenclatorial purposes), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1061 .. .. .	268

	Page
<i>Heteromorpha</i> Hübner, 1822 (Class Insecta, Order Lepidoptera), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	267
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1062 .. .. .	268
<i>lazarus</i> Linnaeus, 1758, as published in the combination <i>Chama lazarus</i> (Class Pelecypoda), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1429 .. .. .	75
<i>lebasii</i> Gerstaecker, 1858, as published in the combination <i>Acinaces lebasii</i> (Class Insecta, Order Coleoptera), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1433 .. .. .	122
<i>Leonaspis</i> Richter (R.) & Richter (E.), 1917 (Class Trilobita), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1241, with <i>Odontopleura leonhardi</i> Barrande, 1846, as type species .. .. .	364
gender of name .. .. .	364
<i>leonhardi</i> Barrande, 1846, as published in the combination <i>Odontopleura leonhardi</i> (Class Trilobita), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1466 .. .. .	364
<i>Lernaea</i> Linnaeus, 1758 (Class Crustacea, Order Copepoda), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1218, with <i>Lernaea cyprinacea</i> Linnaeus, 1758, as type species .. .. .	3
gender of name .. .. .	3
<i>Lernaeocera</i> , emendation to, of <i>Lerneocera</i> Blainville, 1822 (Class Crustacea, Order Copepoda), validation of, under the Plenary Powers .. .. .	3
all previous type selections for, set aside under the Plenary Powers, and designation, under those Powers, of <i>Lernaea branchialis</i> Linnaeus, 1767, to be the type species of .. .. .	3
gender of name .. .. .	4
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1219 ..	4
<i>Lerneocera</i> Blainville, 1822 (Class Crustacea, Order Copepoda), emendation of, to <i>Lernaeocera</i> , validation of, under the Plenary Powers .. .. .	3
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 996 .. .. .	4
<i>Limnaea</i> Poli, 1791 (a junior objective synonym of <i>Unio</i> Philipsson, 1788), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1064 .. .. .	291
<i>Limnaea</i> Blainville, 1823 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1068 .. .. .	291

	Page
<i>Limnaeus</i> Pfeiffer (C.), 1821 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1069 .. .. .	291
<i>Limnea</i> Fleming, 1828 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1070 .. .. .	291
<i>Limneus</i> Draparnaud, [1801] (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1071 .. .. .	292
<i>Limnium</i> Oken, 1815 (a name published in a work rejected for nomenclatorial purposes) placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1066 .. .. .	291
<i>Limnoea</i> Gourdon, 1889 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1072 .. .. .	292
<i>Limnoeus</i> Shuttleworth, 1872 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1073 .. .. .	292
<i>Luscoscombrus</i> Van der Hoeven, 1855 (a junior objective synonym of <i>Gempylus</i> Cuvier (G.L.C.F.D.), 1829) placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1052 .. .. .	122
<i>Lymnaea</i> Lamarck, 1799 (Class Pelecypoda), ruled to be the Valid Original Spelling, to exclusion of the Second Original Spelling <i>Lymnoea</i> through action by Lamarck as First Reviser in 1801 .. .. .	289
gender of name .. .. .	290
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1237, with <i>Helix stagnalis</i> Linnaeus, 1758, as type species .. .. .	290
<i>Lymnaea</i> Oken, 1815 (a name published in a work rejected for nomenclatorial purposes), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1067 .. .. .	291
LYMNAEADAE Gray (J.E.), 1824 (an Invalid Original Spelling for LYMNAEIDAE), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 232 .. .. .	293
LYMNAEIDAE (correction of LYMNIDIA) Rafinesque, 1815 (Class Pelecypoda), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 200, with <i>Lymnaea</i> Lamarck, 1799, as type genus .. .. .	293
<i>Lymnaeus</i> Cuvier (G.L.C.F.D.), 1817 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1074 .. .. .	292

	Page
<i>Lymnea</i> Link, 1807 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1075 .. .. .	292
<i>Lymneus</i> Férussac, 1812 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1076 .. .. .	292
LYMNIIDIA Rafinesque, 1815 (an Invalid Original Spelling for LYMNAEIDAE), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 231 .. .. .	293
<i>Lymnium</i> Oken, 1815 (a name published in a work rejected for nomenclatorial purposes), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1081 .. .. .	292
<i>Lymnoea</i> Lamarck, 1799 (Class Pelecypoda), ruled to be an Invalid Original Spelling for <i>Lymnaea</i> , through action by Lamarck as First Reviser in 1801 .. .. .	289
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1065 .. .. .	291
<i>Lymnoea</i> Suter, 1913 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1077 .. .. .	292
<i>Lymnoeus</i> Michelin, 1831 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1078 .. .. .	292
<i>Lymnula</i> Rafinesque, 1819 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1079 .. .. .	292
<i>Lymnus</i> Montfort, 1810 (an Erroneous Subsequent Spelling for <i>Lymnaea</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1080 .. .. .	292
<i>Margaritana</i> Schumacher, 1817 (a junior objective synonym of <i>Margaritifera</i> (emend. of <i>Margartifera</i> ) Schumacher, 1816), placed on the <i>Official Index of Rejected and Generic Names in Zoology</i> with Name No. 1082 .. .. .	292
MARGARITANINAE Ortmann, 1910 (Class Pelecypoda), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	289
placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 233 .. .. .	294
<i>Margaritifera</i> , acceptance of emendation to, of <i>Margartifera</i> Schumacher, 1816 (an Invalid Original Spelling) (Class Pelecypoda) .. .. .	289
gender of name .. .. .	290
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1236, with <i>Mya margaritifera</i> Linnaeus, 1758, as type species .. .. .	290

	Page
<i>margaritifera</i> Linnaeus, 1758, as published in the combination <i>Mya margaritifera</i> (Class Pelecypoda), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1456 .. .. .	290
MARGARITIFERIDAE Haas (F.), 1940 (Class Pelecypoda), validation of, under the Plenary Powers and addition of, to the <i>Official List of Family-Group Names in Zoology</i> with Name No. 202, with <i>Margaritifera</i> (emend. of <i>Margartifera</i> ) Schumacher, 1816, as type genus (for use by those specialists who consider on taxonomic grounds that <i>Margaritifera</i> Schumacher, 1816, and <i>Unio</i> Philipsson, 1788, are referable to different family-group taxa) .. .. .	293
<i>Margartifera</i> Schumacher, 1816 (Class Pelecypoda), ruled to be an Invalid Original Spelling, and consequent acceptance of emendation of, to <i>Margaritifera</i> .. ..	289
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1083 .. .. .	292
MEGATHYMIDAE Comstock (J.H.) & Comstock (A.B.), 1895 (Class Insecta, Order Lepidoptera), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 192, with <i>Megathymus</i> Scudder, 1872, as type genus .. .. .	44
<i>Megathymus</i> Scudder, 1872 (Class Insecta, Order Lepidoptera), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1222, with <i>Eudamus ? yuccae</i> Boisduval & Leconte, [1837], as type species .. .. .	43
<i>mosquensis</i> von Buch, 1844, as published in the combination <i>Avicula mosquensis</i> (Class Lamellibranchiata), as defined by the lectotype selected by Pavlov, (1907), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1440 .. ..	211
<i>munda</i> Kuhl, 1820, as published in the combination <i>Proc[ellaria] munda</i> (Class Aves), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	351
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 484 .. .. .	351
<i>munda</i> Kuhl, 1820, as published in the combination <i>Nectris munda</i> (Class Aves), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	351
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 485 .. .. .	351
<i>neumoegeni</i> Edwards (W.H.), 1882, as published in the combination <i>Megathymus neumoeni</i> (Class Insecta, Order Lepidoptera), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1386 .. .. .	44
<i>notha</i> Bory de St. Vincent, 1804, as published in the combination <i>Acinacea notha</i> (Class Pisces), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	121
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 471 .. .. .	122—123





Official Index of Rejected and Invalid Generic Names in Zoology, names placed on (contd.) :	Page
<i>Margaritifera</i> Schumacher, 1816 .. .. .	292
<i>Olenus</i> Dejean, 1835 .. .. .	327
<i>Olenus</i> Thomson, 1857 .. .. .	327
<i>Paradoxides</i> Motschulsky, 1851 .. .. .	327
<i>Paradoxites</i> Goldfuss, 1843 .. .. .	327
<i>Peltoura</i> Milne Edwards (H.), 1840 .. .. .	380
<i>Turbinella</i> Bory de St. Vincent, [1827] .. .. .	158
<i>Turbinellum</i> Webb, 1948 .. .. .	158
<i>Turbinellus</i> Lamarck, 1801 .. .. .	158
<i>Turbonella</i> Webb, 1948 .. .. .	158
<i>Xancus</i> [Röding], 1798 .. .. .	158

Official Index of Rejected and Invalid Specific Names in Zoology, names placed on :

<i>brachythaerus</i> Sowerby (G.B.), 1844, <i>Producta</i> .. .. .	109
<i>brachythaerus</i> , all uses of, subsequent to Sowerby, 1844, and prior to Morris, 1845 <i>Productus</i> or <i>Producta</i> .. .. .	109
<i>conradi</i> Castelnau, 1843, <i>Acantholoma</i> [sic] .. .. .	365
<i>fluviatilis</i> Schumacher, 1816, <i>Margaritifera</i> [sic] .. .. .	292—293
<i>munda</i> Kuhl, 1820, <i>Proc[ellaria]</i> .. .. .	351
<i>munda</i> Kuhl, 1820, <i>Nectris</i> .. .. .	351
<i>notha</i> Bory de St. Vincent, 1804, <i>Acinacea</i> .. .. .	122—123
<i>paradoxus</i> Linnaeus, 1759, <i>Entomolithus</i> .. .. .	327
<i>sibirica</i> Wagner, 1901, <i>Typhlopsylla</i> .. .. .	200
<i>spinosa</i> Conrad, 1841, <i>Acantholoma</i> [sic] .. .. .	365
<i>tessini</i> Brongniart, 1822, <i>Paradoxides</i> .. .. .	327
<i>trimacula</i> [Denis & Schiffermüller], 1775, <i>Phalaena</i> .. .. .	269
<i>tuberculatus</i> Conrad, 1840, <i>Acidaspis</i> .. .. .	365

Official List of Family-Group Names in Zoology, names placed on :

BUCHIIDAE Cox (L.R.), 1953 .. .. .	212
CHAMIDAE (correction of CAMACEA) Blainville (H.M.D.), 1825 .. .. .	76
DILOBINAE Aurivillius (C.), 1889 .. .. .	269
EPISEMIDAE Guénée (A.), 1852 .. .. .	269
GEMPYLINAE Goode & Bean, 1895 .. .. .	123
LYMNAEIDAE (correction of LYMNIDIA) Rafinesque, 1815 .. .. .	293
MARGARITIFERIDAE Haas (F.), 1940 .. .. .	293
MEGATHYMIDAE Comstock (J.H.) & Comstock (A.B.), 1895 .. .. .	44
OLENIDAE Burmeister, 1843 .. .. .	327
PARADOXIDIDAE (correction of PARADOXIDES) Corda (A.J.C.), 1847 .. .. .	328
PELTURINAE (correction of PELTURIDES) Corda (A.J.C.), 1847 .. .. .	380
PIERIDAE (correction of PIERIDES) Duponchel, 1832 .. .. .	397
TURBINELLIDAE Swainson, 1840 .. .. .	158
UNIONIDAE Fleming (J.), 1828 .. .. .	293

Official List of Generic Names in Zoology, names placed on :

<i>Acinaces</i> Gerstaecker, 1858 .. .. .	122
<i>Buchia</i> Rouillier, 1845 .. .. .	211
<i>Caenisites</i> Buckman, 1925 .. .. .	17
<i>Chama</i> Linnaeus, 1758 .. .. .	75
<i>Diloba</i> Boisduval, 1840 .. .. .	267

## Official List of Generic Names in Zoology, names placed on (contd.) :

<i>Elaphe</i> Fitzinger, 1833 .. .. .	181
<i>Episema</i> Ochseneimer, 1816 .. .. .	268
<i>Euasteroceras</i> Donovan, 1953 .. .. .	17
<i>Gempylus</i> Cuvier (G.L.C.F.D.), 1829 .. .. .	121
<i>Gonyosoma</i> Wagler, 1828 .. .. .	181
<i>Leonaspis</i> Richter (R.) & Richter (E.), 1917 .. .. .	364
<i>Lernaea</i> Linnaeus, 1758 .. .. .	3
<i>Lernaeocera</i> (emend. of <i>Lerneocera</i> ) Blainville, 1822 .. .. .	4
<i>Lymnaea</i> Lamarck, 1799 .. .. .	290
<i>Margaritifera</i> (emend. of <i>Margaritifera</i> ) Schumacher, 1816 .. .. .	290
<i>Megathymus</i> Scudder, 1872 .. .. .	43
<i>Olenus</i> Dalman, [1827] .. .. .	326
<i>Parabolina</i> Salter, 1849 .. .. .	326
<i>Paradoxides</i> Brongniart, 1822 .. .. .	325—326
<i>Peltura</i> (emend. of <i>Peltoura</i> ) Milne Edwards (H.), 1840 .. .. .	379
<i>Protopeltura</i> Brögger, 1882 .. .. .	379
<i>Terrakea</i> Booker, 1930 .. .. .	108
<i>Torquesia</i> Douvillé, 1929 .. .. .	257
<i>Turbinella</i> Lamarck, 1799 .. .. .	157
<i>Unio</i> Philipsson, 1788 .. .. .	290

## Official List of Specific Names in Zoology, names already placed on, completion of entries concerning :

<i>stagnalis</i> Linnaeus, 1758, <i>Helix</i> .. .. .	291
---	-----

## Official List of Specific Names in Zoology, names placed on :

<i>acanthurus</i> Angelin, 1854, <i>Olenus</i> ? .. .. .	380
<i>aryxna</i> Dyar, 1905, <i>Megathymus</i> .. .. .	44
<i>aspalacis</i> Jordan, 1929, <i>Amphipsylla</i> .. .. .	199
<i>auricularius</i> Spengler, 1793, <i>Unio</i> .. .. .	290
<i>axelrodi</i> Schultz (L.P.), 1956, <i>Cheirodon</i> .. .. .	90
<i>brachythaerus</i> as from Morris, 1845, <i>Productus</i> .. .. .	108
<i>branchialis</i> Linnaeus, 1767, <i>Lernaea</i> .. .. .	4
<i>bucklandii</i> Milne Edwards (H.), 1840, <i>Peltura</i> [sic] .. .. .	380
<i>caeneus</i> Buckman, 1925, <i>Caenisites</i> .. .. .	17
<i>caeruleocephala</i> Linnaeus, 1758, <i>Phalaena</i> .. .. .	268
<i>cyprinacea</i> Linnaeus, 1758, <i>Lernaea</i> .. .. .	4
<i>daea</i> Dampf, 1910, <i>Palaeopsylla</i> .. .. .	199
<i>gibbosus</i> Wahlenberg, [1821], <i>Entomostracites</i> .. .. .	326
<i>glaucina</i> Esper, [1789], <i>Phalaena</i> .. .. .	268
<i>granulata</i> Sowerby (J. de C.), 1827, <i>Turritella</i> .. .. .	257
<i>granulosa</i> Deshayes, 1832, <i>Turritella</i> .. .. .	257
<i>lazarus</i> Linnaeus, 1758, <i>Chama</i> .. .. .	75
<i>lebasii</i> Gerstaecker, 1858, <i>Acinaces</i> .. .. .	122
<i>leonhardi</i> Barrande, 1846, <i>Odontopleura</i> .. .. .	364
<i>margaritifera</i> Linnaeus, 1758, <i>Mya</i> .. .. .	290
<i>mosquensis</i> von Buch, 1844, <i>Avicula</i> .. .. .	211
<i>neumoegeni</i> Edwards (W.H.), 1882, <i>Megathymus</i> .. .. .	44
<i>oxycephalus</i> Boie, 1827, <i>Coluber</i> .. .. .	182
<i>paradoxissimus</i> Wahlenberg, [1821], <i>Entomostracites</i> .. .. .	326
<i>pictorum</i> Linnaeus, 1758, <i>Mya</i> .. .. .	290
<i>praecursor</i> Westergaard, 1909, <i>Peltura</i> .. .. .	380
<i>pyrum</i> Linnaeus, 1767, <i>Voluta</i> .. .. .	157

	Page
<i>Official List of Specific Names in Zoology, names placed on (contd.) :</i>	
<i>quatuorlineatus</i> Lacépède, 1789, <i>Coluber</i> .. .. .	182
<i>sauromates</i> Pallas, [1814], <i>Coluber</i> .. .. .	182
<i>scarabaeoides</i> Wahlenberg, [1821], <i>Entomostracites</i> .. .. .	380
<i>serpens</i> Cuvier (G.L.C.F.D.), 1829, <i>Gempylus</i> .. .. .	122
<i>spinulosus</i> Wahlenberg, [1821], <i>Entomostracites</i> .. .. .	326
<i>tuberculatus</i> Hall (J.W.), 1859, <i>Acidaspis</i> .. .. .	364
<i>turneri</i> Sowerby (J. de C.), 1824, <i>Ammonites</i> .. .. .	18
<i>yuccae</i> Boisduval & Leconte, [1837], <i>Eudamus</i> ? .. .. .	44
<i>Official List of Works Approved as Available for Zoological Nomenclature, titles of works placed on :</i>	
Curtis (J.), 1837, <i>A Guide to an Arrangement of British Insects ; being a Catalogue of all the named species hitherto discovered in Great Britain and Ireland</i> (Ed.2)	145
OLENIDAE Burmeister, 1843 (Class Trilobita), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 203, with <i>Olenus</i> Dalman, [1827], as type genus .. .. .	327
<i>Olenus</i> Dalman, [1827] (Class Trilobita), all previous type selections for, set aside under the Plenary Powers, and designation, under those Powers, of <i>Entomostracites gibbosus</i> Wahlenberg, [1821], to be the type species of .. .. .	325
gender of name .. .. .	326
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1239 ..	326
<i>Olenus</i> Dejean, 1835 (a junior homonym of <i>Olenus</i> Dalman, [1827]), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1087 .. .. .	327
<i>Olenus</i> Thomson, 1857 (a junior homonym of <i>Olenus</i> Dalman, [1827]), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1088 .. .. .	327
<i>oxycephalus</i> Boie, 1827, as published in the combination <i>Coluber oxycephalus</i> (Class Reptilia), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1435 .. .. .	182
<i>Parabolina</i> Salter, 1849 (Class Trilobita), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1240, with <i>Entomostracites spinulosus</i> Wahlenberg, [1821], as type species .. .. .	326
gender of name .. .. .	326
PARADOXIDEN Emmrich (H.[F.]), 1844 (Class Trilobita), ruled to be based on a misidentified type genus and therefore to possess no status in zoological nomenclature .. .. .	325
placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 234 .. .. .	328

PARADOXIDES Corda (A.J.C.), 1847 (an Invalid Original Spelling for PARADOXIDIDAE), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 235 .. .. .	328
<i>Paradoxides</i> Brongniart, 1822 (Class Trilobita), placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1238, with <i>Entomostracites paradoxissimus</i> Wahlenberg, [1821], as type species .. .. .	325—326
gender of name .. .. .	325
<i>Paradoxides</i> Motschulsky, 1851 (a junior homonym of <i>Paradoxides</i> Brongniart, 1822), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1089 .. .. .	327
PARADOXIDIDAE (correction of PARADOXIDES) Corda (A.J.C.), 1847 (Class Trilobita), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 204, with <i>Paradoxides</i> Brongniart, 1822, as type genus .. .. .	328
<i>paradoxissimus</i> Wahlenberg, [1821], <i>Entomostracites</i> (Class Trilobita), definition of, by lectotype selected by Poulsen (C.), (1956) .. .. .	326
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1458 ..	326
<i>Paradoxites</i> Goldfuss, 1843 (an Invalid Emendation of <i>Paradoxides</i> Brongniart, 1822), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1090 .. .. .	327
<i>paradoxus</i> Linnaeus, 1759, as published in the combination <i>Entomolithus paradoxus</i> (Class Trilobita), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	325
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 482 .. .. .	327
<i>Peltoura</i> Milne Edwards (H.), 1840 (Class Trilobita), emendation of, to <i>Peltura</i> , validation of, under the Plenary Powers .. .. .	379
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1096 .. .. .	380
<i>Peltura</i> , emendation to, of <i>Peltoura</i> Milne Edwards (H.), 1840 (Class Trilobita), validation of, under the Plenary Powers .. .. .	379
gender of name .. .. .	379
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1243, with <i>Entomostracites scarabaeoides</i> Wahlenberg, [1821], as type species ..	379
PELTURIDES Corda (A.J.C.), 1847 (an Invalid Original Spelling for PELTURINAE), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 237 .. .. .	381
PELTURINAE (correction of PELTURIDES) Corda (A.J.C.), 1847 (Class Trilobita), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 205, with <i>Peltura</i> (emend. of <i>Peltoura</i> ) Milne Edwards (H.), 1840, as type genus ..	380

	Page
<i>pictorum</i> Linnaeus, 1758, <i>Mya</i> (Class Pelecypoda), designation of, under the Plenary Powers, to be the type species of <i>Unio</i> Philipsson, 1788 .. .. .	289
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1455 ..	290
PIERIDAE, correction to, of PIERIDES Duponchel, 1832 (Class Insecta, Order Lepidoptera), validation of, under the Plenary Powers .. .. .	397
placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 206, with <i>Pieris</i> Schrank, 1801, as type genus .. .. .	397
PIERIDES Duponchel, 1832 (an Invalid Original Spelling for PIERIDAE), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 238 .. .. .	397
PIERIDIDAE Reuter, 1897 (Class Insecta, Order Lepidoptera), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	397
placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 240 .. .. .	398
PIERIDINA Herrich-Schaeffer, 1853 (an Invalid Original Spelling for PIERIDIDAE), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 239 .. .. .	398
<i>praecursor</i> Westergaard, 1909, <i>Peltura</i> (Class Trilobita), designation of, under the Plenary Powers, to be the type species of <i>Protopeltura</i> Brögger, 1882 .. .. .	379
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1468 ..	380
<i>Protopeltura</i> Brögger, 1882 (Class Trilobita), all previous type selections for, set aside under the Plenary Powers, and <i>Peltura praecursor</i> Westergaard, 1909, designated to be the type species of .. .. .	379
gender of name .. .. .	379
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1242 ..	379
<i>pyrum</i> Linnaeus, 1767, as published in the combination <i>Voluta pyrum</i> (Class Gastropoda), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1434 .. .. .	157
<i>quatuorlineatus</i> Lacépède, 1789, as published in the combination <i>Coluber quatuorlineatus</i> (Class Reptilia), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1436 .. .. .	182
 <i>Règles Internationales de la Nomenclature Zoologique</i> , interpretation of provisions in:	
clarification of procedure to be adopted by the International Commission on Zoological Nomenclature when at the conclusion of a vote on an application for use of its Plenary Powers it is found that less than a two-thirds majority of its members has voted in favour of application ( <i>Declaration 34</i> ) .. .. .	iii—iv
clarification of meaning of expression "syntype" as used in the <i>Règles</i> ( <i>Declaration 35</i> ) .. .. .	xv—xvi

<i>sauromates</i> Pallas, [1814], as published in the combination <i>Coluber sauromates</i> (Class Reptilia), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1437 .. .. .	182
<i>scarabaeoides</i> Wahlenberg, [1821], as published in the combination <i>Entomostracites scarabaeoides</i> (Class Trilobita), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1470 .. .. .	380
<i>serpens</i> Cuvier (G.L.C.F.D.), 1829, as published in the combination <i>Gempylus serpens</i> (Class Pisces), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1432 .. .. .	122
<i>sibirica</i> Wagner, 1901, as published in the combination <i>Typhlopsylla sibirica</i> (a junior secondary homonym of <i>sibirica</i> Wagner, 1909, as published in the combination <i>Ctenopsylla sibirica</i> ), placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 472 .. .. .	200
<i>spinosa</i> Conrad, 1841, as published in the combination <i>Acantholoma</i> [sic] <i>spinosa</i> (Class Trilobita), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	363
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 489 .. .. .	365
<i>spinulosus</i> Wahlenberg, [1821], as published in the combination <i>Entomostracites spinulosus</i> (Class Trilobita), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1460 .. .. .	326
<i>stagnalis</i> Linnaeus, 1758, as published in the combination <i>Helix stagnalis</i> (Class Pelecypoda), completion of entry relating to, on the <i>Official List of Specific Names in Zoology</i> stating that species so named is type species of <i>Lymnaea</i> Lamarck, 1799 (completion of <i>Opinion</i> 336) .. .. .	291
<i>Terrakea</i> Booker, 1930 (Class Brachiopoda), all previous type selections for, set aside under the Plenary Powers, and designation, under those Powers, of <i>Productus brachythaerus</i> Morris, 1845, to be the type species of .. .. .	108
gender of name .. .. .	108
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1225 ..	108
<i>tessini</i> Brongniart, 1822, as published in the combination <i>Paradoxides tessini</i> (a junior objective synonym of <i>paradoxissimus</i> Wahlenberg, [1821], as published in the combination <i>Entomostracites paradoxissimus</i> ), placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 483 ..	327
<i>Torquesia</i> Douvillé, 1929 (Class Gastropoda), all previous type selections for, set aside under the Plenary Powers, and designation under those Powers of <i>Turritella granulata</i> Sowerby (J. de C.), 1827, to be the type species of .. .. .	257
gender of name .. .. .	257
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1232 ..	257

	Page
<i>trimacula</i> [Denis & Schiffermüller], 1775, as published in the combination <i>Phalaena trimacula</i> (Class Insecta, Order Lepidoptera), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy .. .. .	267
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 480 .. .. .	269
<i>tuberculatus</i> Conrad, 1840, as published in the combination <i>Acidaspis tuberculatus</i> (Class Trilobita), suppression of, under the Plenary Powers, for the purposes both of the Law of Priority and of the Law of Homonymy .. .. .	363
placed on the <i>Official Index of Rejected and Invalid Specific Names in Zoology</i> with Name No. 491 .. .. .	365
<i>tuberculatus</i> Hall (J.W.), 1859, as published in the combination <i>Acidaspis tuberculatus</i> (Class Trilobita), validation of, as a new name, under the Plenary Powers .. .. .	363
placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1467 ..	364
<i>Turbinella</i> Lamarck, 1799 (Class Gastropoda), validation of, under the Plenary Powers .. .. .	157
gender of name .. .. .	157
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1228, with <i>Voluta pyrum</i> Linnaeus, 1767, as type species .. .. .	157
<i>Turbinella</i> Bory de St. Vincent, [1827] (a junior homonym of <i>Turbinella</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1053 .. .. .	158
TURBINELLIDAE Swainson, 1840 (Class Gastropoda), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 195, with <i>Turbinella</i> Lamarck, 1799, as type genus .. .. .	158
<i>Turbinellum</i> Webb, 1948 (an Erroneous Subsequent Spelling for <i>Turbinella</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1054 .. .. .	158
<i>Turbinellus</i> Lamarck, 1801 (an Invalid Emendation of <i>Turbinella</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1055 .. .. .	158
<i>Turbonella</i> Webb, 1948 (an Erroneous Subsequent Spelling for <i>Turbinella</i> Lamarck, 1799), placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1056 .. .. .	158
<i>turneri</i> Sowerby (J. de C.), 1824, as published in the combination <i>Ammonites turneri</i> (Class Cephalopoda, Order Ammonoidea), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1384 .. .. .	18



## Page

<i>Unio</i> Philipsson, 1788 (Class Pelecypoda), all previous type selections for, set aside under the Plenary Powers, and designation, under those Powers of <i>Mya pictorum</i> Linnaeus, 1758, to be the type species of .. .. .	289
gender of name .. .. .	290
placed on the <i>Official List of Generic Names in Zoology</i> with Name No. 1235 ..	290
UNIONIDAE Fleming (J.), 1828 (Class Pelecypoda), placed on the <i>Official List of Family-Group Names in Zoology</i> with Name No. 201, with <i>Unio</i> Philipsson, 1788, as type genus .. .. .	293
XANCIDAE Woodring, 1928 (invalid because name of type genus suppressed under the Plenary Powers), placed on the <i>Official Index of Rejected and Invalid Family-Group Names in Zoology</i> with Name No. 229 .. .. .	158
<i>Xancus</i> [Röding], 1798 (Class Gastropoda), suppression of, under the Plenary Powers, for the purposes of the Law of Priority but not for those of the Law of Homonymy	157
placed on the <i>Official Index of Rejected and Invalid Generic Names in Zoology</i> with Name No. 1057 .. .. .	158
<i>yuccae</i> Boisduval & Leconte, [1837], as published in the combination <i>Eudamus ? yuccae</i> (Class Insecta, Order Lepidoptera), placed on the <i>Official List of Specific Names in Zoology</i> with Name No. 1387 .. .. .	44



**PARTICULARS OF DATES OF PUBLICATION OF THE SEVERAL PARTS IN WHICH THE PRESENT VOLUME WAS PUBLISHED**

<i>Part No.</i>	<i>Page Nos.</i>	<i>Contents of Part</i>	<i>Date of Publication</i>
1	1—14	<i>Opinion</i> 481	3rd September 1957
2	i—xii	<i>Declaration</i> 34	3rd September 1957
3	15—40	<i>Opinion</i> 482	20th September 1957
4	xiii—xxvi	<i>Declaration</i> 35	10th October 1957
5	41—72	<i>Opinion</i> 483	10th October 1957
6	73—86	<i>Opinion</i> 484	10th October 1957
7	87—104	<i>Opinion</i> 485	1st November 1957
8	105—118	<i>Opinion</i> 486	1st November 1957
9	119—142	<i>Opinion</i> 487	1st November 1957
10	143—154	<i>Opinion</i> 488	15th November 1957
11	155—178	<i>Opinion</i> 489	15th November 1957
12	179—196	<i>Opinion</i> 490	15th November 1957
13	197—208	<i>Opinion</i> 491	15th November 1957
14	209—254	<i>Opinion</i> 492	10th December 1957
15	255—264	<i>Opinion</i> 493	10th December 1957
16	265—286	<i>Opinion</i> 494	10th December 1957
17	287—322	<i>Opinion</i> 495	10th December 1957
18	323—348	<i>Opinion</i> 496	17th December 1957
19	349—360	<i>Opinion</i> 497	17th December 1957
20	361—376	<i>Opinion</i> 498	17th December 1957
21	377—394	<i>Opinion</i> 499	24th January 1958
22	395—422	<i>Opinion</i> 500	24th January 1958
23	104A—104J	Resolution Supplementary to <i>Opinion</i> 485	11th April 1958
24	423—452 T.P.—XVI	{ Indexes Foreword, Table of Contents }	30th May 1958

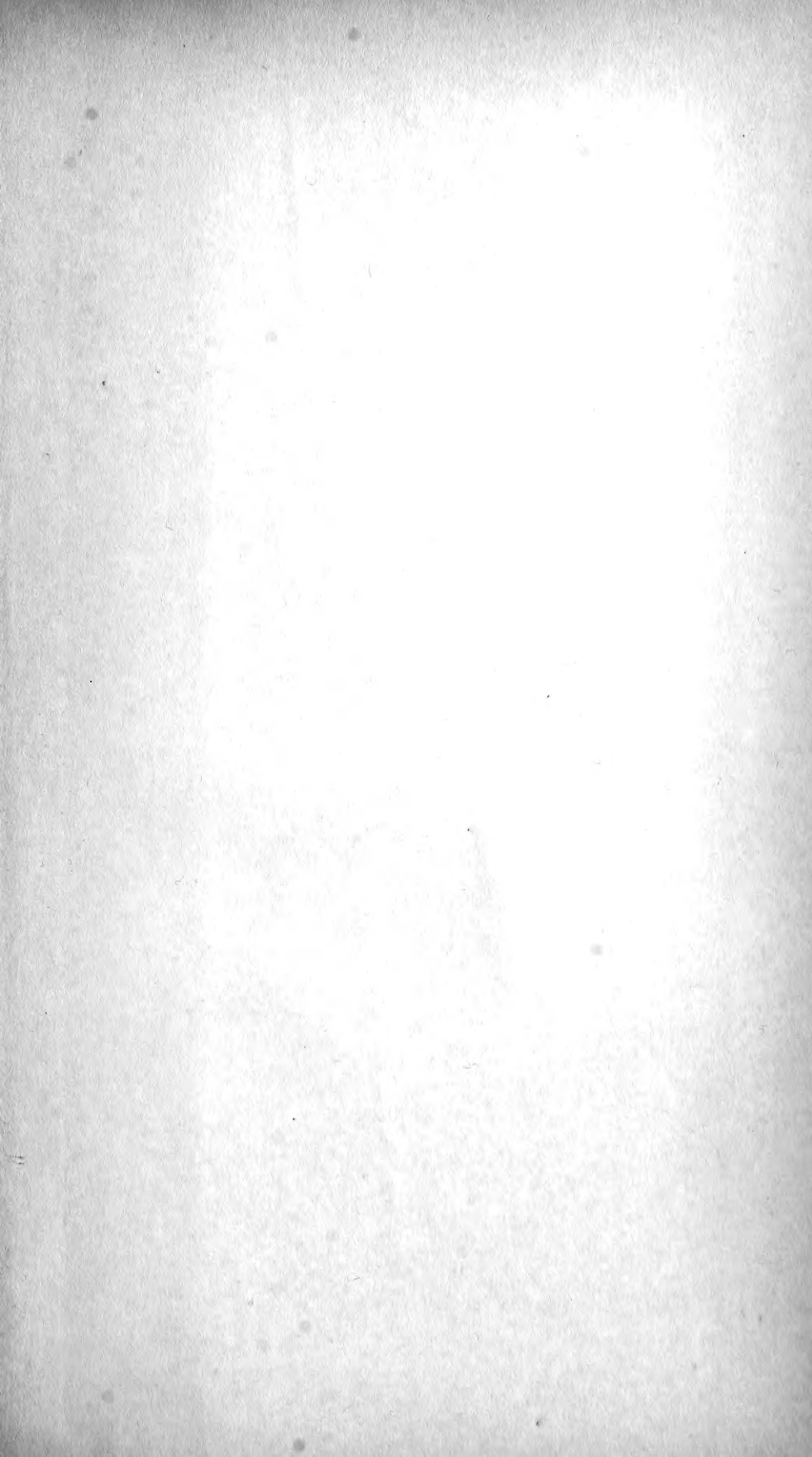
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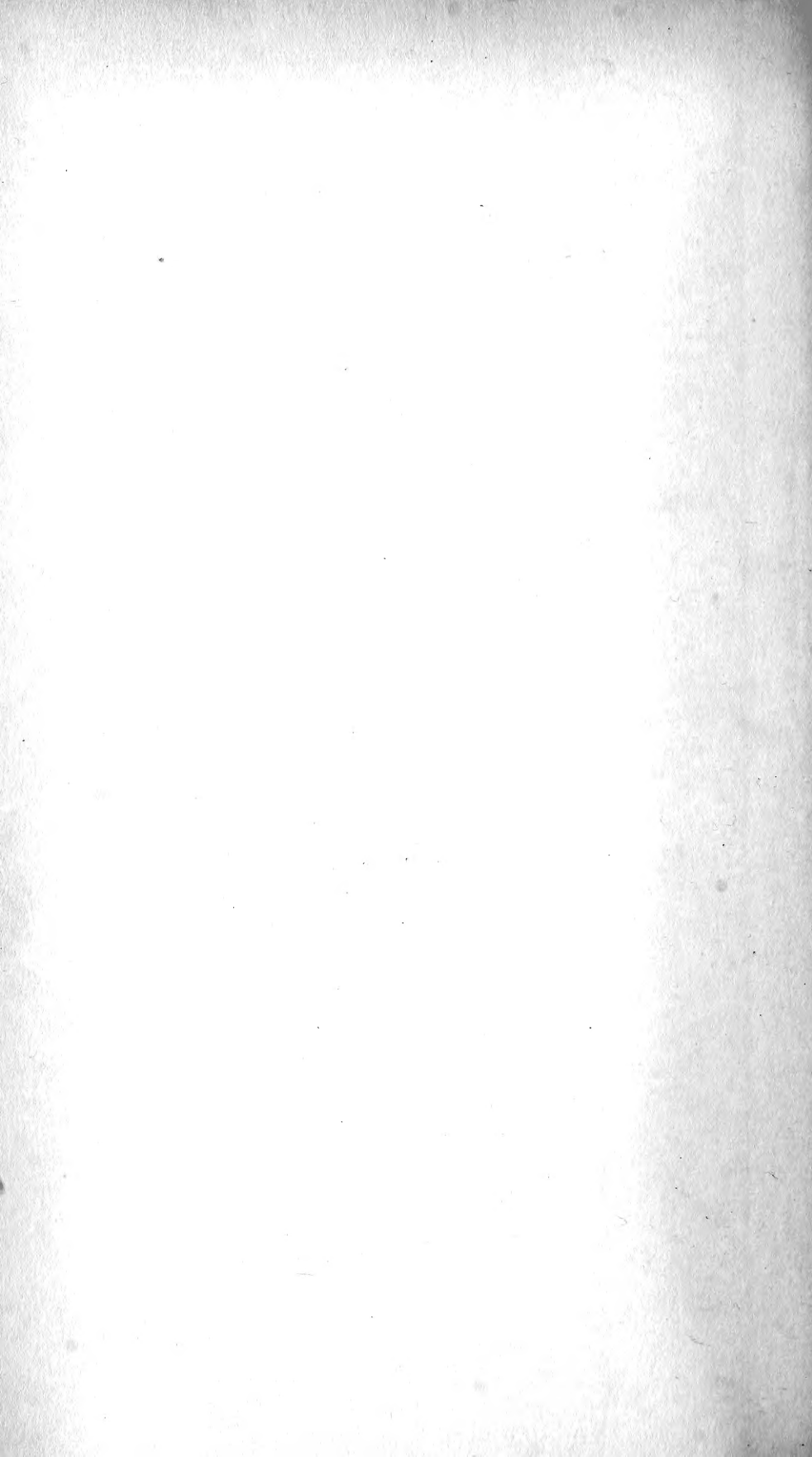
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