



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

VOLUME 3

Edited by

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

Secretary to the International Commission on Zoological Nomenclature

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FOREWORD

The present volume—the third of the series entitled *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature*—was begun in the year 1944 as a means for securing the publication of *Opinions* on questions on which decisions had been taken by the International Commission on Zoological Nomenclature after the close of its Lisbon Session in 1935. In all, thirteen *Opinions* were published in this way in the period 1944–1947. No more decisions requiring *Opinions* were taken by the Commission until its Session held in Paris in 1948. Those decisions were set out in detail in the Official Record of its Paris Session (1950, *Bull. zool. Nomencl.* 4), but no steps were then taken to embody those decisions in formal *Opinions*. This was not because it was thought that this was unnecessary but was the result of a considered decision that it was better at that time to devote the limited resources of the Commission in staff and money to pressing on with those parts of its work on which no action had hitherto been taken rather than to use those resources for the purpose of preparing and publishing *Opinions* embodying decisions which had already been set out in detail in the Official Record of its Paris Session. The situation in regard to this matter was materially changed in 1953 when the resources of the Commission were greatly increased as the result partly of the retirement of the Honorary Secretary from the United Kingdom Civil Service, which made it possible for him to devote the whole of his time—instead of, as formerly, only his spare time—to the work of the Commission and, partly, of a substantial (but non-recurrent) gift received at the end of 1953, which made it possible to engage staff to assist the Secretary by relieving him of those parts of the work which could be done for him by others. The improvement in the general situation of the Commission so secured made it possible at the end of 1953 to resume the preparation of *Opinions* on individual cases on which decisions had been taken by the Commission but which had not been formally placed on record in this way. The concluding portion of the present volume—consisting of sixteen *Opinions*—represents the first instalment of the *Opinions* so prepared.

2. A number of decisions taken by the Thirteenth International Congress of Zoology, Paris, 1948, affect both the scope and the form of the *Opinions* which the International Commission is authorised to render. Of these decisions the following may be cited :—(1) As from the Paris Congress of 1948 the Commission is no longer to render in its “*Opinions*” Series decisions of a general character relating to the interpretation of the *Règles*, all such decisions in future to be made public in the Commission’s “*Declarations*” Series ; the object of this decision was to segregate sharply all decisions taken by the Commission on general questions of principle (which were of interest to all zoologists) from decisions relating to individual names and to the status of individual books (which by their nature were of direct interest only to more limited groups of zoologists). (2) Every name validated under the Plenary Powers or declared to be available by the Commission is in future to be placed on the *Official List of Generic Names in Zoology* or, as the case may be, on the *Official List of Specific Names in Zoology* (this latter *List* having been expressly established for this purpose by the Paris Congress). Similarly, every name suppressed by the Commission under its Plenary Powers or otherwise rejected as invalid is in future to be placed on the appropriate *Official Index of Rejected and Invalid Names* (these two *Indexes* having been established by the Paris Congress for the recording of such names). (3) Every entry of a name on the *Official List of Generic Names in Zoology* is in future to include a statement giving the gender of that name.

3. The *Opinions* rendered since the Paris Congress have been prepared in accordance with the decisions described above and, in accordance with a further Directive given to the Commission by the Paris Congress, steps have been taken to apply the second and third of the decisions outlined above to *Opinions* rendered prior to 1948. This has been done through the issue by the Commission of *Directions* containing the requisite decisions on the questions concerned. So far as concern *Opinions* 182 to 194, the first thirteen *Opinions* included in the present volume, action has been taken through *Direction* 1, which is published as Part 30. This *Direction* disposes of all outstanding questions arising in connection with the foregoing group of *Opinions* with the exception of the following which have been reserved for separate consideration as follows :—

- (1) File Z.N.(S.) 799 : question of placing *Clymenia* Münster, 1832, on the *Official List of Generic Names in Zoology*. The codification of the Ruling given in *Opinion* 182 has been postponed until a decision has been taken on the foregoing question.
- (2) File Z.N.(S.) 800 : status of generic names as published in Martini & Chemnitz, *Conchylien-Cabinet*. This is a matter with which it was not possible for the International Commission to deal in a substantive fashion at the time when it adopted its *Opinion* 184, because it depended upon the meaning to be attached to Proviso (b) to Article 25 of the *Règles*, a matter which was at that time *sub judice*, because awaiting review by the Thirteenth International Congress of Zoology.
- (3) File Z.N.(S.) 801 : question whether the name *Rhynchonella* Fischer de Waldheim, 1809, should be placed on the *Official List of Generic Names in Zoology*. This question arises in connection with *Opinion* 190.

4. Of the twenty-nine *Opinions* included in the present volume, two are concerned with questions of the interpretation of the *Règles* which, if the Paris decisions had been in existence at the time of the adoption of the *Opinions* concerned, would have been dealt with not in *Opinions* but in *Declarations*. The *Opinions* concerned are *Opinions* 183 and 191.

5. The present volume, which comprises 464 pages (T.P.—XVI, 1—448), includes twenty-nine *Opinions* and one *Direction*. Of the applications dealt with in the foregoing *Opinions* one was submitted jointly by three specialists. When account is taken of this fact, the total number of applicants is seen to be thirty-one. Leaving aside the two *Opinions* which dealt with the interpretation of the *Règles*, twenty-four of the remaining twenty-seven *Opinions* are concerned with individual names and three with the status of books. Seventeen (70 per cent.) of the twenty-four cases concerned with individual names involve the use of the Plenary Powers. The use of these Powers is involved also in one of the three *Opinions* relating to the status of individual books.

VIII

6. The twenty-four 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 concerned are arranged so as to distinguish those which involved the use of the Commission's Plenary Powers from those which do 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>
Rhizopoda	1	—	1
Graptolithina	3	—	3
Nematoda	1	—	1
Ciliophora	—	1	1
Crustacea	2	—	2
Insecta	—	2	2
Gastropoda	2	—	2
Pelecypoda	2	—	2
Cephalopoda	1	1	2
Brachiopoda	—	1	1
Asteroidea	—	1	1
Echinoidea	4	—	4
Reptilia	1	1	2
Totals	17	7	24

7. When the thirty-one 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
Denmark	5
Germany	2
Netherlands	3
United Kingdom	7
United States of America	13
Total	31

8. Under the Rulings given in the twenty-four *Opinions* dealing with individual names published in the present volume, as supplemented by the Ruling given in *Direction 1*, 18 names were added to the *Official List of Generic Names in Zoology* and 28 names to the *Official List of Specific Names in Zoology*. In the same *Opinions* and *Direction*, 37 names were placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* and 10 names were placed on the *Official Index of Rejected and Invalid Specific Names in Zoology*. Under the Rulings given in the three *Opinions* dealing with the status of books, as supplemented by the Ruling given in *Direction 1*, the titles of two works were placed on the *Official List of Works Approved as Available for Zoological Nomenclature* and the titles of three works were placed on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature*.

9. The twenty-four *Opinions* dealing with individual names published in the present volume contain 125 comments received

from interested specialists. These comments were in a number of cases—notably those concerned with names in the Class Echinoidea—were in many cases joint comments from a number of specialists. When account is taken of this consideration, the number of specialists who contributed comments on the applications dealt with in the foregoing block of *Opinions* is found to number 295.

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

TABLE 3

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>
Rhizopoda	23
Graptolithina	25
Nematoda	1
Ciliophora	2
Crustacea	5
Insecta	5
Gastropoda	10
Pelecypoda	14
Cephalopoda	16
Brachiopoda	3
Echinoidea	181
Reptilia	10
Total	295

11. When the authors of the comments on individual names dealt with 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 4

Distribution of authors of comments on applications relating to individual names, by country of residence of the authors concerned

<i>Country of Residence</i>	<i>Number of comments</i>
Australia	10
Brazil	1
Denmark	20
France	21
Germany	30
Italy	5
Japan	8
Netherlands	1
Norway	4
Portugal	4
Sweden	12
United Kingdom	60
United States of America	99
U.S.S.R.	20
Total	295

12. In view of the decision taken in Paris in 1948 that, henceforward the decision given in an *Opinion* rendered by the International Commission is to be looked for only in the brief passage placed at the head of each *Opinion* and hitherto styled the "Summary" of that *Opinion*, the expression "Summary", if continued in use, would be very misleading. Accordingly, as from the first of the *Opinions* rendered since the Paris Congress, the obsolete expression "Summary" has been replaced by the expression "Ruling", an expression which correctly indicates the subject matter of the passage in question.

13. For the preparation of the indexes published in the concluding Part of the present volume the Commission is once again indebted to Miss Joan Kelley, B.Sc. In style these annexes follow the model laid down for volumes of the *Bulletin of Zoological Nomenclature*, to the usefulness of which the Commission has received tributes from many sources.

14. At the time of writing the present Foreword, over three-quarters of the *Opinions* which will together constitute volume 4 of the present series have already been published and the *Opinions* which will appear in volumes 5 and 6 are now in the hands of the printers. That it has been possible to make such rapid progress during the last five months is due very largely to the fact that during that period the Secretary to the Commission has had at his disposal a skilled staff of assistants. The thanks of the Commission and of zoologists generally is due to these assistants for the long hours of hard work which they have devoted to their duties and for the meticulous care which they have shown in its discharge.

FRANCIS HEMMING

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on Zoological Nomenclature*

28 Park Village East,
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LONDON, N.W.1.

21st April 1954.

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

Secretary to the Commission

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OPINION 182

On the status of the names published by Gumbel
(C. W.) in 1863 for subdivisions of the genus
Clymenia Münster, 1832 (Class Cephalopoda,
Order Ammonoidea)

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OPINION 182.

ON THE STATUS OF THE NAMES PUBLISHED BY GÜMBEL (C. W.) IN 1863 FOR SUBDIVISIONS OF THE GENUS *CLYMENIA* MÜNSTER, 1832 (CLASS CEPHALOPODA, ORDER AMMONOIDEA).

SUMMARY.—The names published in the nominative plural by C. W. Gümbel in 1863 for subdivisions of the genus *Clymenia* Münster, 1832 (Class Cephalopoda, Order Ammonoidea), are not available as subgeneric names as at that date. These names are available as at 1883, when they were published by Hyatt in the nominative singular. Hyatt is to be treated as the author of these names.

I.—THE STATEMENT OF THE CASE.

This case was submitted to the International Commission on Zoological Nomenclature by Professor Dr. O. H. Schindewolf of the Preuss. Geolog. Landesanstalt, Berlin, in the following letter, dated 2nd February 1934:—

Die Zusammenstellung eines Kataloges der paläozoischen Ammonoiten, mit der ich zur Zeit beschäftigt bin, erfordert eine Klärung der sehr verworrenen Nomenklatur der Clymenien (Cephal.). Ich erlaube mir daher, der Nomenklatur-Kommission die folgende Frage zur Entscheidung vorzulegen:

1832 wurde vom Grafen G. zu Münster das Genus *Clymenia*¹ aufgestellt,

¹ This name is normally spelt *Clymenia* and attributed to Münster, 1832, in Goldfuss, *Naturh. Atlas* 4: 489. Scudder (1882, *Nomencl. zool. Suppl. List*: 78), however, spelt this name *Clymenea*, dated it "1830," and attributed it to Münster in "*Bemerk. Belemn.*" At the end of the reference, Scudder added the word "Agassiz," thereby signifying that he had not himself consulted the work by Münster cited but had taken the reference second-hand from Agassiz. In the most modern *Nomenclator* (Neave, 1939, *Nomencl. zool.* 1: 771), the name with the spelling *Clymenea* is given as by Münster, 1830, on the strength of Scudder, 1882, and the later spelling *Clymenia* Münster, 1832, is treated as an error for *Clymenea* Münster, 1830.

As it was clearly desirable that all doubts regarding the correct spelling of this generic name should be removed before the present *Opinion* was published, Commissioner Hemming on 21st August 1943 wrote to Dr. L. R. Cox, British Museum (Natural History), asking him to investigate the matter. In his reply, dated 31st August 1943, Dr. Cox stated:—

We have a copy of Münster's *Bemerkungen zur nähern Kenntniss der Belemniten* (Bayreuth, 1830), which is a quarto pamphlet of 18 pages and 1 plate. I have read through it carefully and can find no trace of the word *Clymenea* or anything like it. I see that Sherborn in his *Index Animalium*, Pars secunda: 1367, gives *Clymenea* G. von Münster, *Bemerk. Belemn.*, 1830, only on the authority of Scudder, having apparently failed (like myself) to find it in Münster's work. Scudder apparently had not seen the reference himself, or he would have cited the exact page. I think that you may regard *Clymenea* Münster, 1830, as a myth.

In these circumstances, the spelling *Clymenia* and not *Clymenea* has been adopted for this name in the present *Opinion*, and the name is treated as having been published by Münster in 1832 and not in 1830.

das heute in eine Reihe selbständiger und wohlbegründeter Gattungen zerfällt. Es ist dabei unklar, wem die Autorschaft einiger der später aufgestellten Gattungen zuzuschreiben ist und wie dementsprechend Inhalt, Definition, Genotypen usw. dieser Gattungen zu fassen sind. Der geschichtliche Tatbestand ist der folgende:

Als erster erkannte C. W. Gümbel, 1863 (*Palaeontographica* 11: 116 ff.), dass die Gattung *Clymenia* Münster in verschiedene "Gruppen oder Untergattungen" zerfällt, und er gab (pp. 118–119) die nachstehende Gliederung:

I. *Euclymenieceae*1. *Cyrtoclymenieceae*(a) *Sublobatae*

- Clymenia angustisettata*
- : *flexuosa*
- : *annulata*
- : *spinosa*

(b) *Longilobatae*

- Clymenia binodosa*

(c) *Genuflexilobatae*

- Clymenia dunkeri*
- : *laevigata*

2. *Oxyclymenieceae*(a) *Adscendentis*

- Clymenia undulata*

(b) *Incumbentes*

- Clymenia striata*

3. *Cymaclymenieceae*

- Clymenia bilobata*

II. *Nothoclymenieceae*1. *Sellaclymenieceae*

- Clymenia angulosa*

2. *Conioclymenieceae*

- Clymenia speciosa*
- : *subarmata*
- : *intermedia*
- : *beaumonti*

?3. *Discoclymenieceae*

- Clymenia haueri*

?III. *Cycloclymenieceae*

- Clymenia planorbiformis*

Die auf -ieae endigenden *Hauptgruppen* *Euclymenieceae*, *Nothoclymenieceae* und *Cycloclymenieceae* werden von Gümbel auf pp. 116–118 wiederholt als 'Gruppen oder Untergattungen' oder auch geradezu als 'Untergattungen' bezeichnet. Für die mit -ieae endenden *Untergruppen* der *Cyrtoclymenieceae*, *Oxyclymenieceae*, *Sellaclymenieceae* usw. dagegen ist die Bezeichnung als *Untergattung* vermieden worden und würde auch sinnwidrig gewesen sein. Im Singular, also etwa als 'Euclymenia', 'Cyrtoclymenia', 'Oxyclymenia' usw., ist keiner der Namen verwendet worden, und es ist mir daher zweifelhaft, ob diese *Pluralbezeichnungen überhaupt als gültige Gattungsnamen gelten können*. Wenn das möglich ist, sollten wohl in erster Linie die Namen 'Nothoclymenia' und 'Cycloclymenia' erhalten werden, die von Gümbel selbst als *Untergattungen* bezeichnet wurden. Für 'Euclymenia' hatte *Clymenia* Münster *s.str.* einzutreten, die Gümbels Gruppe der *Oxyclymenieceae* *incumbentes* entspricht. Es entsteht weiterhin die Frage, ob etwa ausser den Namen dieser *Hauptgruppen* auch die von Gümbel für die *Untergruppen* gegebenen Bezeichnungen, *Cyrtoclymenieceae*, *Cymaclymenieceae* usw., die also etwa *Sektionen* entsprechen, als gültige Gattungsnamen beibehalten werden können, bzw. ob die Autorschaft der heute gebräuchlichen Gattungen *Cyrtoclymenia*, *Cymaclymenia* usw. Gümbel zugeschrieben werden darf. 'Oxyclymenia' würde in diesen Falle als Synonym von 'Euclymenia' = *Clymenia* Münster, *s.str.*, gelten und *Sellaclymenia* als Synonym von *Nothoclymenia* fallen müssen.

Im Jahre 1883 gab dann A. Hyatt (*Proc. Boston Soc. nat. Hist.* 22: 312 ff.) eine neue und etwas eingehendere Gliederung der '*Clymeninae*.' "The author [Hyatt] has spent considerable time in the study of this group and divided them into genera, but these can only now serve as the basis of

appreciative criticism for the elaborate work of Dr. Gümbel, *Über Clym.* (*Palaeontog.* vol. 11, p. 83, 1863). This author's sub-groups are equal to our genera, and most of his varieties are what we should call species. We, therefore, use his names in this value without making any claim to the credit of having originated them" (p. 313). Diese Gliederung, soweit sie uns hier angeht, lautet folgendermassen :

I. <i>Cyrtoclymenidae</i>	II. <i>Cymaclymenidae</i>	III. <i>Gonioclymenidae</i>
1. <i>Cyrtoclymenia</i>	1. <i>Cymaclymenia</i>	1. <i>Cycloclymenia</i>
2. <i>Oxyclymenia</i>	2. <i>Sellaclymenia</i>	2. <i>Gonioclymenia</i>
		3. <i>Discoclymenia</i>

Der Inhalt dieser Gattungen deckt sich im allgemeinen mit dem der entsprechenden Untergruppen bei Gümbel. Dagegen ist nach der Wahl der Genotypen *Oxyclymenia* Hyatt verschieden von *Oxyclymenia* Gümbel und *Cymaclymenia* Hyatt verschieden von *Cymaclymenia* Gümbel. Der Entscheidung, welcher der beiden Autoren, Gümbel oder Hyatt, als Urheber der heute benutzten Gattungen *Oxyclymenia*, *Cymaclymenia* usw. zu gelten hat, kommt daher grosse Bedeutung zu.

Es ist nach obigem klar, dass Gümbel der eigentliche Schöpfer der Clymenien-Systematik und -Nomenklatur ist und Hyatt lediglich eine Erhöhung der einzelnen Kategorien Gümbels zu Familien und Gattungen unter Benutzung der von jenem gewählten Wortstämme durchgeführt hat. Er hat sich der Einteilung Gümbels auf das engste ausgeschlossen, und wo er davon durch Nennung nicht entsprechender Genotypen abwich, ist es offenbar irrtümlich geschehen. Dem Rechtsempfinden nach würde man daher Gümbel die Autorschaft der Gattungen zuschreiben; vom formalen Standpunkt aus dagegen wird Hyatt als Autor gelten müssen. Eine Reihe von nomenklatorischen Änderungen ist in jedem Falle unvermeidlich, sodass unter diesem Gesichtspunkte keine der Entscheidungen einen Vorzug verdient.

Auf Grund der vorstehenden Ausführungen bitte ich die Nomenklatur-Kommission um ein Urteil :

- (1) Ob die von Gümbel für Untergattungen bezw. Sektionen geschaffenen und stets nur im Plural angewandten Bezeichnungen *Cyrtoclymenia* (*Oxyclymenia*), *Cymaclymenia*, *Nothoclymenia* (*Sellaclymenia*), *Gonioclymenia*, *Discoclymenia* und *Cycloclymenia* als gültige Gattungsnamen im Singular verfügbar sind und
- (2) ob dementsprechend Gümbel als Autor bei Hyatt gleichlautenden Gattungsbezeichnungen gelten muss.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. In March 1934 this case was referred to the Members of the Commission for observations. The following comments were received by Commissioner Karl Jordan and Commissioner Rudolf Richter :—

(a) *Comments by Commissioner Karl Jordan.*

As Gümbel did not employ any of the names in the singular form, they should be dated 1883 when Hyatt published his classification.

If we do not insist that a new generic (or subgeneric) name must be published in the singular, Latin taxonomic terms such as "Sphingiformes" might be construed as names and lead to much confusion.

(b) *Comments by Commissioner Rudolf Richter.*

(1) Die Gümbeſ'schen Gruppen-Namen (1863) kommen als Gattungsnamen nicht in Betracht, da sie—entgegen dem Art. 8—in der Mehrzahl und nicht in der Einzahl angewandt worden sind.

(2) Als Autor der von Gümbeſ (1863) in der Mehrzahl und von Hyatt (1883) in der Einzahl angewandten, sonst aber gleichlautenden Namen hat daher Hyatt 1883 zu gelten.

In Gemeinschaft mit Dr. Rob. Mertens.

3. In March 1935 Commissioner C. W. Stiles included this case as one of the items which he suggested should be considered by the Commission at the Session arranged to be held at Lisbon later that year. When, however, the Commission met at Lisbon in September 1935, they found themselves confronted with an exceptionally long agenda and this was one of the cases with which in the limited time available they were unable to deal on that occasion. It was accordingly arranged that this matter should be settled by correspondence after the close of the Lisbon Congress.

4. In February 1936, Dr. Stiles, as Acting Secretary to the Commission, invited Commissioners to vote on a proposal that the Commission should render an *Opinion* on the lines suggested in the comments received from Commissioners Jordan and Richter (paragraph 2 above).

5. By October 1936 a sufficient number of Commissioners had recorded their votes in favour of the proposed *Opinion* in order to secure its adoption as an *Opinion* of the Commission. The papers relating to the present case were among the first to be transferred from Washington to London after the election (on 6th October 1936) of Commissioner Francis Hemming to be Secretary to the Commission and on 31st December 1936 Commissioner Hemming, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot in this case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

6. The decision taken by the Commission in the present case is :—

- (a) that the names published in the nominative plural by Gümbeſ in 1863 for subdivisions of the genus *Clymenia* Münster, 1832, in Goldfuss, *Naturh. Atlas* 4:489 (Class

Cephalopoda, Order Ammonoidea) are not available as subgeneric names as at that date;

- (b) that the names referred to in (a) above are available as at 1883 (*Proc. Boston Soc. nat. Hist.* 22:312), when they were published in the nominative singular by Hyatt; and
 (c) that Hyatt and not Gumbel is to be treated as the author of these names.

7. The following twelve (12) Commissioners voted in favour of the present *Opinion* :—

Cabrera; Calman; Chapman; Esaki; Fantham; Hemming; Jordan; Pellegrin; Peters; Richter; Stiles; and Stone.

8. One (1) Commissioner voted against the present *Opinion*, namely :—Stejneger.

9. The following three (3) Commissioners did not vote on the present *Opinion* :—

Apstein; Bolivar y Pieltain; and Silvestri.

10. At the time when the vote was taken on the present *Opinion* there were two vacancies in the membership of the Commission. These were due to the death of Commissioner Handlirsch and the resignation of Commissioner Horváth.

11. The following three (3) Commissioners attached notes to their votes on this case amplifying their attitude towards the general question of the interpretation of Article 8 of the International Code necessarily involved in any vote, whether affirmative or negative, on the present case :—

Cabrera; Hemming; and Peters.

This general question is dealt with in the next succeeding *Opinion* (*Opinion* 183), in which the notes referred to above are quoted.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the By-Laws of the International Commission on Zoological Nomenclature provide that, except in cases involving the suspension of the rules, an *Opinion* is to have been deemed to have been adopted by the said International Commission as soon as a majority of the Members of the Commission, that is to

say ten (10) Members of the said Commission, have recorded their votes in favour thereof, provided that, where any proposed *Opinion* involves a reversal of any former *Opinion* rendered by the Commission, such proposed *Opinion* shall obtain the concurrence of at least fourteen (14) Members of the Commission voting on the same before such *Opinion* is to be deemed to have been adopted by the Commission; and

WHEREAS the present *Opinion*, as set out in the summary thereof, neither requires, in order to be valid, the suspension of the rules, nor involves a reversal of any former *Opinion* rendered by the Commission; and

WHEREAS twelve (12) Members of the Commission have signified their concurrence in the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Eighty Two (*Opinion* 182) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this fifteenth day of December, Nineteen Hundred and Forty Three, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

THE PUBLICATIONS OF THE COMMISSION.

(obtainable at the Publications Office of the Commission at 41, Queen's Gate, London, S.W.7.)

Bulletin of Zoological Nomenclature.

This journal has been established by the International Commission as their Official Organ in order to provide a medium for the publication of :—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision ;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above ; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

The *Bulletin* was established in 1943, in which year three Parts were published. Part 4 has been published in 1944 and Parts 5 and 6 are in the press.

Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature.

The above work is being published in three volumes concurrently, namely :—

Volume 1. This volume will contain *Declarations* 1-9 (which have never previously been published) and *Opinions* 1-133 (the original issue of which is now out of print). Parts 1-15 (containing *Declarations* 1-9 and *Opinions* 1-6) have now been published. Further Parts will be published shortly.

Volume 2. This volume will be issued in 52 Parts, comprising all the decisions taken by the International Commission at their meeting at Lisbon in 1935, namely *Declarations* 10-12 (with Roman pagination) and *Opinions* 134-181 (with Arabic pagination). Part 52 will contain the index and title page of the volume. Parts 1-26, containing *Declarations* 10-12 and *Opinions* 134-156, have now been published. Further Parts will be published shortly.

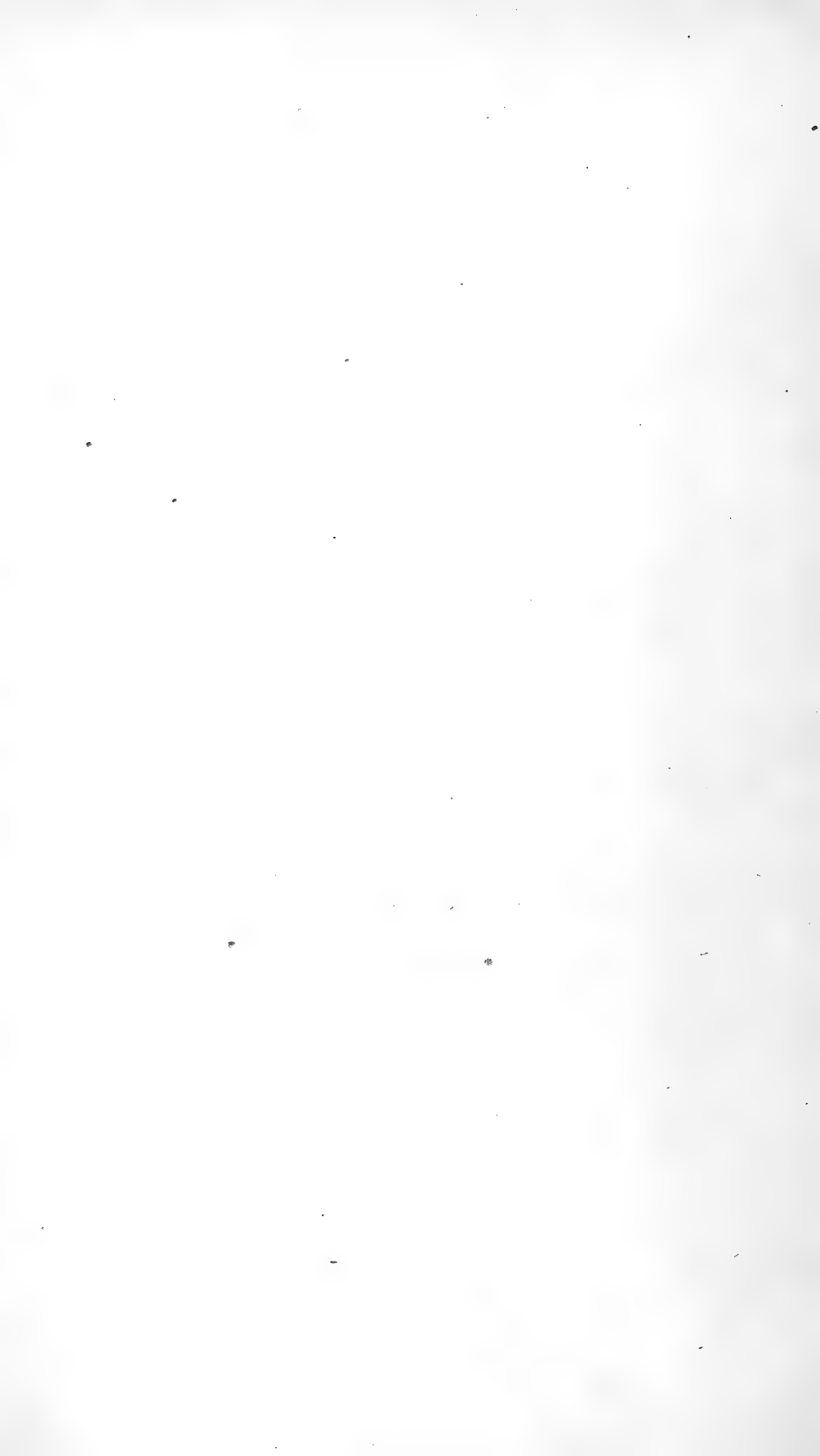
Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-4 (containing *Opinions* 182-185) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £773 13s. 7d. were received up to 30th June 1944. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

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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 3. Part 2. Pp. 13-24.

OPINION 183

On the principles to be observed in interpreting
Article 8 of the International Code in relation
to the form in which generic and subgeneric
names are to be published

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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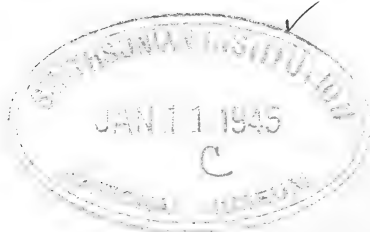
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OPINION 183.

ON THE PRINCIPLES TO BE OBSERVED IN INTERPRETING ARTICLE 8 OF THE INTERNATIONAL CODE IN RELATION TO THE FORM IN WHICH GENERIC AND SUBGENERIC NAMES ARE TO BE PUBLISHED.

SUMMARY.—The provision in Article 8 of the International Code that a generic name is to consist of a noun ¹ in the nominative singular is to be interpreted as prescribing that no name is to be accepted as a generic name until it has been published in the nominative singular. A name first published in some number or case other than the nominative singular and later published in the nominative singular is, under Article 25 of the International Code, available as a generic name only as from the date on which it is for the first time published in the nominative singular. In virtue of Article 7 of the International Code, the foregoing provisions apply also to the form in which subgeneric names are to be published.

I.—THE STATEMENT OF THE CASE.

The question whether, in order to comply with the requirements of Article 8 of the International Code, a generic (or subgeneric) name must be published in the nominative singular was submitted to the International Commission on Zoological Nomenclature in February 1934 when Professor Dr. O. H. Schindewolf,² Preuss. Geolog. Landesanstalt, Berlin, presented for decision a particular example of this problem in connection with the name *Clymenia Münster*, 1832, *Naturh. Atlas* 4: 489³ (Class Cephalopoda, Order Ammonoidea). In this case the question for decision was

¹ The French text of the International Code of Zoological Nomenclature is the sole authentic text, the English, German, and Italian texts being only Official Translations of the French text. In the case of Article 8, it may be noted that the French noun "substantif" is incorrectly translated as "substantive" in the English text. The correct translation of this word is, of course, "noun."

² The text of the petition submitted by Professor Schindewolf is reproduced in full in paragraph 1 of *Opinion* 182 (see pp. 3-5).

³ For the evidence on which this name is here spelt *Clymenia* and not *Clymeneia* and is treated as having been published by Münster in 1832, *Naturh. Atlas* 4: 489 and not in 1830, *Bemerkungen zur nähern Kenntniss der Belemniten*, see footnote 1 to *Opinion* 182 (p. 3).

whether the names in the nominative plural published by GümbeI in 1863 for subdivisions of that genus were to be accepted as having status as subgeneric names as from that date or whether those names should be deemed to have no status in nomenclature until 1883, the year in which they were published for the first time in the nominative singular.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. The question of principle relating to the interpretation of Article 8 and the particular case of the group names published by GümbeI in 1863 were considered by the Commission concurrently. During the preliminary examination of these questions in the years 1934 and 1935, the following comments were received from Commissioner Karl Jordan and Commissioner Rudolf Richter :—

(a) *Comments by Commissioner Karl Jordan*

As GümbeI did not employ any of the names in the singular form, they should be dated 1883 when Hyatt published his classification.

If we do not insist that a new generic (or subgeneric) name must be published in the singular, Latin taxonomic terms such as "Sphingiformes" might be construed as names and lead to much confusion.

(b) *Comments by Commissioner Rudolf Richter*

(1) Die GümbeI'schen Gruppen-Namen (1863) kommen als Gattungsnamen nicht in Betracht, da sie—entgegen dem Art. 8—in der Mehrzahl und nicht in der Einzahl angewandt worden sind.

(2) Als Autor der von GümbeI (1863) in der Mehrzahl und von Hyatt (1883) in der Einzahl angewandten, sonst aber gleichlautenden Namen hat daher Hyatt 1883 zu gelten.

In Gemeinschaft mit Dr. Rob. Mertens.

3. In 1936 the Commission took a vote on a proposal that they should render an *Opinion* on the lines suggested by Commissioners Jordan and Richter (paragraph 2 above), that is to say that the Commission should declare that under Article 8 of the International Code the names published in the nominative plural by GümbeI in 1863 had no status in nomenclature until they were republished in the nominative singular by Hyatt in 1883.

4. At their Session held at Lisbon the Commission had been confronted with an application which, like that submitted by Professor Schindewolf, involved both the status of a particular name (*Urothoe* Dana) and the interpretation of a particular Article (Article 4) of the International Code. In that case the Commission decided that their proper course would be to dispose of this application by rendering two *Opinions*, the first dealing

with the name *Urothoe* Dana ⁴ and the second with the interpretation of Article 4 of the Code ⁵ (Lisbon Session, 4th Meeting, Conclusions 6 and 7). Later at the same meeting, the Commission had under consideration a similar problem of procedure in connection with an application relating to the interpretation of Article 34 of the Code. In this case the Commission had already taken a decision on the question of principle when deciding upon the status of certain names which had been submitted to them for an *Opinion*.⁶ In the course of the discussion of this case it was pointed out that it was difficult for working zoologists to detect decisions on questions of principle when these were published only incidentally in *Opinions* dealing with particular cases. The decision then taken by the Commission on the general question of procedure involved (Lisbon Session, 4th Meeting, Conclusion 15) was as follows:—⁷

On the general issue involved the Commission was unanimously of the view that, when the Commission reached a decision of interest to the general body of zoologists, it was of the greatest importance that that decision should be presented in such a way as to ensure that it was readily available to all concerned.

5. In accordance with the procedure laid down by the Commission at their Lisbon Session (as set out in the preceding paragraph), separate *Opinions* have been prepared for the two questions submitted by Professor Schindewolf, namely the status of the names published by Gumbel in 1863 and the interpretation of Article 8 of the Code which governs the status of those names.

6. The decision of the Commission in regard to the status of Gumbel's names has been given by the Commission in *Opinion* 182 as follows:—

The names published in the nominative plural by Gumbel in 1863 for subdivisions of the genus *Clymenia* Münster, 1832 (Class Cephalopoda, Order Ammonoidea) are not available as subgeneric names as at that date. These names are available as at 1883, when they were published by Hyatt in the nominative singular. Hyatt is to be treated as the author of these names.

7. In addition to the comments from Commissioners Jordan and Richter quoted in paragraph 2 above, the following com-

⁴ See *Opinion* 133.

⁵ See *Opinion* 141 (1943, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 2: 55-66).

⁶ The *Opinion* here referred to had been agreed upon by the Commission prior to the Lisbon Session but at that time was as yet both unnumbered and unpublished. It was published as *Opinion* 125 in October 1936. The names dealt with were *Borus* Agassiz, 1846, *Borus* Herbst, 1797, and *Borus* Albers, 1850.

⁷ For the full text of Conclusion 15, see *Bull. zool. Nomencl.* 1: 40-41.

ments on the interpretation of Article 8 were received from Commissioners Cabrera, Stejneger, Peters and Hemming during the voting on the proposal referred to in paragraph 3 above :—

(a) *Comments by Commissioner Angel Cabrera*

I think this question is not open to discussion as Art. 8 of the Code clearly lays down that generic terms must be names in the singular.

(b) *Comments by Commissioner Leonhard Stejneger*

My reason for dissenting is that I do not consider that the wording of Article 8 demands that a generic or subgeneric name must have been proposed in the nominative singular in order to become available from the date of its publication. Gumbel's names were proposed as "Untergattungen" and when so *employed* are to be put in the nominative singular.

(c) *Comments by Commissioner James L. Peters*

I concur with the *Opinion* as set forth in Circular Letter 330,⁸ with the reservation that nothing therein shall be construed as affecting the validity of names of Merrem, 1786, or Sundevall, 1857, written in the accusative case under the requirements of correct classical grammar.

(d) *Comments by Commissioner Francis Hemming*

I agree with Commissioner Cabrera that the question before the Commission is a question which, in view of Article 8 of the International Code, is not one that is open to discussion. That Article states categorically that a generic name (or, through Article 7, a subgeneric name) must be a noun in the nominative singular. The wording of this Article in the authoritative French text is as follows :—

Art. 8. Le nom générique consiste en un mot unique, simple ou composé, écrit par une première lettre capitale et employé comme substantif⁹ au nominatif singulier. Exemples : *Canis, Perca, Ceratodus, Hymenolepis*.

2. A name published in the nominative plural (such as those published by Gumbel) does not comply with the above requirement and accordingly has no status in nomenclature until it is published in a manner that complies with the provisions of Article 8, *i.e.* until it is published in the nominative singular.

3. This is a wise and indeed essential provision both from the theoretical and from the practical standpoint. From the theoretical standpoint, it is essential, because in the case of most pseudo-latin nouns (such as are the majority of modern generic names), it is impossible to determine with certainty what would be the correct nominative singular from an inspection of a word which purports to be either a different case of the same number

⁸ The Circular Letter here referred to contained the petition submitted by Professor Schindewolf (which is quoted in full in paragraph 1 of *Opinion* 182), the comments thereon received from Commissioners Jordan and Richter (quoted in paragraph 2 of *Opinion* 182) and Commissioner Stiles's proposals regarding the action to be taken in this case (see paragraph 4 of *Opinion* 182).

⁹ For the correct translation in English of the French noun "substantif," see footnote 1.

(e.g. an accusative singular) or the same or a different case of a different number (e.g. a nominative plural or an accusative plural). Even in the case of a genuine classical noun, there may be room for similar doubts. Any uncertainty as to the correct form of the nominative singular of a word published as a generic name would not only be a source of embarrassment to the specialists in the group concerned but would also cause serious inconvenience (and confusion) in other groups where a similar word had been published as a generic name, since there would be no means of determining whether under Article 34 the name in question should be rejected as a homonym of the doubtful name first published in some case or number other than the nominative singular.

4. From the practical standpoint this provision of the Code is a wise one, for, if it were not for it, the very large number of group names in some Orders published in the nominative plural would become available as generic names, for example in the Lepidoptera in the family RIODINIDAE by Stichel (*Lepid. Cat.* 38, 40, 41, 44). It is also an equitable provision, since to recognise such names as having status as subgeneric names would not only cause the utmost confusion but would also be manifestly contrary to the intention of the authors concerned.

5. A name clearly published as a generic name but printed only in some case other than the nominative singular (say the accusative singular) in a work written in latin is open to the same objection as are names published in the nominative plural, for they fail to satisfy the requirements of Article 8 that a generic name must be a noun in the nominative singular. It is equally desirable that this rule should apply to this class of case, since here also it is often just as difficult to determine from an inspection of an accusative singular what would be the form of the nominative singular as it is in the case of a nominative plural. A good example of this kind of difficulty is provided in the work of Mabilite in the order Lepidoptera (family HESPERIIDAE). In 1883 this author published a new generic name (*Bull. Soc. ent. Belg.* 1883 : 53) in the genitive singular, the word being given as *Brachycorynae*. From this indication it would have been reasonable to infer that Mabilite considered the nominative singular (and therefore the generic name) to be *Brachycoryna*. In fact, however, when he next published this name (1904, *Gen. Ins.* 17(B) : 81), Mabilite spelt it *Brachycoryne*. If the publication of a new generic name in any case and number other than the nominative singular were permissible under the Code, it would have been necessary in the example quoted to determine whether *Brachycorinae* was the genitive singular of *Brachycoryna* (as one would naturally expect) or of *Brachycoryne* (as Mabilite later showed to be his view). The difficulties inherent in zoological nomenclature are quite sufficient without adding quite unnecessary ones of this kind.

6. It may well be however that in some groups a particular generic name published otherwise than in the nominative singular has come to be generally accepted by the specialists concerned as having status as from the date on which it was so published and that difficulties would arise if it became necessary to treat that name as having been first published at some later date. It would seem to me reasonable in such a case that the Commission should be asked to use their plenary powers to secure that, notwithstanding the provisions of Article 8 of the Code, the name in question should rank for purposes of priority from the date on which it was published for the first time in any case and number instead of only from some later date on which it was first published in the nominative singular. In view, however, of the fact that the publication of a generic name in any group invalidates as a homonym any identical generic name published at a later date in any other group, it would be necessary for the Commission, in considering a proposal to validate a given generic name, to consider also whether the use of their plenary powers in this way would have objectionable repercussions on the nomenclature of any other group.

8. The other nine (9) Commissioners who voted on the double proposition submitted (paragraph 3 above) voted affirmatively without any comment.

9. As explained in paragraphs 3 to 5 above, the vote on the interpretation of Article 8 of the International Code was taken concurrently with that on the status of the names published in the nominative plural by Gumbel for subdivisions of the genus *Clymenia* Münster, 1830 (Class Cephalopoda, Order Ammonoidea). A decision on either of these cases necessarily involved a decision on the other and, when therefore on 31st December 1936 the Secretary to the Commission, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot on the case of the names published by Gumbel (see paragraph 5 of *Opinion* 182), he closed also the ballot on the present case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

10. The decision taken by the Commission in the present case is :—

- (a) that the provision in Article 8 of the International Code that a generic name is to consist of a noun in the nominative singular is to be interpreted as prescribing that no name is to be accepted as a generic name until it has been published in the nominative singular;
- (b) that a name first published in some number or case other than the nominative singular and later published in the nominative singular is, under Article 25 of the International Code, available as a generic name only as from the date on which it is for the first time published in the nominative singular;
- (c) that, in virtue of Article 7 of the International Code, the provisions set out in (a) and (b) above apply also to the form in which subgeneric names are to be published.

11. The following eleven (11) Commissioners voted in favour of the present *Opinion* :—

Cabrera; Calman; Chapman; Esaki; Fantham; Hemming; Jordan; Pellegrin; Richter; Stiles; and Stone.

12. The following two (2) Commissioners voted against the present *Opinion* :—

Peters; and Stejneger.

13. The following three (3) Commissioners did not vote on the present *Opinion* :—

Apstein; Bolivar y Pieltain; and Silvestri.

14. At the time when the vote was taken on the present *Opinion* there were two vacancies in the membership of the Commission. These were due to the death of Commissioner Handlirsch and the resignation of Commissioner Horváth.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the By-Laws of the International Commission on Zoological Nomenclature provide that, except in cases involving the suspension of the rules, an *Opinion* is to have been deemed to have been adopted by the said International Commission as soon as a majority of the Members of the Commission, that is to say ten (10) Members of the said Commission, have recorded their votes in favour thereof, provided that, where any proposed *Opinion* involves a reversal of any former *Opinion* rendered by the Commission, such proposed *Opinion* shall obtain the concurrence of at least fourteen (14) Members of the Commission voting on the same before such *Opinion* is to be deemed to have been adopted by the Commission; and

WHEREAS the present *Opinion*, as set out in the summary thereof, neither requires, in order to be valid, the suspension of the rules, nor involves a reversal of any former *Opinion* rendered by the Commission; and

WHEREAS eleven (11) Members of the Commission have signified their concurrence in the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the

International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Eighty Three (*Opinion* 183) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this fifteenth day of December, Nineteen Hundred and Forty Three, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

THE PUBLICATIONS OF THE COMMISSION.

(obtainable at the Publications Office of the Commission at 41, Queen's Gate, London, S.W.7.)

Bulletin of Zoological Nomenclature.

This journal has been established by the International Commission as their Official Organ in order to provide a medium for the publication of :—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

The *Bulletin* was established in 1943, in which year three Parts were published. Part 4 has been published in 1944 and Parts 5 and 6 are in the press.

Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature.

The above work is being published in three volumes concurrently, namely :—

Volume 1. This volume will contain *Declarations* 1-9 (which have never previously been published) and *Opinions* 1-133 (the original issue of which is now out of print). Parts 1-15 (containing *Declarations* 1-9 and *Opinions* 1-6) have now been published. Further Parts will be published shortly.

Volume 2. This volume will be issued in 52 Parts, comprising all the decisions taken by the International Commission at their meeting at Lisbon in 1935, namely *Declarations* 10-12 (with Roman pagination) and *Opinions* 134-181 (with Arabic pagination). Part 52 will contain the index and title page of the volume. Parts 1-26, containing *Declarations* 10-12 and *Opinions* 134-156, have now been published. Further Parts will be published shortly.

Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-4 (containing *Opinions* 182-185) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £773 13s. 7d. were received up to 30th June 1944. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

Contributions should be sent to the International Commission at their Publications Office, 41, Queen's Gate, London, S.W. 7, and made payable to the "International Commission on Zoological Nomenclature or Order" and crossed "Account payee. Coutts & Co."

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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 3. Part 3. Pp. 25-36.

OPINION 184

On the status of names first published in volumes 1 to 11 of Martini (F. H. W.) and Chemnitz (J. H.), *Neues systematisches Conchylien-Cabinet*, Nürnberg, 1769-1795

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 184.

ON THE STATUS OF NAMES FIRST PUBLISHED IN VOLUMES 1 TO 11 OF MARTINI (F. H. W.) AND CHEMNITZ (J. H.), *NEUES SYSTEMATISCHES CONCHYLIEN-CABINET*, NÜRNBERG, 1769–1795.

SUMMARY.—For so long as generic names published by authors using a system of nomenclature, which, though not binominal, is of the type hitherto accepted as falling within the definition of binary nomenclature,¹ are accepted as complying with the requirements of Article 25 of the International Code, any new generic name published in volumes 1 to 11 of Martini (F. H. W.) and Chemnitz (J. H.), *Neues systematisches Conchylien-Cabinet*, Nürnberg, 1769–1795, is to be accepted as available nomenclatorially, provided that individually it satisfies the requirements of the International Code. Thus, in order to be available as a generic or subgeneric name, every such name (1) must be accompanied by an indication as defined in *Opinion 1* or by a definition or by a description, (ii) if a name originally published before 1758, must satisfy the requirements of *Opinion 5*, (iii) must not have been used by Martini & Chemnitz as an intermediate term of the kind rejected by *Opinion 124*, and (iv) must have been published in the nominative singular (*Opinion 183*). No new specific or subspecific trivial name published in these volumes has any status in nomenclature. The position as respects generic names published in these volumes will need to be re-examined if later it is decided to reject generic names published by authors not applying the binominal system.

I.—THE STATEMENT OF THE CASE.

The present case was submitted to the International Commission on Zoological Nomenclature by Dr. D. L. Frizzell, Dr. A. Myra Keen and Dr. Hubert G. Schenck, Department of Geology,

¹ The question of the meaning to be attached to the term "binary nomenclature" is at present *sub judice* as it was expressly referred by the Twelfth International Congress of Zoology at its meeting held at Lisbon in 1935 to the International Commission on Zoological Nomenclature for deliberation and report. See paragraph (2) (i)–(iii) of the note reproduced in paragraph 5(b) of the present *Opinion* and 1943, *Bull. zool. Nomencl.* 1: 45, 55.

Stanford University, California, in the following letter dated 14th May 1935 :—

The undersigned students of the Mollusca feel that the International Commission on Zoological Nomenclature should render an *Opinion* on the following question :

Shall the names proposed by Chemnitz (1769-1795) stand?

It is agreed generally among conchologists that volumes later than volume eleven of the classic work of Martini and Chemnitz entitled "Conchylien Cabinet" contain names that are available. There is, however, no *Opinion* to cover Volumes I to II, inclusive, as far as we are aware.

The arguments in favour of accepting as available the names in Volumes I to II, inclusive, are as follows :

- (1) In many instances in these volumes, Chemnitz was both binary and binominal.
- (2) Other accepted authors, such as Bolten,² are not consistently binominal.
- (3) Because of his masterly presentation of data, many subsequent writers have referred to Chemnitz, and acceptance of his names would obviate much juggling of synonymy.
- (4) In Volume II, it is certain that he had accepted the Linnean system of nomenclature, and it is possible that he used it in earlier volumes.

The arguments against accepting Volumes I to II, inclusive, are as follows :—

- (1) Dall (1902 : 339) and others claim that Chemnitz is not consistently binominal in Volumes I to II, inclusive.
- (2) R. B. Stewart (1930 : 29) claims that *Opinion* 89³ might be an analogous case.
- (3) Acceptance would cause much label-changing.

² A comparison of the *Museum Boltenianum* (which in *Opinion* 96 has been accepted by the International Commission as available nomenclatorially) with Martini and Chemnitz shows that, unlike the latter, almost all the specific names used in the *Museum Boltenianum* consist of binominal combinations of generic and trivial names, as required by Article 2 of the International Code. Mr. R. Winckworth (London) has reported to the International Commission as follows (*in litt.*, 20th May 1944) :—

I examined every page of the *Museum Boltenianum* last night and found only 27 (out of 2,099) specific names, in which the trivial name was apparently two words. Most of these are phrases such as *Lambis pes pelecani* and *Serpula clava Herculis*, which are exactly paralleled by Linnaeus' *Bulla auris Midae* (1758, *Syst. Nat.* (ed. 10) 1 : 728) and *Cypraea caput serpentis* (1758, *ibid.* (ed. 10) 1 : 720), etc.; there are also a few adjectives, in which the component parts are printed apart as *Nerita nigro cincta* and *Cypraea quinque fasciata*; it seems reasonable in a book in which the printing is poor and many misprints occur to treat these names as equivalent to *Nerita nigrocincta* and *Cypraea quinquefasciata*. Two names only remain which seem to be really lapses from a binominal nomenclature, viz., *Nerita schmideliana sinistrorsa, fossilis* and *Nerita fascia lata* (nude).

³ In *Opinion* 89 the International Commission, acting under their plenary powers, suspended the rules in order to suppress six early zoological works. This action was taken without prejudice to the question whether any, or all, of these works were by authors who had not applied the principles of binary nomenclature and were therefore already invalid under proviso (b) to Article 25 of the International Code.

The literature covering the above case is as follows :—

- Martini, F. H. W., and Chemnitz, J. H., *Neues systematisches Conchylien-Cabinet*, vols. I—II, 1769—1795.
 Stewart, R. B., "Gabb's California Cretaceous and Tertiary Type Lamelli-branches," 1930, *Spec. Publ. Acad. nat. Sci. Philad.* 3 : 1—313, pls. 1—17.
 Bolten, J. F., *Museum Boltenianum*, Pars secunda, Hamburg, 1798.
 Dall, W. H., "Synopsis of the Family Veneridae and of the North American Recent species," 1902, *Proc. U.S. nat. Mus.* 26 : 335—412.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. The present case was communicated by Commissioner C. W. Stiles, Secretary to the Commission, to the members of the Commission for consideration in June 1935, with a suggestion that the Commission might find it possible to deal with the issues involved at their meeting due to be held at Lisbon in September of that year. This suggestion did not prove practicable and accordingly it was arranged that this case should be settled by correspondence.

3. In the following year a slightly different aspect of this case was raised in the following letter dated 23rd April 1936 from Miss Lois M. Schoonover, Palaeontological Research Institution, 126 Kelvin Place, Ithaca, New York :—

Would you please give me your opinion as to whether the names used by J. H. Chemnitz in the *Neues systematisches Conchylien-Cabinet*, vol. 6, 1782 and vol. 7, 1784, are valid *binominal* names? The particular references in question are as follows :—

Vol. 6, 1782, page 217. "Mactra cygnea testa triangulari, gibba, tumida, candida, antice quasi abscissa et truncata, leviter rugosa, ano cordiformi et tenuiter striato."

Vol. 6, 1782, page 318. "Venus divaricata Guinaica, testa cordata, diversimode bifariam striata, antice striis transversalibus postice longitudinalibus, margine crenulato."

Vol. 6, 1782, page 317. "Venus divaricata, teste cordata ex albo et fusco variegata, decussatim striata, strii a natibus bifariam ad utrumque latus divergentibus; rima lanceolata, oblitterata, ano ovata rufo, margine crenulato."

Vol. 7, 1784, page 61. "Venus plumbea Oceani Australis ad littus Guineae novae nuper inventa, testa subcordata, valde crassa, convexa, ponderosa, cinerea, inaequilatera antice gibbosiore, parum effusa, subangulata; postice angustata et rotundata in superficie imprimis penes marginem ambitus et in unbonum apicibus concentricae seu arcuatim rugosa, parte intermedia ad splendorem usque glaberrima; . . ."

From these I most wish to know whether you would consider that "*Venus plumbea* Chemnitz" is to be accepted as binominal.

4. In June 1936, Commissioner Stiles, then Acting Secretary to the International Commission, invited the members of the Commission to vote on an *Opinion* declaring that, if new generic names were contained in volumes I to II of Martini and Chemnitz's *Conchylien-Cabinet*, they were to be considered under the rules,

but that no new specific trivial name in those volumes was to be accepted. In amplification of this proposal, Commissioner Stiles added the following note :—

Dr. Bartsch and the Acting Secretary concur in the view that these volumes represent a typical instance of binary ⁴ but not binominal nomenclature, similar to the cases for which the rules were suspended in *Opinion* 89, namely, the authors designate genera by a single name but there is no consistency in the designation of the species, some of which are either intentionally or unintentionally binominal and others polynominal. Thus the authors use a binary system, naming two things, but are thoroughly inconsistent in the specific names.

It will be noticed that the volumes were published during the years of transition from the polynominal to the strictly binominal system.

Under this opinion if any new generic names occur, they must be considered nomenclatorially, but all new specific designations can be ignored.

If the application of the rules results in greater confusion than uniformity, it will be necessary for some one to request a suspension of the rules similar to action in *Opinion* 89. In examining the volumes, Dr. Bartsch did not notice any new generic names which would produce confusion.

5. In returning their votes on the proposed *Opinion*, only two Commissioners offered any special comments thereon :—

(a) *Comment by Commissioner Rudolf Richter*

Der *Opinion* wird nicht zugestimmt. Da die Gattungs- und Art-Namen den gleichen Nomenklatur-Regeln unterworfen sind, erscheint es widersinnig, in einem Werk nur die Gattungsnamen, nicht aber auch die Art-namen für yetfügbar zu erklären. Wie wir schon am 23. Juli 1935 ⁵ geschrieben, ist es empfehlens wert, *alle* in Martini & Chemnitz, 1769–1795 enthaltenen Namen zu *verwerfen*. Bei wichtigen Namen könnte von Fall zu Fall eine Suspension der Regeln erfolgen. In Gemeinschaft mit meinem Kollegen Dr. Mertens.

(b) *Comment of Commissioner Francis Hemming*

Jointly with Commissioners Jordan and Calman, I have carefully examined the copies of volumes I–II of the *Conchylien-Cabinet* of Martini and Chemnitz at the British Museum. The result of this examination may be summarised as follows :—

- (i) In these volumes the authors accept the concept of a 'genus' and that of a 'generic name' as those concepts are now understood, though in citing the names of species they sometimes omit the generic name.
- (ii) In none of these volumes do the authors use the Linnean system of binominal nomenclature.
- (iii) In some cases a species is cited under a binominal name but this is accidental in the sense that these authors clearly did not consider that a name, in order to be valid, must be formed in this way.

⁴ See footnote 1.

⁵ In the letter here referred to, Commissioner Richter had written :—
Es ist zu empfehlen, alle in Chemnitz, 1769–1795, enthaltenen Namen zu verwerfen, da das Werk nicht ganz eindeutig binär und binominal ist. Bei wichtigen Namen könnte von Fall zu Fall eine Suspension der Regeln erfolgen.

(iv) Martini and Chemnitz use a complicated system for grouping the species which they discuss. Names are given to groups of species within a given genus and these group-names are usually cited in the nominative plural, either with or without a qualifying adjectival phrase. Sometimes, however, these group-names are cited in the nominative singular as part of the names of species. The following are examples of these two latter types of case :—

- (a) In Volume 4 the species assigned to the genus *Buccinum* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1: 734, are divided into named groups of which one is called "*Buccina ore caniculato et rostrato Fusi.*" This group is itself divided into sub-groups, the second of which is called "*Fusi longi, clavacula longiore et rostro elongato.*" In the table given on p. 147 six species are placed in this sub-group. Of the names there used for these species, five are polynomial in form and one is binominal. For the first, third, fifth and sixth of these species, the word *Turris* is the first word used, while the word *Classicum* is the first word used for the second species and the word *Murex* is the first word used for the fourth species.
- (b) Volume 11 approaches much more closely to the binominal system than the earlier volumes and contains no cases such as that cited in (a) above. Nevertheless, in this volume also there are some group-names which might be mistaken for generic names. In the account, for example, of the genus *Helix* nearly all of the species are correctly cited with a name of which the first word is given as *Helix*. In two cases, however, this is not so. On p. 266, one species is given as '*Nux denticulata. Helix sinuata major*' and on p. 267 another is given as '*Gallina Sultana.*' Later, however, each of these species is correctly cited with the word *Helix* as the first word of its name, as '*Helix Nux denticulata, Helix sinuata major,*' and '*Helix Gallina Sultana.*'

(2) The conclusions to be drawn from the foregoing examination are as follows :—

- (i) Martini and Chemnitz should be regarded as having 'applied the principles of binary nomenclature' in volumes 1-11 of the *Conchylien-Cabinet*, if the meaning to be attached to that expression is the meaning adopted in *Opinion 20* rendered by the International Commission in the period 1908-1910 and published in 1910. Under this interpretation of the expression 'binary nomenclature,' any new generic name published by Martini and Chemnitz in these volumes is available nomenclatorially, provided that in other respects it satisfies the requirements of the Code; but no new specific trivial name published in those volumes is available nomenclatorially even if it is binominal in form.
- (ii) If, however, the expression 'binary nomenclature' is interpreted as having the same meaning as 'binominal nomenclature,' then Martini and Chemnitz in these volumes did not accept the principles of 'binary nomenclature' and in consequence new generic names published in these volumes fail to satisfy the requirements of proviso (b) to Article 25 of the International Code and therefore have no availability (hence no validity) in zoological nomenclature as from the date of being so published.
- (iii) The question which of the above interpretations of the expression 'binary nomenclature' is the correct interpretation of that expression is at present *sub judice*, since at Lisbon in 1935 it was expressly referred to the International Commission on Zoological

Nomenclature by the Twelfth International Congress of Zoology for deliberation and report. Until the International Commission submits its report and a decision on that report has been taken by the next (Thirteenth) International Congress of Zoology, no final decision can be given by the International Commission on the status of new generic names published in volumes I-II in the *Conchylien-Cabinet*. In these circumstances, clearly the only logical course for the International Commission to adopt in this case is to follow the precedent which they set at Lisbon in 1935 when dealing with the strictly analogous case of the *Introductio ad Historiam naturalem* published by Scopoli in 1777 (Lisbon Session, 4th Meeting, Conclusion II),⁶ that is to say to take the line that, until a final decision has been taken on the question of the interpretation of the expression 'binary nomenclature,' any new generic name published in volumes I-II of the *Conchylien-Cabinet* of Martini and Chemnitz should be accepted, if otherwise available, but that this question should be re-examined if later it is decided to reject generic names published by authors not applying the binominal system.

(iv) If in this case the Commission proceed as indicated in (iii) above, it will nevertheless be necessary to exercise considerable care in determining which are the generic (or sub-generic) names in volumes I-II of the *Conchylien-Cabinet* which may properly be regarded as satisfying the requirements of Article 25 of the Code. In this connection, it will be necessary to bear in mind the following considerations:—

- (a) no name has any status as a generic or sub-generic name, unless it is accompanied by an indication as defined in *Opinion 1*⁷ or a definition or a description;
- (b) names originally published before 1758 only acquire status in nomenclature when, on being republished, they are re-enforced by being adopted or accepted by the author who republishes them (*Opinion 5*⁸);
- (c) the mere citation in a post-1757 work of a bibliographical reference to a pre-1758 name confers no status upon that name (*Opinion 5*⁸);
- (d) the inclusion in a synonymy given in a post-1757 work of a pre-1758 name confers no status upon a name so cited (*Opinion 5*⁸);
- (e) where a not-strictly binominal author places an intermediate term between the generic name and the specific trivial name (as Linnaeus did in 1758 in some parts of the 10th edition of the *Systema Naturae*), no subgeneric status is thereby accorded to the intermediate term so used (*Opinion 124*);
- (f) a generic or sub-generic name takes priority only from the date on which, for the first time, it is published in the nominative singular (*Opinion 183*⁹).

⁶ See 1943, *Bull. zool. Nomencl.* 1: 37-38. The case here referred to was concerned with the status of the name *Anguina* Scopoli, 1777 (Class Nematoda) and has since been dealt with by the International Commission in *Opinion 160*.

⁷ See NOTE 5 to *Opinion 1* (1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1: 79-82).

⁸ See 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1: 115-126.

⁹ See 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 3: 13-24.

- (v) In order to secure availability under Article 25, any manuscript generic name published by Martini and Chemnitz in volumes 1-11 of the *Conchylien-Cabinet* will need to be accompanied by an indication (as defined in *Opinion 1*¹⁰) or by a definition or by a description.
- (vi) Of the points enumerated in (iv) above, point (a) eliminates all names for which no indication, definition or description is given; point (e) eliminates such names as *Nux* and *Gallina* (see paragraph 1(b) above); and point (f) eliminates from consideration a name such as *Fusus* where that name is used as a group-name in the nominative plural only (see paragraph 1(a) above).
- (vii) An inspection of volumes 1-11 of the *Conchylien-Cabinet* suggests that, after the principles set out in (iv) above have been applied—as they must be—to any new generic or sub-generic name published in that work, the number of such names which will be found to be available under the Code will be very small.

6. By October 1936 a sufficient number of Commissioners had recorded their votes in favour of the proposed *Opinion* in order to secure its adoption as an *Opinion* of the Commission. The papers relating to the present case were among the first to be transferred from Washington to London after the election (on 6th October 1936) of Commissioner Hemming to be Secretary to the Commission and on 31st December 1936 Commissioner Hemming, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot in this case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

7. The decision taken by the Commission in the present case is:—

- (a) that, for so long as generic names published by authors using a system of nomenclature which, though not binominal, is of the type hitherto accepted as falling within the definition of binary nomenclature, are accepted as complying with the requirements of Article 25 of the International Code, any new generic name published in volumes 1 to 11 of Martini (F. H. W.) and Chemnitz (J. H.) *Neues systematische Conchylien-Cabinet*, Nürnberg, 1769-1795, is to be accepted as available nomenclatorially, but that the position should be re-examined if later it is decided to reject generic names published by authors not applying the binominal system;
- (b) before a new name published by Martini and Chemnitz in the volumes referred to above is accepted as available as a generic or sub-generic name as from the date of such publication it will be necessary to establish that it satisfies the provisions of the Code in all respects, for example:
 - (i) that it was accompanied by an indication as defined in *Opinion 1* or a definition or description;
 - (ii) that, if a pre-1758 name, it complies with the provisions of *Opinion 5*;

¹⁰ See 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature 1*: 73-86.

- (iii) that it was not used by Martini and Chemnitz as an intermediate term in the manner declared in *Opinion* 124 as affording no status as a sub-generic name as from the date on which it was so published;
 - (iv) that the name was published in the nominative singular (*Opinion* 183).
- (c) that, in view of the fact that Martini and Chemnitz did not apply the system of binominal nomenclature in the volumes referred to above, no specific or subspecific trivial name published therein has any status in nomenclature, even when such a name is published respectively as the second or third term in a binominal or trinominal combination.

8. The following ten (10) Commissioners voted in favour of the present *Opinion* :—

Calman; Chapman; Esaki; Fantham; Hemming; Jordan; Peters; Silvestri; Stiles; and Stone.

9. One (1) Commissioner, namely Commissioner Richter, voted against the present *Opinion*.

10. The following five (5) Commissioners did not vote on the present *Opinion* :—

Apstein; Bolivar y Pieltain; Cabrera; Pellegrin; and Stejneger.

11. At the time when the vote was taken on the present *Opinion* there were two vacancies in the membership of the Commission. These were due to the death of Commissioner Handlirsch and the resignation of Commissioner Horváth.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the By-Laws of the International Commission on Zoological Nomenclature provide that, except in cases involving the suspension of the rules, an *Opinion* is to be deemed to have been adopted by the said International Commission as soon as a majority of the Members of the Commission, that is to say ten (10) Members of the said Commission, have recorded their votes in favour thereof, provided that, where any proposed *Opinion* involves a reversal of any former *Opinion* rendered by the Commission, such proposed *Opinion* shall obtain the concurrence of at least fourteen Members of the Commission voting on the same before such *Opinion* is to be deemed to have been adopted by the Commission; and

WHEREAS the present *Opinion*, as set out in the summary thereof, neither requires, in order to be valid, the suspension of

the rules, nor involves a reversal of any former *Opinion* rendered by the Commission; and

WHEREAS ten (10) Members of the Commission have signified their concurrence in the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Eighty Four (*Opinion* 184) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this fifteenth day of July, Nineteen Hundred and Forty Four, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

THE PUBLICATIONS OF THE COMMISSION.

(obtainable at the Publications Office of the Commission at 41, Queen's Gate, London, S.W.7.)

Bulletin of Zoological Nomenclature.

This journal has been established by the International Commission as their Official Organ in order to provide a medium for the publication of:—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

The *Bulletin* was established in 1943, in which year three Parts were published. Part 4 has been published in 1944 and Parts 5 and 6 are in the press.

Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature.

The above work is being published in three volumes concurrently, namely:—

Volume 1. This volume will contain *Delcarations* 1-9 (which have never previously been published) and *Opinions* 1-133 (the original issue of which is now out of print). Parts 1-15 (containing *Declarations* 1-9 and *Opinions* 1-6) have now been published. Further Parts will be published shortly.

Volume 2. This volume will be issued in 52 Parts, comprising all the decisions taken by the International Commission at their meeting at Lisbon in 1935, namely *Declarations* 10-12 (with Roman pagination) and *Opinions* 134-181 (with Arabic pagination). Part 52 will contain the index and title page of the volume. Parts 1-26, containing *Declarations* 10-12 and *Opinions* 134-156, have now been published. Further Parts will be published shortly.

Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-4 (containing *Opinions* 182-185) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £773 13s. 7d. were received up to 30th June 1944. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

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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

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OPINION 185

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 185.

SUPPRESSION OF BOHADSCH (J. B.), *DE QUIBUSDAM ANIMALIBUS MARINIS*, 1761, AND OF THE GERMAN TRANSLATION THEREOF PUBLISHED BY LESKE (N. G.) IN 1776.

SUMMARY.—Under suspension of the rules Bohadsch (Joannes Baptista), 1761, *De quibusdam Animalibus marinis*, and the German translation thereof published by Leske (Nathaniel Gottfried) in 1776 are hereby suppressed for all nomenclatorial purposes.

I.—THE STATEMENT OF THE CASE.

In 1933 Dr. H. Engel, Conservator, Zoologisch Museum, Amsterdam, submitted to the International Commission a request that the Commission should suspend the rules under their plenary powers for the purpose of suppressing the work published in 1761 by Joannes Baptista Bohadsch under the title *De quibusdam animalibus marinis*. The following is the petition submitted by Dr. Engel:—

ARE THE GENERA AND SPECIES OF BOHADSCH, 1761, TO BE ACCEPTED?

by

Dr. H. Engel,

Zoologisch Museum, Amsterdam

Joann. Bapt. Bohadsch, Philos. et Med. Doctoris, suae S.C.R.A. Majestatis in Commercialibus Consilarii, in Universitate Pragensi Histor. Natur. Professoris, Facult. Med. Decani, nec non Academiae Botan. Florentinae Sodalis. *DE QUIBUSDAM ANIMALIBUS MARINIS*, eorumque proprietatibus, orbi litterario vel nondum vel minus notis, Liber cum nonnullis tabulis seri incisus, ab auctore super vivis animalibus delineatis. Dresdae 1761. Apud Georg. Conrad. Walther.

Studying the status of the generic names *Aplysia* and *Tethys*, I found in Pilsbry's paper on this subject ("On the Status of the Names *Aplysia* and *Tethys*," in *Proc. Acad. nat. Sci. Philad.* 1895, pp. 347-350), that Bohadsch's name *fimbria* (first given in the opus cited above, for the Mediterranean Nudibranchiate Mollusc known as *Tethys leporina* L.) had to be rejected, as its author did not use binary nomenclature.¹

¹ At Lisbon in 1935 the Permanent Committee of the International Zoological Congresses referred the question of the meaning of the expression "binary nomenclature" to the Chairman of the Section on Nomenclature of the Twelfth International Congress of Zoology, by whom this question was in turn referred to the International Commission on Zoological Nomenclature for deliberation and report. This invitation was accepted by the International Commission (Lisbon Session, 5th Meeting, Conclusion 3(b)) (for the text of which see 1943, *Bull. zool. Nomencl.* 1: 45, 55). In accordance with that decision, a report on this subject will therefore be submitted by the International Commission to the International Congress of Zoology at its next meeting. At the present time, therefore, the meaning of the expression "binary nomenclature" is *sub judice*.

In 1926 however O'Donoghue ("A List of the Nudibranchiate Mollusca recorded from the Pacific Coast of North America," in *Trans. R. Canadian Institute*, No. 34, Vol. 15, Pt. 2, p. 226) observed that Bohadsch is not strictly speaking a binominalist, but in his descriptions, as he stated, he was dealing with genera.

This remark led me to the study of the book of Bohadsch, with the aim to make out whether his generic names had to be rejected or had to be accepted. My opinion is that Bohadsch intended to use the rules then newly laid down by Linnaeus in his *Fundamenta Botanica* (and later on explained more explicitly in his *Philosophia Botanica*, 1790, from which I have quoted one of these rules below). The tenth edition of Linné's *Systema Naturae* was received by Bohadsch when his manuscript was ready (as he informs us p. 52). It was in this edition that Linnaeus for the first time consistently used binary nomenclature,² trying to sum up in a specific name the specific characteristics of the animal. Till then this short "diagnosis" consisted of as many (or better, as few) words as were necessary to characterise the species, and so often consisted of two, three or more words. Linné's specific name, most often not sufficing to give a full characteristic of the species, was followed since the said 10th edition by a short diagnosis. Now a difficulty arises when Bohadsch, like other authors of the period, e.g. Müller, *Zool. danic. Prodr.*, gives, as the first word of the short diagnosis, a word that can easily be regarded as the specific name. Often this word is followed by a comma or simply placed apart; it often seems to emancipate itself in a certain sense from the rest of the diagnosis. We may ask, was it the intention of Bohadsch and his colleagues in such cases to regard this first name as the specific name? The answer can be "yes" and "no." Sometimes the animal is designated by its generic name plus the short diagnosis, sometimes by the first word only, followed by "etc.", sometimes again the species are designated by their number (e.g. "altera *Tethyi* species") and lastly in some cases one specific name is given to each species and this name is further used to designate the species. It is my opinion that we must take into account the fact that the authors wanted some time to adapt themselves to Linné's rules. Especially, Bohadsch, who, as said above, got the 10th edition of the *Systema Naturae* while preparing his manuscript for the printer, cannot be expected to use binary nomenclature² as we do it now. It was not yet an iron law to him. But when we see that he often quotes one of Linné's rules and tries to adapt his nomenclature to it, and in many cases uses binary nomenclature as he ought to,² we must forgive him his little transgressions. In any case we cannot neglect the cases where Bohadsch behaves like a good binominalist!

It is only in the monospecific genera that Bohadsch omits the specific designation, thereby following again Linné's rule "*Nomen specificum nullum, speciei in suo genere solitariae, imponi potest*" (I quote from *Phil. Bot.* p. 231).

Our conclusion must be that, although the case is doubtful, there are many reasons to regard Bohadsch's names as valid. If this be done, however, it will lead to "greater confusion than uniformity" and therefore it is proposed that the Commission on Nomenclature shall decide that Bohadsch, 1761, is *not* valid. This seems best, though it were a poor recognition of Bohadsch's eminent zoological work.

In a certain sense the Commission has already given an *Opinion* which, though not intentionally, invalidated one of Bohadsch's generic names. The name *Hydra* Bohadsch, 1761, has priority over *Holothuria* L., 1767, which name was placed in the *Official List*. See *Opinions* 77 and 80, where Bohadsch's name is not mentioned, probably because the appellants regarded him as a non-binominalist. A revision of the case is, happily, not necessary, as *Hydra* Bohadsch, 1761, as preoccupied by *Hydra* L., 1758

² See footnote 1.

(for the Coelenterate genus) and because, as said, the name *Holothuria* L., 1767, was placed in the *Official List*.

In the following I give some quotations from Bohadsch's work, proving that he can be regarded as a binominalist:—

In his *Praefatio* Bohadsch remarks on the third page: "Nam juxta Cl. Linnaeum *sepia* nomen genericum est, sub quo *Polypus*, *loligo* et *sepia* proprie dicta continentur."

In Caput I he describes *Lernaea* (i.e., our Tectibranchiate Mollusc *Aplysia* auct.), and, as Blochmann, in "Die im Golfe von Neapel vorkommenden Aplysien," in *Mitth. a. d. Zool. Stat. z. Neapel*, v. 1884, p. 41, remarks, he used for his description the two Mediterranean species, *A. depilans* auct. and *A. fasciata* auct. In § II (pp. 2–3) Bohadsch discusses the use of the name *Lernaea* (which was given by Linnaeus in the earlier editions of the *Systema Naturae*, including the 9th, Lugduni Batavorum, 1756), in preference to the older name *Lepus marinus*. I quote this paragraph *in extenso*:—"Placuit hocce minus notum animal sub nomine *lernaeae*, quod a Cl. Linnaeo accepit, describere, quam nomen leporis marini, quo Veteris illud insignivere, ei adjicere. Idque ideo vel maxime, quia simpliciter *lepus* illud appellare consultum non erat, ne quis crederet, de lepore terrestri me verba facere. Ly[sic] *marinus* vero addere vetat lex a Cl. Linnaeo in fundamentis botanicis sancita, qua nomina generica ex duobus vocabulis integris ac distinctis facta releganda esse statuit. Novum vero nomen ei adjicere pro incongrui habui: cum animal non ignotum, sed imperfecte duntaxat notum naturae curiosus esset, et nomen suum jam haberet. Plura enim nomina eidem rei assignata confusionem pariunt, et memoriam per se labilem inutiliter agravant deteruntque. Unde quemadmodum haecce denominandi libido apud Botanicos minime placet, ita apud Zoologos illam nunquam exoriri plurimum opto. Jam vero ipsam *lernaeae* historiam aggrediar."

So Bohadsch knows the rules laid down by Linnaeus and applies them. As pointed out, we must take into account the fact that they were quite new then, and we cannot expect Bohadsch to regard them as intransgressible laws!

The name *Lernaea* itself was preoccupied by Linné in the 10th edition of the *Systema Naturae*, p. 655, for the well-known parasitic Copepod, as Bohadsch, who in preparing his paper had used the "VIth edition, Parisii 1744" (not mentioned by Linné in the 10th! in his "Ratio Editionis"), notes himself at the end of this first Caput:—"De *Lernaea*." He gives vent to his annoyance over Linné's frivolous handling of names in a more or less sarcastic remark. I quote from pp. 52–53:—"Dum manuscriptum praesentis opusculi Typographo exhibere voluerim, ab eodém Cl. Linnaei decimam systematis naturae (p. 53) editionem accepi. Nolens itaque ut opus quaecumque meum praelo subjiceretur, priusquam dictam systematis editionem perlustrarem, mirabundus in ea conspexi Cl. Virum *Tethyos* nomen *lepori marino* adjecisse, sub *lernaeae* vero nomine *pediculum salmonis* etc. collocasse. Cupiebam primo hocce aspectu nomen meae *lernaeae* permutare, quia vero ex caractere generico *Tethydi* apposito simul intellexi, quod gravissimus Vir neque sub *lernaeae* editionis Parisiensis, neque sub *Tethydis* nomine editionis decimae *leporem marinum* bene noverit; consultis esse censui, assumptum nomen relinquere, et Cl. Linnaeo amatam occasionem concedere; ut in undecima editione alio rursus nomine hocce animal insigneret. Nam *Tethydem* illud haud deinceps appellabit, cum *lernaea mea*, quae proprie *Lepus marinus* Veterum est, in medio nullum *Corpusculum cartilagineum* oblongum habeat, neque *tentaculis cuneiformibus*, minus denique *foraminibus spirantibus* instructa sit. Ut quidem Cl. Linnaeus ex aliis auctoribus pro caractere generico erronee assumit." So the diagnosis of *Tethys* L., 1758, is wrong! There are more reasons to reject this name and use the well-known name *Aplysia* L., 1767.

In Caput II Bohadsch describes *Fimbria* (i.e., as stated above, the Medi-

terranean Nudibranchiate Mollusc, with the great mouth-veil, known as *Tethys leporina* L.). In §§ VII, VIII and IX, the author discusses this new genus as being quite distinct from the other animals till then united with it under the name *Lepus marinus*. On pp. 62-63 he states:—"Liceat mihi . . . *Fimbriae* . . . ac *lermaeae* . . ., utramque tanquam distinctum Zoophytorum genus proponere," which can only be interpreted as the description of a new genus in the sense of Linnaeus!

If the rules are strictly applied, and if Bohadsch is regarded as valid, this name *Fimbria* has to be used for the said *Tethys leporina* auctorum. According to *Opinion* 46 we get the name of the species by tautonymy, *Fimbria fimbria*, as O'Donoghue already used it (l.c.).

As I hope that the Commission will give an *Opinion* that the names *Aplysia* and *Tethys*, as they were used by Linnaeus, 1767, have to be placed on the *Official List*, I propose to use the name *Tethys leporina* as it has been used till now by authors in general, pending action upon possible suspension of the rules in this case.

The third animal described by Bohadsch is *Argus* (i.e., our *Platydoris argo*). On p. 65 he quotes Linnaeus: "Quaecunque genere conveniunt, eodem nomine generico designanda sunt. Quaecunque genere differunt, diverso nomine designanda sunt. Nomina generica, quae characterem essentialem vel faciem rei exhibent, optima sunt. Qui novum genus constituit, eidem nomen etiam imponere tenetur," and he continues: "Hae et sexcentae aliae regulae a Cl. Linnaeo (vide Fundamenta ejus Botanica) naturae curiosis praescriptae sunt. His insistent et ego a nemine spero reprehendar, quod nunc describendo animali *Argi*, monstri illius Poetarum centum oculis praediti, nomen imposuerim; quod etsi characterem animalis genericum ex integro non designet, unam saltem ejus notam eviderenter denotat . . ." and p. 66:—"Verum quia Cl. Linnaei systema hac in parte potissimum sequor, hic vero nulli animali *argi* nomen adjecerit, spero nullam inde nascituram confusionem, si in ordine *Zoophytorum* novum genus collocetur, quod *argi* nomine insignitum est." And § VI, p. 71:—"Ex hac attamen qualicunque *Argi* historia patet: illum cum nullo Zoophytorum genere a Cl. Linnaeo descripto convenire. Hinc liceat quasdam ejus notas characteristicas sequenti definitione exprimere . . ." He then proceeds to give the reasons why he does not unite this genus with *Limax* nor with *Lermaea*, and he always speaks of *Argus* as a genus.

When a man quotes the rules of Linnaeus, tries to use them, discusses their application, it is my opinion that his work has to be regarded as valid, unless it be invalidated by an *Opinion* of the Commission on Nomenclature:

As Linné's Rules asked no specific name in a monospecific genus, it is quite clear that *Argus argus* is the type-species of the genus *Argus* (which later on, by Bergh, 1877, *Jahrb. d. D. Malakozool. Ges.* iv. p. 73, has been named *Platydoris*). In the case that Bohadsch is valid, the name *Argus* has to replace *Platydoris*. There seems to be no serious objection to this change, as the name *Platydoris* seldom occurs in general zoological literature. The specific name *argus* is in use and only changes its author from Linnaeus to Bohadsch.

Chapter IV deals with *Hydra*. This is the animal now known as *Holothuria tubulosa* Gmelin. The name *Hydra* was used by Linnaeus in the earlier editions of the *Systema Naturae* for animals with "Corpus cylindricum. Tentacula ad circumferentiam capitis" (I quote from the edition of 1756, Lugduni Batavorum, cited in the 10th edition as the 9th *per Gronovium*), which diagnosis was changed in the 10th edition, p. 816, and restricted to the Coelenterate species. As I already remarked, Bohadsch says he used the 6th edition of the *Systema Naturae*, Parisii, 1744 (not mentioned in the "Ratio Editionis" in the 10th edition). As his work was ready, he received the 10th edition and he says, pp. 75-76:—"Cl. vero Linnaeus (vide *Systema Naturae*, edit. VI.) Hydrae nomen nostro Zoophyto imposuit, quod quidem nomen genericum est, comprehendens: *Mentulam*

et *polypum paludosum* tanquam species. Meo videre *polypus palustris* proprium genus constituit, et ob singulares suas proprietates, diversamque formam, ad *Hydrum* reducendus non est. Haec enim juxta Cl. Linnaeum (vide *Systema Naturae*, edit. VI.) corpus habet *cylindricum*, *tentacula plura in circumferentia capitis*, qui character optime *Mentulae* Veterum, minime vero omnibus *polyphi palustris* Recentiorum speciebus convenit. Unde optarem, ut sola deinceps *Mentula* et hujus detegendae species *Hydra* nomine intelligerentur. Contrarium tamen huic meo voto Cl. Linnaeum fecisse in systematis naturae editione decima (vide p. 816) observo; qui sub *Hydra* genere varias duntaxat *polyphi paludosi* species locavit, mentulae vero marinae in toto systemate animali oblitus est."

We see that here Bohadsch is the good zoologist, who clearly describes a genus *Hydra* for our Sea-Cucumbers and a genus *Polypus* for the Coelenterates. And after describing the genus, Bohadsch, as a good binomialist, gives an enumeration of the species belonging to it (pp. 92-93): "Si corporis magnitudo et colorum varietas in denominandis animalium speciebus locum habeat, sequentes *Hydrae* species enumerari possunt: *Hydra major, ex fusco, albo, et rufescente variegata*; Epipetrum auctorum. *Hydra tota fusca, Hydra minor ex fusco lutea*. Hae quidem et non aliae toto eo tempore, quo Neapoli degebam, in manus meas venerunt."

We could criticize the use of a diagnosis the first two words of which constitute the name. But here Linnaeus gave the example. The name *tota-fusca* is printed in two words, but these two are much closer to each other than any of two other following or foregoing words in the book, and we have to regard them as belonging together as long as we regard as valid such specific names as *wyville-thomsoni* or *albo-fusca*, or to use a more closely allied example: *tota-cinerea* (*Muraena*, Forskål, *Descr. Anim.* 1775, p. 22).

As I remarked above, we have, applying the rules, to use *Hydra* L., 1758, for the Coelenterates, as this name antedates *Hydra* Bohadsch, 1761. Further, *Opinion* 80 places *Holothuria* L., 1767, on the *Official List* for the sea-cucumbers. So this case gives no more difficulties as regards the generic names involved.

But the specific names used by Bohadsch—*major*, *tota-fusca*, and *minor*—have to be used, if Bohadsch is valid and if these species can be identified. In the 12th edition Linnaeus, p. 1090, quotes:—"Bohadsch, Mar. 75, t. 6 *Hydra*" under "*Holothuria tremula*," together with "Gunn. Act. Stockh. 1767," "Habitat in Oceano Norvegico," while Bohadsch clearly stated that he fished his animals near Naples! In the 13th edition, Gmelin (p. 3138) names the animal of Gunnerus: *Holothuria frondosa*, while the *Holothuria tremula* L., 1758, is united with many other quotations, and with "Bohadsch anim. mar. p. 75, t. 6 et t. 7 f. 1-5 *Hydra*," under *Holothuria tubulosa*, which name has since then been used. It is not easy to make out if the three species of Bohadsch correspond to three different species of the Neapolitan coasts, but it seems most probable that they all three belonged to the species known as *H. tubulosa* (cf., for example, Koehler, 'Les échinodermes des mers d'Europe,' ii. Doin, Paris, 1927, pp. 231-234). So if Bohadsch is regarded as valid, the rules ask us to change the well-known name *Holothuria tubulosa* Gmelin, 1791, to *Holothuria major* Bohadsch, 1761.

Caput V describes the genus *Syrinx* (i.e., our *Sipunculus*, and the species Bohadsch examined was *nudus* L. 1767, p. 1078). Here again we have the description of a genus as Bohadsch clearly states (p. 96: "novum genus ex eo creaverim" and p. 97: "novum *Zoophytorum* genus"). But as it is a monospecific genus, Bohadsch gives only one name. If Bohadsch is regarded as valid, and the rules are strictly applied our well-known *Sipunculus nudus* L., 1767 has to receive the name *Syrinx syrinx* Bohadsch, 1761.

The next, Caput VI, gives a description of the genus *Penna*, now known as *Pennatula* L., 1758 (p. 818). Bohadsch prefers the name *Penna*, because he sees no reason for Linné's diminutive *Pennatula*. From his § II, p. 100,

we may again quote a passage in favour of our standpoint:—"Quum plures *Pennae* species curiosorum oculis praeponere possim, necessum est, et quidem contra receptum ordinem, characterem ejus genericum vel generalem definitionem praemittere." And as the species belonging to this genus he names: "*Penna rubra*, *pennis falciformibus, tentaculis in pinnarum facie concava positis*. Seu *Penna stirpe rachi utrinque pennato*. Vel *Penna Phosphorea* Linn. (Syst. Nat. edit. 10, p. 818). *Penna grisea*, *pinnis convexo planis tentaculis in pinnarum facie convexa positis*. *Penna rubescens*, *pinnis carens, tentaculis in corporis trunco positis*, *Penna ramosa*, *pinnis carens tentaculis in ramis positis*."

The first of these species, *Penna rubra*, is a synonym of *P. phosphorea* L., 1758, as Bohadsch himself informs us, and, like the generic name *Penna*, it is invalidated by Linnaeus, 1758. *Penna grisea* was cited by Pallas, 1766,³ in his 'Elenchus zoophytorum,' p. 367, as *P. grysea* and from thence passed under that name (*P. grisea*) in literature. It is now known as *Pteroides grisea*. The third species, *P. rubescens*, is known as *Funiculina quadrangularis*; the trivial name was given by Pallas (l.c. p. 372). It is difficult to decide whether Bohadsch proposed (p. 101) *rubescens* as a specific name! He gives a short diagnosis there (cited above) of which the first word is *rubescens*. In the description of this species (p. 112 seq.) he only says:—"cum lingua vernacula *Penna del pesce pavone* illam vocitent." This seems to be a point against Bohadsch's binominalism! He does not definitely propose a name, neither does he use the first word of the diagnosis in the further description! It may be a point of discussion whether this species has to be called *P. rubescens* Bohadsch or keep its well-known name *P. quadrangularis* Pallas. The fourth species is described by Pallas (l.c. p. 349) as *Alcyonium palmatum*. He quotes the short diagnosis of Bohadsch which we quoted above. Again; here we may ask whether the first word of Bohadsch's diagnosis (*ramosa*) has to be regarded as the specific name? In the description of the animal he says, p. 114:—"a me vero *Penna ramosa*, *pinnis carens, tentaculis in ramis positis* appellatur," and p. 117 he says:—"quartam *Pennae* speciem seu *manum marinam*." So, like the third species, the fourth forms a point of doubt against Bohadsch's binominalism.

The last chapter, VII, deals with the genus *Tethyum* being a synonym of *Ascidia* Linnaeus, ed. xii. 1767, p. 1087. Bohadsch discusses the name *Tethyum*, gives a generic diagnosis, and then names the following species (p. 130):—" *T. vulgare, coriaceum, gelatinosum, membranaceum*." In § II, he describes *Tethyum coriaceum*, in § III *Tethyum gelatinosum*, and in § IV *Tethyum membranaceum*, which he there proposes to call *T. fasciculatum*, under which name he already mentioned it on p. 78.

Linnaeus in the 12th edition, p. 1087, mentions under *Ascidia* six species, of which the first three are founded on the three species described by Bohadsch. The first, *T. coriaceum* Bohadsch, he names *Ascidia papillosum*, the second *Ascidia gelatinosum*, which is *T. gelatinosum* Bohadsch, and the third, *Ascidia intestinalis*, is identified with *T. fasciculatum* Bohadsch. The last species Linnaeus regards as synonym of "Baster, subs. 2, p. 84, 6 10. f. 5?" and "Act. nidros,* iii. p. 81, t. 3. f. 3, 4. *Tethyum*" and probably, therefore, gives: "Habitat in Oceano Europaeo," though Bohadsch found his animal at Naples.

Gmelin, in the 13th edition (p. 3123), copies this all, omits the point of interrogation after Baster, and under his 13th species *canina* (p. 3125), he again quotes "Bohadsch anim. mar. p. 132, t. 10. f. 4, 5. *Tethyum fasciculatum*," a somewhat careless proceeding; but, in fact, he was right, for, as Hartmeyer, in Bronn's 'Klassen und Ordnungen' (1908), informs us (p. 1414), the two species *A. intestinalis* and *A. canina* are identical and are now known as *Ciona intestinalis* (L.).

* = Det Tronghjemske Selskabs Skrifter, iii. (1765).

³ This species was cited by Pallas as *Pennatula grysea*.

In 1908 Hartmeyer published in the *Zoologische Annalen*, iii. pp. 1-63, "Zur Terminologie der Familien und Gattungen der Ascidien," and there he gives (p. 9) a chronological history of the names, and on p. 10 he says of our Bohadsch's name *Tethyum*: "Es kann kein Zweifel darüber obwalten, dass dieser Gattungsname durchaus im Sinne der binären Nomenklatur gebildet ist und demnach zu Recht bestehen bleibt." Then he deals with the history of the name *Tethyum* and how it is divided in different genera, till (p. 13) he comes to the conclusion that it is (after elimination of the other species) used for *T. rusticum* and *T. quadridentatum* of Linnaeus, 1767. These belong to the genus *Styela* Fleming, 1822. Accordingly, Hartmeyer used in his edition of Bronn, 1908, p. 1357, the name *Tethyum* for Fleming's *Styela*. Later on, preparing Apstein's "List of Nomina conservanda" (*Sitz. Ber. Ges. Naturf. Freund. Berlin*, no. 5, Mai 1915), he replaces this name again by *Styela* Fleming, 1822. In his "Ascidiarum Nomina Conservanda" (in *ibidem*, Jahrg. 1915, no. 6) he says no more about this.

If Bohadsch is valid, the name *Tethyum* must be used for one of his three species. If the first is chosen it has to replace *Halocynthia* Verrill, 1879, if the third is chosen (because the binary use of the second is doubtful) it has to replace the well-known *Ciona* Fleming, 1822. Such a change were the more to be regretted, as *Tethya* is a well-known genus of Sponges!

The three species of Bohadsch are now bearing the following names:—*T. coriaceum* = *Halocynthia papillosa* (L.); *T. gelatinosum* = perhaps identical with *Phallusia mentula* (Müll.), 1776; *T. fasciculatum* = *Ciona intestinalis* (L.).

As we remarked above, Bohadsch first designated the first species as *T. coriaceum*, *asperum*, *coccineum*, *organorum orificiis setis exiguis munitis*. In the description in § II he speaks of the species "*T. coriaceum*, etc." The second species is first designated in the same way, later on (§ III) he speaks of "altera *Tethyi* species." The third species is like the others, first designated with a short diagnosis, which begins with "*T. membrana-ceum*," but later on (§ IV, p. 132) he says:—"Unde *Tethyum fasciculatum* non inepte diceretur." So, be it that in his designation of the first two species Bohadsch seems to be no binomialist, we will have to replace the well-known name *Ciona intestinalis* by *Tethyum fasciculatum* Bohadsch, if the Commission is of the opinion that Bohadsch's names are valid.

So our conclusion is that in many of the cases considered Bohadsch's names may be regarded as valid. But, since the change involved would result in greater confusion than uniformity, it is proposed to the Commission on Nomenclature to declare Bohadsch's names invalid.

Summary.

If Bohadsch is regarded as valid:—

- Fimbria fimbria* Boh. has to replace *Tethys leporina* L. auctorum.
- Argus argus* Boh. has to replace *Platydoris argo* (L.) auctorum.
- Holothuria major* Boh. has to replace *Holothuria tubulosa* Gmel. auctorum.
- Syrinx syrx* Boh. has to replace *Sipunculus nudus* L. auctorum.
- Pteroides grisea* (Boh.) has to replace *Pteroides grisea* (Pallas) auctorum.
- Perhaps *F. rubescens* (Boh.) has to replace *Funiculina quadrangularis* (Pall.) auctorum.
- Perhaps *Alcyonium ramosus* (Boh.) has to replace *Alcyonium palmatum* Pall. auctorum.
- Tethyum* Boh. has to replace *Halocynthia* Verrill or *Ciona* Fleming.
- Perhaps *Tethyum coriaceum* Boh. has to replace *Halocynthia papillosa* (L.) auctorum.
- Tethyum fasciculatum* Boh. has to replace *Ciona intestinalis* (L.) auctorum.

This would include the change of so many old and well-known names that "greater confusion than uniformity" would ensue. So an *Opinion* is asked declaring Bohadsch's names invalid.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. Owing to the length of the petition submitted by Dr. Engel, the resources then at the disposal of the Commission were not sufficient to permit of the reproduction of copies for distribution to each member of the Commission.⁴ Accordingly arrangements were made for Dr. Engel's petition to be published,⁵ so that thereby his proposals might be made accessible for study. As soon as separates of Dr. Engel's paper were available (June 1935), such copies as were supplied were distributed to the members of the Commission for consideration.

3. Both the original edition of Bohadsch's work published in 1761 and also Leske's German translation published in 1776 were examined in the spring of 1936 by Commissioner C. W. Stiles (then Acting Secretary to the Commission). In the same period Commissioner Stiles conferred by correspondence with the President of the Commission (Commissioner Karl Jordan) in regard to this case and also with Commissioner James L. Peters. Commissioner Stiles discussed it also with Dr. Henry A. Pilsbry, Curator, Department of Mollusks and Marine Invertebrates, Academy of Natural Sciences of Philadelphia, and with Dr. Paul Bartsch, Curator of Mollusks and Cenozoic Invertebrates, United States National Museum, Washington. In the light of these discussions, Dr. Stiles prepared the following note which in June 1936 he circulated for the consideration of members of the Commission :—

Both the original of 1761 and the translation by Leske, 1776, have been examined by the Acting Secretary and this examination leaves no doubt in the mind of the Acting Secretary that Bohadsch considers that he is dealing with genera in the Linnean sense, as becomes especially clear from his discussion on p. 53 of the 1761 edition.

As Engel points out, this work appeared in the transitional period between polynomial and binomial nomenclature.

The conclusion of the Acting Secretary is that it is difficult to deny that Bohadsch recognizes a binary⁶ (not clearly binomial) system, but that the work is certainly not consistently binomial and that, if adopted under the rules, it will furnish a distinct possibility for long and expensive discussions, the ultimate outcome of which is exceedingly doubtful and will result in much confusion.

⁴ This type of difficulty will fortunately not recur in view of the decision of the Commission to establish its own journal, the *Bulletin of Zoological Nomenclature*, in which in future all proposals submitted to the Commission will be published.

⁵ Dr. Engel's petition was published in May 1934, *Ann. Mag. nat. Hist.* (10) **13**: 529-540.

⁶ See footnote 1.

Accordingly; on the foregoing premise, the Acting Secretary recommends that the rules be suspended, and that Bohadsch, 1761, and 1776, be excluded from all consideration, under the rules, on the ground that its adoption will produce greater confusion than uniformity.

4. At the same time Commissioner Stiles circulated to members of the Commission voting papers in favour of the adoption of an *Opinion* in the sense indicated in his note quoted above.

5. In July 1936, this case was duly advertised in the manner prescribed in proviso (a) to Article 1 of the Plenary Powers Resolution⁷ adopted by the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913.

6. By September 1936 a sufficient number of affirmative votes had been received to secure the adoption by the Commission of the proposed *Opinion*, provided that the advertisement referred to in the preceding paragraph did not evoke any serious objection to that course.

7. The only Commissioner to add any observations when recording his vote on this case was Commissioner Francis Hemming, who wrote:—

I have examined, jointly with Commissioners Jordan and Calman, the copy of Bohadsch's *De quibusdam Animalibus marinis* in the library of the British Museum and I have no doubt that, although Bohadsch was not a strictly binominal author in this work, he did endeavour to follow the rules of nomenclature enjoined by the Linnean system. Whether in this work Bohadsch can be considered as having applied "the principles of binary nomenclature" within the meaning of Article 25 of the International Code must remain a matter of doubt until, on the presentation of the report which the International Commission have been requested to furnish, the Thirteenth International Congress of Zoology reaches a final and authoritative decision as to the meaning to be attached to the term "binary nomenclature."⁸ Fortunately, these doubts as to the status of Bohadsch's work in no way prevent the use by the International Commission of their plenary powers for the purpose of directing that it is to be suppressed for all nomenclatorial purposes; for such a decision in no way prejudges the question whether, apart from the use of the Commission's plenary powers, this book would or would not be available under the Code.

I consider that Dr. Engel has established a case for the complete suppression of Bohadsch's book for all nomenclatorial purposes and I accordingly vote in favour of the proposed *Opinion*. If this *Opinion* is adopted by the Commission, the effect will be to place the *De quibusdam Animalibus* in the same position as that in which the so-called "Erlangen List" was placed by the decision taken by the Commission at Lisbon (Lisbon Session, 2nd Meeting, Conclusion 13)⁹ that is to say that, where any subsequent author published a genus having the same name as one of the genera proposed in Bohadsch's work, the later published name is not to be rejected

⁷ See *Declaration 5*. (See 1943, *Opinions and Declarations rendered by International Commission on Zoological Nomenclature* 1: 31-40.)

⁸ See footnote 1.

⁹ For the text of this Conclusion, see 1943, *Bull. zool. Nomencl.* 1: 13-14.

8. No communication of any kind objecting to the suspension of the rules for the purpose of suppressing Bohadsch's *De quibusdam Animalibus* was received by the Commission within the prescribed period of twelve months following the issue of the advertisement required under the Plenary Powers Resolution. That period expired on 31st July 1937. Accordingly, on 30th November 1937, Commissioner Hemming, Secretary to the Commission, acting in virtue of the power conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot in this case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

9. The decision taken by the Commission in the present case is :—

under suspension of the rules to suppress Bohadsch (Joannes Baptista), 1761, *De quibusdam Animalibus marinis*, and the German translation thereof published by Leske (Nathaniel Gottfried) in 1776.

10. The following twelve (12) Commissioners voted in favour of the present *Opinion* :—

do Amaral; Calman; Chapman; Esaki; Fantham; Hemming; Jordan; Peters; Richter; Silvestri; Stiles; and Stone.

11. No Commissioner voted against the present *Opinion*.

12. The following six (6) Commissioners did not vote on the present *Opinion* :—

Arndt; Bolivar y Pieltain; Cabrera; von Hankó; Pellegrin; and Stejneger.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT OPINION.

WHEREAS the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913, adopted a Resolution conferring upon the International Commission on Zoological Nomenclature, acting for the International Congress of Zoology, Plenary Power to suspend the rules as applied to any given case,

¹⁰ See *Opinion* 145 (See 1943, *Opinions and Declarations rendered by International Commission on Zoological Nomenclature* 2 : 99-108).

where, in the judgment of the Commission, the strict application of the said rules would clearly result in greater confusion than uniformity, provided that not less than one year's notice of the possible suspension of the rules as applied to the said case should be given in two or more of five journals named in the said Resolution and provided that the vote in the Commission was unanimously in favour of the proposed suspension of the rules; and

WHEREAS the suspension of the rules is required to give valid force to the provisions of the present *Opinion*; and

WHEREAS not less than one year's notice of the possible suspension of the rules as applied to the present case has been given to two or more of the journals referred to in the Resolution adopted by the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913; and

WHEREAS the vote in the Commission on the present case was unanimously in favour of the issue of an *Opinion* in the terms of the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Eighty Five (*Opinion* 185) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this seventeenth day of July, Nineteen Hundred and Forty Four, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

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Bulletin of Zoological Nomenclature.

This journal has been established by the International Commission as their Official Organ in order to provide a medium for the publication of :—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision ;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above ; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

The *Bulletin* was established in 1943, in which year three Parts were published. Part 4 has been published in 1944 and Parts 5 and 6 are in the press.

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Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-4 (containing *Opinions* 182-185) have now been published. Further Parts will be published as soon as possible.

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The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £773 13s. 7d. were received up to 30th June 1944. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

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RENDERED BY THE INTER-
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ZOOLOGICAL NOMENCLATURE**

Edited by

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

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OPINION 186

Suspension of the rules for *Squilla* Fabricius
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OPINION 186.

SUSPENSION OF THE RULES FOR *SQUILLA* FABRICIUS (J. C.), 1787 (CLASS CRUSTACEA, ORDER STOMATOPODA).

SUMMARY.—The following action is hereby taken under suspension of the rules : (i) the name *Squilla* Gronovius, 1760, and the name *Squilla* as used by O. F. Müller, 1776, by Scopoli, 1777, by Otto Fabricius 1780, and by any other author prior to J. C. Fabricius, 1787, are suppressed ; (ii) the name *Squilla* Fabricius (J. C.), 1787, is validated ; (iii) all type designations for *Squilla* Fabricius, 1787, made prior to the date of this *Opinion*, are set aside ; and (iv) *Cancer mantis* Linnaeus, 1758, is designated as the type of *Squilla* Fabricius, 1787 (Class Crustacea, Order Stomatopoda). The name *Squilla* Fabricius, 1787, with the type indicated above, is hereby added to the *Official List of Generic Names in Zoology* as Name No. 619.

I.—THE STATEMENT OF THE CASE.

This case was submitted to the International Commission by Dr. Robert P. Bigelow, Professor of Zoology and Parasitology, Massachusetts Institute of Technology, Cambridge, Mass., in the following statement dated 13th August 1931:—

A PETITION FOR THE SUSPENSION OF THE RULES IN FAVOR OF THE GENUS *SQUILLA* J. C. FABRICIUS, 1781 OR 1787

The genus *Squilla* J. C. Fabricius or *Chloridella* Miers is not only, as stated by Kemp, 1913, the oldest established, but also the most numerous in species and the most typical genus of the Crustacean order Stomatopoda. As established by J. C. Fabricius in 1787, it contained exclusively all the Stomatopoda then known, including as the first species the common European form that had been described in 1778 by de Geer under the name *Squilla mantis*.

The genus *Squilla* of Fabricius was accepted by Lamarck in 1801 and by Latreille in 1802, and this name for the typical genus of Stomatopoda had remained unquestioned for more than a century when in 1899, Miss M. J. Rathbun (*J. Inst. Jamaica* 2 : 628 footnote) called attention to the use of this name by O. F. Müller (1776) for an amphipod. Later, Sherborn (1902 : 926) cited L. T. Gronov (1760) as the first to apply the name to a genus of animals after 1st January 1758. Gronov described a genus that he called *Squilla* and one species with a figure, which is identified by Stebbing (1888 : 19 and 1910 : 405) as an amphipod, *Proto ventricosa* (O. F. Müller).

Early Use of the Name

The use of the name *Squilla* may be traced back to the Greek of Aristotle and to the Latin of Pliny (A.D. 79). From early times the name *Squilla*

or its equivalent, *la squille*, etc., seems to have been applied by fishermen to various shrimp-like animals.

The first modern use of the name is by Bellon, 1553, "*Squilla fluviatilis parva*," the gamarella of the Romans, not an amphipod (Stebbing 1888 : 2). The general usage of the time is reflected by Rondelet (1558) who describes and figures under the generic name *Squilla* several species of decapod shrimps and prawns, and also (: 396-398) the mantis-shrimp, "*la quille nomené mantis*," with a good figure of the form now known as *S. mantis* de Geer.

In his use of the name for decapod shrimps and prawns, Rondelet was followed by Mattioli (1565), Sachs (1665), Rösel van Rosenhof (1746 : 310-313 pl. 63), Baster (1762), and others. Linnaeus recognized this usage by the application of *squilla* as a trivial name for the edible prawn, *Cancer squilla* (Linn., 1735, and 1758), later called *Palaemon squilla* Fabr. The mantis shrimp he named (1758) *Cancer mantis*.

Squilla, a genus of Amphipoda

Of the two species included in Rösel van Rosenhof's genus *Squilla*, one, his *S. fluviatilis*, is an amphipod, probably the first use of the name for a member of this group. Seba (1761) not binomial (Sherborn, 1902 : xlix) made of *Squilla* a comprehensive group including two amphipods.

In 1760 Gronov (: 38) gave a definition of the genus *Squilla*, the first application after 1757 (Sherborn, 1902 : 926), and he cited one species (: 39) "*Squilla acaudata pedibus quatuordecim*," evidently non-binomial. According to Stebbing (1888 : 19) the accompanying figures (figs. 8, 9, 10) represent very well the small caprellid amphipod later known as *Proto ventricosa* (O. F. Müller). In 1764 Gronov again described the genus, and mentioned two species, different from the first, apparently amphipods. But according to Stebbing (*loc. cit* : 27) his descriptions are so indefinite and his references so inconsistent that it is impossible to identify them.

The genus of Gronov was adopted by O. F. Müller (1776 and 1788), Scopoli (1777), and Otto Fabricius (1780). Müller (1776) gives two species (accepted by Sherborn, 1902 : 548, 1035)—No. "2359 *Squilla lobata pallida pellucida*," . . . (syn.) "*Canc. linearis* . . . Linné," and No. "2360 *Squilla ventricosa rubra depressa*," with reference to Gronov's first paper. Later Müller (1788 : 20, 21; "unquestionably binomial," M. J. R.) gives the same two species with figures, but in reversed order, and renames No. 2350 *Squilla quadrilobata*. Scopoli (1777) gives a list of the genera of Gronov with definitions, but without species. O. Fabricius (1780) merely mentions *S. lobata* Müller.

Squilla, a genus of Stomatopoda

Following Rondelet (1558) the name *Squilla* was applied by several authors to collective groups that included stomatopods. Among the first of these was Rumphius (1705), who applied the name to four species of Crustacea, which he described and figured—two under *Squilla arenaria* are stomatopods, and two under *Squilla lata* are decapods of the family SCYLLARIDAE.

Seba, whose great atlas furnished a wealth of illustrations for his contemporaries, is utterly confused in his nomenclature. Under *Squilla* he includes in vol. 3 (1761) three stomatopods, five decapods, and two amphipods.

De Geer (1778), probably under the influence of Gronov, gives a definition of *Squilla* that includes three isopods, two amphipods, and *Squilla mantis* (name accepted by Sherborn (: 583); = *Cancer mantis* Linn.).

• The name *Squilla* was restricted for the first time to stomatopods when J. C. Fabricius (1781) used the generic name *Squilla* exclusively for four species, three of which he had previously (1775) classed under *Astacus*.

The first on the list is *Squilla mantis* de Geer. Each species is defined with references, but there is no definition of the genus. The definition of the genus is supplied by Fabricius in 1787 and is followed by the same list of species with the addition of a fifth. For his first (type) species Fabricius has adopted the name used by de Geer (1778), who in turn cites Aldrovandi (ca. 1602) and Rondelet (1558) as his authority. So, perhaps, it may be assumed that Fabricius was following the law of priority as understood in his time.

The acceptance of the genus Squilla of J. C. Fabricius

The genus *Squilla* of J. C. Fabricius was accepted by Lamarck (1801 : 160), and he gave a new generic name, *Caprella* (Sherborn, 1922 : 1068), instead of *Squilla*, to the two species of amphipods placed under the latter name by O. F. Müller (1788). The second of these was afterwards separated from *Caprella* by Leach (1814) to become the type of his genus *Proto*.

Latreille's (1802-1803) acceptance of the revision of Fabricius was enthusiastic. After discussing the previous usage, he says (1803 : 271, freely translated)—“ De Geer includes in the squilles not only the Crustacea to which we restrict the name, but also the crevettes and our family of asellotes. Fabricius has finally removed this confusion, and the genus of the squilles is now circumscribed in convenient limits, being perfectly natural.” He then goes on to quote with approval de Geer's unusually exact description of the most common species, *Squilla mantis*. Then follows a list with short descriptions of all the species mentioned in the latest work of Fabricius (1798), changing the order to place *S. mantis* first, as Fabricius had it originally (1781 and 1787).

Of the nine species included in the genus by Fabricius in 1798, the first, *S. maculata*, has been placed in the genus *Lysiosquilla* Dana, 1852; the second and third remain in the genus *Squilla*, viz.: *S. mantis* (type: Latreille, 1810) and *S. raphidea*; the sixth *S. scyllarus*, and the eighth, *S. chiragra*, were placed by Latreille (1825) in his new genus *Gonodactylus*; the seventh, *S. ciliata*, was added under another name by Dana (1852) to his genus *Pseudosquilla*; while the remaining species, *S. phalangium*, *S. ichneumon*, and *S. vitrea* (a larval form?) are now indeterminate (Kemp, 1913 : 205).

In the meantime, other species have been added to the genus *Squilla*, of which *S. mantis* remains the type. In 1841 Eydoux and Souleyet proposed the generic name *Chlorida* for several species with very small eyes. Finding this name preoccupied, Miers (1880) changed it to *Chloridella*. But Brooks found (1888) that these forms are linked to the typical species of *Squilla* by intermediate types.

In his monograph of the Stomatopoda, Kemp (1913 : 3) gives a list of fifty-four known species and varieties of *Squilla*. In spite of the addition of many new species, the limiting characteristics of this genus have remained practically unchanged since the publication of the Challenger Report (Brooks, 1888); and in nearly all important monographs and other papers from Fabricius, 1793, to the present time, the name *Squilla* has represented a genus of Stomatopods that contains the common European mantis shrimp, the type species; while the various unrelated eighteenth century species associated with this name had been discarded into the synonymy or placed in other genera before the second year of the nineteenth century.

Since that date, so far as your petitioner is aware, the name *Squilla* had represented a genus of Stomatopoda with absolute uniformity, until Miss Rathbun in 1899¹ and again in 1902 published the statement that the name is preoccupied and should be replaced by the next available name,

¹ For Dr. Rathbun's attitude towards the present application, see paragraph 2 below.

Chloridella Miers, 1880. This was disputed by Stebbing (1910), and the older name has continued to be used by the great majority of zoologists, notably Stanley Kemp in the two most important monographs (1913 and 1915) published since Brooks. Among fifteen papers that have dealt with this genus after 1902, there are four only in which the name *Chloridella* has been substituted for *Squilla* Fabr., viz.: J. G. de Man (1907), M. J. Rathbun (1910), H. Lüderwaldt (1919) and W. L. Schmitt (1924).

If the judgment of Miss Rathbun be accepted, *Squilla* Gronov takes the place of *Caprella* Lamarck, or perhaps of *Proto* Leach, while *Squilla* Fabricius is suppressed in favor of *Chloridella* Miers. In other words, two genera of century-long standing change names, and any student reading in the literature of the nineteenth century must remember that *Squilla* then is not the same as *Squilla* now, but must be looked for under another name. What could be more confusing?

Moreover, it is still open to question whether *Squilla* Gronov will hold under a strict application of the Rules. Gronov (1760) and O. F. Müller (1776) are not strictly binomial. O. F. Müller does not become unquestionably binomial until 1788, and the use of *Squilla* for Stomatopoda was begun by J. C. Fabricius in 1781 and 1787. That leaves, as a basis for the acceptance of the genus *Squilla* of Gronov, only the work of Scopoli (1777), who gives merely a list of the genera of Gronov, with definitions but no mention of species.

In this case a strict application of the *Règles* serves no useful purpose whatever, and in fact only introduces confusion where for a hundred years perfect uniformity has prevailed. It involves the names of at least two genera that are typical of certain well-defined groups of Crustacea and that under these names have been well-known to zoologists for a century. Familiar names are now to be substituted one for the other, and one of them perhaps suppressed as a *nomen nudum* in favor of an unfamiliar name resurrected from the synonymy.

From the facts set forth above, many of which have been supplied very kindly by Miss Rathbun in personal communications, it seems evident that the substitution of the generic name *Chloridella* Miers, 1880, for *Squilla* Fabricius, 1787, is a case "where the strict application of the *Règles* will clearly result in greater confusion than uniformity."

Therefore the undersigned respectfully prays that the Commission will suspend the *Règles* and place *Squilla* Fabricius, 1781 or 1787, in the *Official List of Generic Names in Zoology*.

R. P. Bigelow.

Woods Hole, Mass.
August 13, 1931.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. Immediately upon receipt of the foregoing communication, Dr. C. W. Stiles, Secretary to the Commission, invited the opinion of Dr. Mary Rathbun as the author who had first pointed out that *Squilla* Fabricius was preoccupied. Dr. Rathbun replied (25th August 1931): "In view of the fact that exceptions to the rules are permitted, I believe that *Squilla* should be restored."

3. In December 1931, the case submitted by Professor Bigelow, together with the text of the supporting letter received from Dr. Rathbun, was communicated to each member of the Commission

for observations. In February 1935 Dr. Stiles suggested that this case, on which only a small number of votes had by that time been received, should be settled by the Commission at their Session due to be held at Lisbon in September of that year. At the same time Dr. Stiles reported that the late Commissioner F. A. Bather had at his request made a special study of the points involved in this case and shortly before his death had submitted the following report: "This is pre-eminently a case in which adherence to the rules leads to confusion. I support Professor Bigelow and Miss Rathbun." At the same time Dr. Stiles recommended that the Commission should grant the relief sought in the present petition and drew attention as follows to the similarity between this case and that dealt with by the Commission in *Opinion* 89: "On an earlier occasion (*Opinion* 89) the Commission suspended the rules in the case of Gronow, 1763, because the application of the rules to the case involved would produce greater confusion than uniformity. The present case involves a suspension of Gronow, 1760, on similar grounds."

4. Owing to the exceptionally heavy agenda and the short time available for meetings at Lisbon, the Commission were unable to deal with this case during their Lisbon Session and it was accordingly arranged that a decision thereon should be taken by a postal vote.

5. In May 1936 this case was duly advertised in the manner prescribed in proviso (a) to Article 1 of the Plenary Powers Resolution adopted by the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913.² No communication of any kind objecting to the suspension of the rules in favour of *Squilla* Fabricius was received by the Commission within the period of one year prescribed by the said Resolution.

6. Owing to an insufficiency in the number of votes received, this case was still open when on 10th June 1938 Commissioner Stiles, who had by that time vacated the Office of Secretary to the Commission, notified his successor that he had received a letter (dated 15th February 1938) from Dr. Waldo L. Schmitt, U.S. National Museum, Washington, expressing apprehension at the prospect of the suspension of the rules in favour of *Squilla* Fabricius and at the consequential displacement of the name *Chloridella*

² For the text of the Plenary Powers Resolution, see *Declaration* 5 (1943, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1: 31-40).

Miers, the use of this latter name being, in his (Dr. Schmitt's) judgment, "fully justified under the rules." Dr. Stiles added that he had recently had a conference with Dr. Schmitt on this subject and had asked him "to reduce his views to paper and to send the letter to the Secretary to the Commission."

7. In order to afford Dr. Schmitt ample opportunity to place his views before the Commission, notwithstanding the fact that the prescribed period within which, under the Plenary Powers Resolution, objection might be lodged had already expired, the Secretary to the Commission decided that the case should remain open for a further period of six months, *i.e.* until 10th December 1938. No communication was, however, received on this subject during the additional period so made available.

8. In recording his vote in favour of the proposal submitted by Professor Bigelow, Commissioner Francis Hemming, as Secretary to the Commission, entered the following note in the record relating to this case:—

In dealing with XVIIIth century names, it is extremely difficult to make sure that, as regards any given name, every relevant reference in the literature has been detected. As regards the procedure to be adopted in recording the decision of the Commission in this case, it would be well therefore to follow the precedent set by the Commission at Lisbon in 1935 when dealing with certain similar cases in the Order Hymenoptera (Class Insecta) submitted by Professor James Chester Bradley (Lisbon Session, 3rd Meeting, Conclusion 2),³ that is to say, to use their plenary powers first (a) to suppress all uses of the word *Squilla* as a generic name prior to its publication by J. C. Fabricius for a genus of the Order Stomatopoda (Class Crustacea) and (b) to set aside all type designations for *Squilla* Fabricius made prior to the date of the present *Opinion*. Having done this, the Commission can use their plenary powers (i) to validate *Squilla* Fabricius and (ii) to designate *Cancer mantis* Linnaeus, 1758, as the type of that genus. The name *Squilla* Fabricius, so validated and with the above species as its type, can then be added to the *Official List of Generic Names in Zoology* as proposed.

As regards the question of the date as from which *Squilla* Fabricius should rank, there is no doubt that this should be 1787, *Mantissa Ins.* 1: 333, when Fabricius first published this name in conditions which satisfy proviso (a) to Article 25 of the International Code. His publication of the name *Squilla* in 1781, *Spec. Ins.* 1: 514 is invalid, since on that occasion he neither gave a description or a definition of this genus nor did he give an "indication" for it within the meaning of that expression as defined in *Opinion 1* (see 1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1: 73-86). All that he did was to place in this genus four species, none of which he specified as the type.

Fortunately in the present case, the Commission are asked to suppress certain early uses of the name *Squilla* and not to express an opinion whether those early uses are valid under the Code. If the reverse had been the case, it would not have been possible to give more than a provisional decision, since the status of some of the works concerned depends on the

³ For the text of the Conclusion here referred to, see 1943, *Bull. zool. Nomencl.* 1: 27-30.

interpretation to be given to the expression "binary nomenclature" in proviso (b) to Article 25 of the International Code. That question is at present *sub judice*, the Twelfth International Congress of Zoology having requested the International Commission on Zoological Nomenclature to furnish a report thereon at the next meeting of the Congress.⁴

9. The position as regards the present case was reviewed on 10th December 1938, the date to which (as explained in paragraph 7 above) had been extended the period within which grounds of objection against the proposed action could be lodged with the Commission. By that date no grounds of objection had been lodged by any author; further, the number of votes cast by Commissioners in favour of that action already exceeded the minimum prescribed by paragraph (1) of Article 6 of the By-Laws of the Commission as the number required to secure the adoption of an *Opinion* by the Commission. Accordingly on 11th December 1938, the Secretary to the Commission, acting in virtue of the power conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot in this case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

10. The decision taken by the Commission in the present case is:—

(a) under suspension of the rules:—

- (i) to suppress the name *Squilla* Gronovius, 1760, and the name *Squilla* as used by O. F. Müller, 1776, by Scopoli, 1777, by Otto Fabricius, 1780 and by any other author prior to J. C. Fabricius, 1787;
- (ii) to validate *Squilla* Fabricius (J. C.), 1787, *Mantissa Ins.* 1 : 333;
- (iii) to set aside all type designations for *Squilla* Fabricius, 1787 made prior to the date of the present *Opinion*;
- (iv) to designate *Cancer mantis* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 633 as the type of *Squilla* Fabricius, 1787;

(b) to add the name *Squilla* Fabricius, 1787 (validated as in (a) (ii) above), and with the type specified in (a) (iv) above, to the *Official List of Generic Names in Zoology*.

11. The following twelve (12) Commissioners voted in favour of the present *Opinion*:—

⁴ This invitation was accepted by the International Commission at their meeting held on Wednesday, 18th September 1935 (Lisbon Session, 5th Meeting, Conclusion 3, for the text of which see 1943, *Bull. zool. Nomencl.* 1 : 45) and this acceptance was recorded by the Commission in paragraph 14 of the report which they submitted to the Twelfth International Congress of Zoology at the final Concilium Plenum held at Lisbon on 21st September 1935 (see 1943, *Bull. zool. Nomencl.* 1 : 55). A further discussion of this subject will be found in paragraph 16 (d) and (e) of *Opinion* 160, where it arises in connection with Scopoli, 1777, *Introd. Hist. nat.* (see 1945, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 2 : 301-302).

Commissioners :—Apstein; Bather; Calman; Fantham; Hemming; Jordan; Peters; Richter; Silvestri; Stephenson; Stiles; and Stone.

12. No Commissioner voted against the present *Opinion*.

13. The following six (6) Commissioners did not vote on the present *Opinion* :—

Commissioners :—Bolívar y Pieltain; Cabrera; Chapman; Esaki; Pellegrin; and Stejneger.

14. In addition, Commissioners do Amaral and von Hankó, who, near the close of the voting on this case, were elected members of the Commission in succession respectively to Commissioners A. Handlirsch (deceased) and A. Horváth (resigned), did not take part in its consideration.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913, adopted a Resolution conferring upon the International Commission on Zoological Nomenclature, plenary powers to suspend the rules as applied to any given case, where, in the judgment of the Commission, the strict application of the rules would clearly result in greater confusion than uniformity, provided that not less than one year's notice of the possible suspension of the rules as applied to the said case should be given in two or more of five journals named in the said Resolution, and provided that the vote in the Commission was unanimously in favour of the proposed suspension of the rules; and

WHEREAS the suspension of the rules is required to give valid force to the provisions of the present *Opinion* as set out in the summary thereof; and

WHEREAS not less than one year's notice of the possible suspension of the rules as applied to the present case has been given to two or more of the journals referred to in the Resolution adopted by the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913; and

WHEREAS the vote in the Commission on the present case was unanimously in favour of the issue of an *Opinion* in the terms of the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Eighty Six (*Opinion* 186) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this fifteenth day of August, Nineteen Hundred and Forty Four, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

THE PUBLICATIONS OF THE COMMISSION.

(obtainable at the Publications Office of the Commission at 41, Queen's Gate, London, S.W.7.)

Bulletin of Zoological Nomenclature.

This journal has been established by the International Commission as their Official Organ in order to provide a medium for the publication of:—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

The *Bulletin* was established in 1943, in which year three Parts were published. Part 4 was published in 1944. Parts 5 and 6 are in the press.

Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature.

The above work is being published in three volumes concurrently, namely:—

Volume 1. This volume will contain *Declarations* 1-9 (which have never previously been published) and *Opinions* 1-133 (the original issue of which is now out of print). Parts 1-20 (containing *Declarations* 1-9 and *Opinions* 1-11) have now been published. Further parts will be published shortly.

Volume 2. This volume will be issued in 52 Parts, comprising all the decisions taken by the International Commission at their meeting at Lisbon in 1935, namely *Declarations* 10-12 (with Roman pagination) and *Opinions* 134-181 (with Arabic pagination). Part 52 will contain the index and title page of the volume. Parts 1-30, containing *Declarations* 10-12 and *Opinions* 134-160, have now been published. Further Parts will be published shortly.

Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-5 (containing *Opinions* 182-186) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £819 8s. 7d. were received up to 31st December 1944. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

Contributions should be sent to the International Commission at their Publications Office, 41, Queen's Gate, London, S.W. 7, and made payable to the "International Commission on Zoological Nomenclature or Order" and crossed "Account payee. Coutts & Co."

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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 3. Part 6. Pp. 65-76.

OPINION 187

On the type of the genus *Hypselopus* Burmeister, 1835 (Class Insecta, Order Hemiptera)

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Ref

OPINION 187.

ON THE TYPE OF THE GENUS *HYPSELOPUS* BURMEISTER, 1835 (CLASS INSECTA, ORDER HEMIPTERA).

SUMMARY.—*Hypselopus gigas* Burmeister, 1835, is hereby designated as the type of *Hypselopus* Burmeister, 1835 (Class Insecta, Order Hemiptera) and the generic name *Hypselopus* Burmeister, so defined, is hereby added to the *Official List of Generic Names in Zoology* as Name No. 620.

I.—THE STATEMENT OF THE CASE.

This case was submitted to the International Commission on Zoological Nomenclature by Dr. H. C. Blöte of the Rijksmuseum van Natuurlijke Historie, Leiden, in the following statement received under cover of a letter dated 25th February 1935:—

In 1835 was described a genus *Hypselopus* by Burmeister in his *Handbuch der Entomologie* 2^{er} Bd., 1^o Abt. pag. 328, including two species: *H. gigas* n. sp. and *H. spinosus* "Kl." (in manuskr.).¹

In 1843 was described the genus *Meloza* by Amyot & Serville in their *Histoire Naturelle des Insectes Hémiptères*, pag. 221, including their species *M. villosipes*. The description of the genus, however, makes it possible to include *H. gigas* Burm., but not *H. spinosus* Burm.

In 1865 was described the genus *Nariscus* by Stål in his *Hemiptera Africana* 2 pag. 8 & 100, including *Hypselopus cinctiventris* Germ. In this genus *H. spinosus* Burm. can be included, *H. gigas* Burm. not.

In 1873 Stål restricts *H. gigas* Burm. to *Hypselopus*, brings *H. spinosus* Burm. to his genus *Nariscus*, and considers *Meloza* a subgenus of *Hypselopus* (*Enumeratio Hemipterorum* 3 pag. 95–96).

In 1913 Bergroth (*Supplementum Catalogi Heteropterorum Bruxellensis* 2) (*Mémoires de la Société entomologique de Belgique* 22) restricts *Hypselopus* to *H. spinosus* Burm., considers *Nariscus* Stål synonymous with *Hypselopus* and uses the name *Meloza* Amyot & Serville for *gigas* Burm., *villosipes* Amyot & Serville and a number of other species hitherto assigned to *Hypselopus*.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. The foregoing statement was circulated for consideration to the members of the International Commission in July 1935. At

¹ Volume 2 of Burmeister's *Handbuch der Entomologie* is continuously paged throughout. It is therefore misleading to insert such an expression as "1 Abt." after the volume number. If in a given case there is some special reason which makes it desirable that the Part Number should be indicated, that number should be placed within round brackets and cited immediately after the volume number. Both the volume number and the number of the Part should be cited in Arabic numerals.

the same time Dr. Stiles suggested that this case should be considered by the Commission at their meeting due to be held at Lisbon in September of that year.

3. In July 1935 the following comment on this case was received from Commissioner Rudolf Richter :—

Über die nomenklatorisch richtige Anwendung des Namens *Hypselopus* Burmeister, 1835, entscheidet lediglich sein Genotyp. Ist ein Genotyp von *Hypselopus* noch nicht bestimmt, so wäre ein solcher unter den beiden Arten, *gigas* und *spinosus* auszuwählen. Nach Art. 30(III)(k) wäre der Art *gigas* als Genotyp von *Hypselopus* Burmeister, 1835, der Vorzug zu geben.

4. It was not found possible for the Commission to deal with this case at their Session held at Lisbon in September 1935 and it was accordingly arranged that a decision on this case should be taken by a postal vote.

5. In June 1936, Dr. Stiles, as Acting Secretary to the Commission, notified the Commission that he had examined at Washington the literature involved in this case and recommended that " unless arguments not thus far presented to the Commission indicate some other action " *Hypselopus gigas* Burmeister, 1835, should be designated under Article 30 of the International Code as the type of *Hypselopus* Burmeister, 1835. In making this recommendation, Dr. Stiles made the following observations on the literature involved :—

According to Burmeister (1835, vol. 2, p. 329) *Hypselopus* n.g. contained at that date eight species from Africa, but he mentions only two, namely *H. gigas* n.sp. and *H. spinosus* Kl. Only these two species come into consideration in selecting the type.

Amyot & Serville (1843, p. 221) do not refer either to *H. gigas* or to *H. spinosus* under *Meloza* (monotype: *M. villosipes*).

Stål (1865, vol. 2, pp. 98–100) accepts *Hypselopus* (with *Meloza* as synonym) and (p. 99) quotes *H. gigas*. On p. 101 he quotes *H. spinosus* Sign. in Thoms., *Arch. Ent.*, 1858, as synonym of *Nariscus cinctiventris* Germ., but he does not seem to quote *H. spinosus* Kl.

Stål (1873, Part 3) definitely transfers *H. spinosus* Burm., 1835, to *Nariscus* and (p. 96) he retains *H. gigas* Burm. in *Hypselopus*.

Lethierry & Severin, 1894, follow the procedure of Stål, 1873.

Bergroth (1913, Part 2, p. 162) considers *Nariscus* a synonym of *Hypselopus* and cites " (*spinosus* Burm., Nubia)."

6. In his letter of 25th February 1935, covering the statement of the case quoted in paragraph 1 above, Dr. Blöte had observed : " The main question seems to me to be whether the description and diagnosis [of *Meloza*] by Amyot & Serville can be regarded as constituting a choice of a type species [for *Hypselopus* Burmeister]. " On this question, which raises the interpretation to

be given to *Opinion* 6 of the Commission, Dr. Stiles made the following observations :—

In *Opinion* 6 the Commission laid down the following principle : “ When a later author divides the genus ‘ *A*,’ species ‘ *A—b—*’ and ‘ *A—c—*,’ leaving genus ‘ *A* ’ only species ‘ *A—b—*’ and genus ‘ *C* ’ monotypic, with species ‘ *C—c—*,’ the second author is to be construed as having fixed the type of genus ‘ *A*.’ ” (See Article 30).

The question arises whether *Opinion* 6 should be applied to Stâl’s action of 1873, thus establishing *H. gigas* as type by removing *H. spinosus* from the genus. It will be noticed that in *Opinion* 6 the second species, namely “ *A—c—*, ” was definitely made the monotypic genotype of the genus “ *C* ” and in the present instance the species *H. spinosus* was reclassified in another genus.

From a nomenclatorial point of view, therefore, the two cases are not identical.

Opinion 6 would naturally cover a much smaller number of cases (since it refers to definite type designation of a new genus) than would be covered by the enormous number of instances in which species have simply been reclassified in other genera.

7. Dr. Stiles’s proposal regarding the designation of *Hypselopus gigas* Burmeister as the type of *Hypselopus* Burmeister secured the general concurrence of the members of the Commission (see paragraph 13 below). On the question of the applicability of *Opinion* 6 to the present case, the following observations were received from Commissioners :—

(a) *Observations by Commissioner Leonhard Stejneger*

I agree with the conclusion that *Hypselopus gigas* be designated the type, but would leave out of the text of the *Opinion* any reference to *Opinion* 6.

From the statement submitted it is clear that the present case is entirely different from the one covered by *Opinion* 6. That *Opinion* must be construed very strictly as applying only to an exceptional case which was not covered explicitly in Article 30 of the Code. As such, *Opinion* 6 must not be extended.

The present case is apparently one of the many which await, and are solvable by, type designation, since no designation has previously been made as far as is known. The Commission is plainly competent to make such a designation in an *Opinion*, hence my affirmative vote.

(b) *Observations by Commissioner Francis Hemming*

I agree that the correct course in the present case is for the Commission to proceed in accordance with recommendation (k) in Article 30 of the *Règles Internationales* and therefore itself to designate *Hypselopus gigas* Burmeister, 1835, as the type of *Hypselopus* Burmeister, 1835.

2. On the more general question raised, it must be noted that the wording of *Opinion* 6 is very precise and covers only a very limited class of case. The position of this class of case was not clearly defined under Article 30 of the *Règles* and it was for this reason that a declaratory *Opinion* was given by the Commission. In order to fall within the scope of *Opinion* 6, it is necessary for a given case to present the following features :—

(i) a genus “ *A*, ” containing two species (species “ *A—b—* ” and “ *A—c—* ”) must have been established without a type;

- (ii) at some time *prior* to the selection of either of these species as the type under rule (g) in Article 30 of the *Règles*, some author must have made one of the two originally-included species (say species "A—c—") the type of another genus "C" either :—
- (a) by monotypy (as in the example cited in *Opinion 6*); or
 - (b) by designating that species as the type of genus "C" ("type by original designation") under rule (a) of Article 30 of the *Règles*.

3. Prior to the issue of *Opinion 6*, it was not clear whether under Article 30 of the *Règles* any change in the status of genus "A" resulted from the designation of one of its two originally-included species as the type of genus "C." The two possible interpretations of Article 30 in this regard were the following :—

- (i) it was possible to argue that the selection of species "A—c—" as the type of the genus "C" had no effect whatever upon the status of genus "A," since that genus still contained two originally-included species (namely "A—b—" and "A—c—"), neither of which had been selected as the type of genus "A" under rule (g) of Article 30 of the *Règles*; added force was lent to this argument by the fact that the *Règles* expressly provide that the expression "select the type" is to be "rigidly construed";
- (ii) it was possible on the other hand to argue that, when the later author selected as the type of genus "C" one of the two species (species "A—c—") originally included in genus "A," he could properly be deemed at the same time to have designated as the type of genus "A" the only remaining species (species "A—b—") originally placed in that genus.

4. Confronted with this problem, the Commission decided in favour of the second of the two possible alternatives and accordingly rendered *Opinion 6* which interpreted Article 30 of the *Règles* in this sense.

5. It will be seen therefore that *Opinion 6* has no relevance whatever in considering a case (such as *Hypselopus* Burmeister, 1835) where a genus was published with two species, of which neither was specified as the type, where no later author selected either of these species as the type of some other genus and where all that happened was that a later author reclassified one of the two originally-included species in some other genus.

8. At the same time Commissioner Hemming added the following explanatory note on the status of the name *Hypselopus spinosus* at the time of its first publication by Burmeister in 1835 :—

In presenting the case of *Hypselopus* Burmeister, 1835, to the Commission, Dr. Blöte stated it contained two originally-included species, of which he cited the second as "*H. spinosus* 'Kl.' (in manuskri.)." By anyone who had not had an opportunity of studying the original work of Burmeister's, this might be taken as implying that Burmeister mentioned for this genus two species by name, that for the first (*H. gigas*), a new species of his own, he gave a description, but that the second (*H. spinosus*) was only a manuscript name of the author "Kl.," for which Burmeister gave no description. If this had been the case, no problem would have arisen in the case of *Hypselopus* Burmeister, since *H. gigas* Burmeister would have been the only species included in the genus under a name which complied with Article 25 of the *Règles* and the species *H. gigas* Burmeister would have been the type of *Hypselopus* Burmeister by monotypy.

The above is not however the position. What Burmeister really did—and this is no doubt what Dr. Blöte intended to convey—was to specify for this genus two species, *H. gigas* and *H. spinosus*, for each of which he published a description. The first of these species, *H. gigas*, Burmeister indicated as a new species of his own; after the name of the second species, he added the abbreviation “Kl.”, which, no doubt, stands for Klug, thereby indicating that the name *spinosus* had first been proposed in manuscript not by himself but by Klug.

9. Before there had been time for any votes to be received on the proposal laid before the Commission by Dr. Stiles (paragraph 5 above), a letter (dated 24th June 1936) was received from Dr. Blöte drawing attention to the fact that in 1835, the year in which Burmeister had published the name *Hypselopus* for his genus belonging to the Order Hemiptera of the Class Insecta, Wiegmann had published the same name for a genus belonging to the Class Reptilia. It was possible, therefore, that the name *Hypselopus* Burmeister was an invalid homonym. The principle involved in the present case would not be affected, if this proved to be so, but clearly it was a matter which must, if possible, be cleared up before any *Opinion* was rendered, since as long as any doubt remained on this subject there could be no question of placing the name *Hypselopus* Burmeister on the *Official List of Generic Names in Zoology*.

10. It was not until July 1939 that the evidence required to resolve this doubt became available. This evidence is set out in the following note prepared by Commissioner Hemming:—

ON THE RELATIVE PRIORITY TO BE ASSIGNED TO *HYPSELOPUS* BURMEISTER, 1835 (CLASS INSECTA) AND *HYPSELOPUS* WIEGMANN, 1835 (CLASS REPTILIA)

The name *Hypselopus* was proposed by Wiegmann in 1835 (*Arch. Naturges.* 1 (2) : 289) for a genus belonging to the Class Reptilia. On page 219 of this volume there is the following note to a paper by an author named Wagner: “Erlangen, im November 1835.” As Wagner’s paper was printed before that by Wiegmann, the name *Hypselopus* Wiegmann cannot have been published before November 1835 and, if actually published in that year at all, was most probably published on some date in December.

The name *Hypselopus* Burmeister (Class Insecta) was published in vol. 2 of that author’s *Handbuch der Entomologie*. This volume is divided into two sections, which are however continuously paged. The first portion consists of 25 signatures (pp. 1–396). The name *Hypselopus* was published on the foot of page 328, the description being continued on page 329. These pages form part of signature 21. On the title page the note “versetzt 1834 und 1835” is printed in relation to the first portion of this volume, i.e. to the portion relating to the “Ordnung Rhynchota.” This is not very helpful, since the individual signatures are undated. The most that can be drawn from this evidence is the conclusion that, as *Hypselopus* was published in the 21st of 25 signatures, it was published sometime in 1835. On the whole, it is more likely that it was published in the earlier

part of the year rather than the later but the indications in favour of this conclusion are certainly not sufficient to warrant the conclusion that the name *Hypselopus* Burmeister was published before *Hypselopus* Wiegmann. Quite recently, definite evidence regarding the date of publication of the first portion of vol. 2 of Burmeister's *Handbuch* has been discovered by Mr. F. J. Griffin, Archivist to the Commission, who has found a reference in the *Proceedings of the Entomological Society of London (Proc. ent. Soc. Lond. 1835 : liii)* which shows that volume 2, part 1, pp. 1-396, of Burmeister's *Handbuch* was received by the Society's library on some date prior to 4th May 1835.

The above evidence shows that *Hypselopus* Burmeister was published in 1835 before May and that *Hypselopus* Wiegmann was published not earlier than November of the same year. *Hypselopus* Burmeister is therefore available nomenclatorially, while *Hypselopus* Wiegmann is an invalid homonym.

11. The discovery in July 1939 of the evidence set out in the preceding paragraph made it possible to review the position as regards this case and this review disclosed that a majority of the Commissioners had already signified their concurrence in the adoption of an *Opinion* in the sense proposed. Accordingly, on 6th July 1939 the Secretary to the Commission, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot in this case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

12. The decision taken by the Commission in the present case is:—

- (a) that *Hypselopus gigas* Burmeister, 1835, *Handb. Ent.* 2 (1) : 329 is hereby designated as the type of *Hypselopus* Burmeister, 1835, *Handb. Ent.* 2 (1) : 328 (Class Insecta, Order Hemiptera);
- (b) that the generic name *Hypselopus* Burmeister, 1835, defined as in (a) above, is hereby added to the *Official List of Generic Names in Zoology* as Name No. 620.

13. The following twelve (12) Commissioners voted in favour of the present *Opinion*:—

Cabrera; Calman; Chapman; Esaki; Fantham; Hemming; Jordan; Richter; Silvestri; Stejneger; Stiles; and Stone.

14. No Commissioner voted against the present *Opinion*.

15. The following four (4) Commissioners did not vote on the present *Opinion*:—

Apstein; Bolivar y Pieltain; Pellegrin; and Peters.

16. In addition, Commissioners do Amaral and von Hankó, who were elected members of the Commission near the close of the voting on this case, did not take part in its consideration.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the By-Laws of the International Commission on Zoological Nomenclature provide that, except in cases involving the suspension of the rules, an *Opinion* is to be deemed to have been adopted by the said International Commission as soon as a majority of the Members of the Commission, that is to say ten (10) Members of the said Commission, have recorded their votes in favour thereof, provided that, where any proposed *Opinion* involves a reversal of any former *Opinion* rendered by the Commission, such proposed *Opinion* shall obtain the concurrence of at least fourteen (14) Members of the Commission voting on the same before such *Opinion* is to be deemed to have been adopted by the Commission; and

WHEREAS the present *Opinion*, as set out in the summary thereof, neither requires, in order to be valid, the suspension of the rules, nor involves a reversal of any former *Opinion* rendered by the Commission; and

WHEREAS twelve (12) Members of the Commission have signified their concurrence in the present *Opinion*;

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Eighty Seven (*Opinion* 187) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this first day of September, Nineteen Hundred and Forty Four, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

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Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-8 (containing *Opinions* 182-189) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £969 16s. 1d. were received up to 30th June 1945. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

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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

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OPINION 188

Suppression of the name *Cobra Laurenti*, 1768,
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OPINION 188.

SUPPRESSION OF THE NAME *COBRA LAURENTI*, 1768, AND SUSPENSION OF THE RULES FOR *BITIS GRAY*, 1842 (CLASS REPTILIA, ORDER SQUAMATA).

SUMMARY.—Under suspension of the rules (i) the name *Cobra Laurenti*, 1768, is hereby suppressed; (ii) all type designations for the genus *Bitis* Gray, 1842, made prior to the date of this *Opinion* are hereby set aside; and (iii) *Vipera (Echidna) arietans* B. Merrem, 1820, is hereby designated as the type of *Bitis* Gray, 1842 (Class Reptilia, Order Squamata). The name *Bitis* Gray, 1842, so defined, is hereby added to the *Official List of Generic Names in Zoology* as Name No. 621.

I.—THE STATEMENT OF THE CASE.

The problem presented by the name *Cobra Laurenti*, 1768, was submitted to the International Commission on Zoological Nomenclature by Dr. H. W. Parker, Assistant Keeper, Department of Zoology, British Museum (Natural History) in the following statement forwarded under cover of a letter dated 30th December 1937:—

Stejneger (1936, *Copeia* 3 : 140)¹ has shown that the generic name *Cobra Laurenti*, 1768, has priority over, and should be used instead of, the name *Bitis* Gray, 1842. It is believed that, on account of the reasons set forth below, the strict application of the rules of zoological nomenclature will result in greater confusion than uniformity and it is requested that a suspension be granted under the powers conferred on the Commission by the 9th International Congress of Zoology.

The generic name *Cobra Laurenti*, 1768 (*Specimen medicum* : 103), without originally designated type, has not hitherto been used in zoological nomenclature; Stejneger (1936, *loc. cit.*) has shown that it should be used for the African viperine genus usually known as *Bitis* Gray, 1842.

But the word "Cobra" derived from the Latin "coluber," through the Portuguese, has acquired a very different meaning, never being applied to viperine snakes and in some languages, at least, being applied to a restricted group of colubrine snakes:—

- (a) In Portuguese the word still means "snake" and do Amaral (1926, *Bol. Mus. nac. Rio de Janeiro* 2 (2) : 4) lists 15 different snakes whose common names are compounded from Cobra, e.g. Cobra-coral, Cobra-lisa, Cobra-preta, etc. None of these snakes is a viper.

¹ For the text of the note published by Stejneger on this subject, see paragraph 2 below.

- (b) In the English language the word has gained universal acceptance. It is defined in the *Shorter Oxford Dictionary* (1933, 1 : 332), thus :—

Cobra 1817. Short for next.

Cobra de Capello 1668 The hooded or spectacled snake (*Naja tripudians*), a venomous serpent found in India having the power of dilating the head and neck when irritated, so as to produce the resemblance of a hood.

In specialist, and especially in medical, literature the word "cobra" is almost universally used as an alternative group-name to designate the proteroglyphous colubrine snakes of the genus *Naja* Laurenti, 1768.

- (c) In French the usage is similar to that in English; the *Petit Larousse Illustré* (18th ed., 1907) gives :—

Cobra ou Cobra capello n.m. Nom vulgaire des serpents venimeux du genre *Naja*.

- (d) In German the word has not, apparently, attained to such universal usage, but is used in scientific literature in the same sense, e.g. :—

Ahl. 1930, *Tabulae biologicae* 6 Suppl. : 666 et seq. :—

Wirkung des Giftes der Cobra (*Naja tripudians*) . . .

Schaumann, 1936, *Behringwerk Mitteilungen* 7 : 35 et seq. :—

Die Gifte der beiden afrikanischen Cobra-Arten, der *Naja haje* (Kleopatra-schlange) aus Nordafrika und *Naja flava* (Kap-Cobra) aus Sudafrika . . .

- (e) In Swedish also, the usage is similar to that in German, e.g. :—

Cyren, 1934 (*Ormar i Fantasi och Verklighet*, Stockholm : 193 et seq.) uses "Kobran" alone or in combination (e.g. Kungskobran) for snakes of the genus *Naja*.

Instances such as the foregoing could be multiplied and probably found in other languages, so that it can safely be claimed that "cobra" as a vernacular name has achieved a status so secure that the use of the same name in a generic sense for the African Puff-adders must result in confusion. The most serious consequences may well arise from any such confusion, since *Naja* (= vernacular "cobra") and *Bitis* (= *Cobra* Laurenti) are genera of highly poisonous snakes belonging to different families whose venoms are vastly different and require very different medical treatment in cases of snake-bite. It is not too much to say that the identification of a Puff-adder (*Bitis*) as a *Cobra* might easily result in the administration of the wrong antivenine with serious, if not fatal, results. Many of the antivenines are marketed under names or with instructions referring to "cobra," e.g. :—

- (1) The antivenine produced at the Kasauli Research Institute, Bombay, C.R.I. 105 is described as polyvalent for Cobra and Russell's viper.
- (2) The Pasteur Inst., Paris, produces "Sérum antivenimeux C" which "est spécifique vis-à-vis des venins de Najas (*cobra capella* principalement, et Bungarus) de l'Inde et de l'Égypte."
- (3) I.G. Farbenindustrie Akt. Ges. In *Behringwerk Mitteilungen*, 1936, 7, part 4 (Schlossberger, Bieling und Demnitz) reference is frequently made to a "Cobra-Serum" specific against *Naja haje* and *Naja flava*, whereas the antivenine specific against *Bitis* (= *Cobra* Laurenti) is known as "Puffotter Serum."

2. The following is the text of the passage relating to the genus *Cobra* Laurenti, 1768, published by Commissioner Stejneger in

1936 (*Copeia* 3 : 140) under the title "Types of the Amphibian and Reptilian Genera proposed by Laurenti in 1768" referred to in the opening sentence of the petition quoted in the preceding paragraph :—

Genus XXXII : *Cobra*, p. 103

Laurenti's genus embraces three nominal species, viz., *C. clotho*, *C. lachesis*, and *C. atropos*. The two former are based on figures by Seba (Seba II. 93 and 94.2) and are practically unidentifiable. Moreover, by most authors they have been considered probable synonyms of the third species, Linnaeus's *Coluber atropos*. This view makes the latter type by monotypy. But, in addition, Fitzinger (in 1826 *Neue Classif. Rept.* : 33) established *Cobra* for Daudin's *Vipera atropos*, which thus becomes type of the genus by subsequent designation.²

Cobra is consequently the proper name for the genus commonly known as *Bitis*.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

3. Before any action had been taken on the present case, the International Commission received a letter dated 3rd February 1938 from the Royal Society of Tropical Medicine and Hygiene (London) containing the text of a resolution relating to this case that had been unanimously adopted by the Council of that Society at their meeting held on 20th January 1938. This resolution was as follows :—

The Council of the Royal Society of Tropical Medicine and Hygiene views with alarm the proposal to substitute the generic name *Cobra* Laurenti, 1768, for *Bitis* Gray, 1842. Having regard to the established meaning of the word "cobra" in the English and other languages for proteroglyphous colubrine snakes, the use of a similar generic name for a viperine snake must result in great confusion which may have serious practical consequences in medicine. They are of the opinion that this is an occasion when the strict application of the Rules of Zoological Nomenclature will "result in greater confusion than uniformity" and that a suspension of the rules under the power conferred on the Commission by the 9th International Congress of Zoology is desirable.

4. Copies of the petition submitted in this case and of the resolution in regard thereto received from the Royal Society of Tropical Medicine and Hygiene were communicated to the Members of the Commission on 14th February 1938, together with the following note by Commissioner Karl Jordan, President of the Commission :—

² Commissioner Karl Jordan has pointed out (*in litt.*, 19th March 1937) that Fitzinger did not designate a type for *Cobra* Laurenti but for *Cobra* Fitzinger. No type was designated for *Cobra* Laurenti until the publication of the above paper by Stejneger in 1936.

Cobra Laurenti was diagnosed by the "author" (Herr Winterl, I am told) and contains three species, all described and all previously figured, *Cobra clotho*, *Cobra lachesis* and *Cobra atropos*. The first two of these are based on figures by Seba and are not identifiable with certainty, but have been generally regarded as synonyms of the third species, the *Coluber atropos* of Linnaeus, which was designated as the type of *Cobra* by Fitzinger (1826).³ The type of *Coluber atropos* Linnaeus is still in existence and is identified by Anderson (1899, *Svensk. Vet. Akad. Handl.* 24 (No. 4) : 8) as a Puff-adder.

Stejneger, therefore, is right in stating that the name *Cobra Laurenti* applies to the Puff-adders and not to the Hooded Snakes almost universally referred to in the vernacular as Cobras. The clash between the vernacular and the scientific meaning of the same name would not be of great importance, if the matter ended there; but the question of snake-serums enters the argument, and for that reason the clash between the scientific and the vernacular languages might lead to the gravest misunderstandings.

5. The comments received from Members of the International Commission disclosed an overwhelming consensus of opinion in favour of suspending the rules in order to suppress the name *Cobra Laurenti*, 1768, and to validate *Bitis* Gray, 1842, in its place :—

(i) *Comment by Commissioner W. T. Calman :*

I wish to support very strongly Mr. Parker's proposal for the suspension of the rules and suppression of the name *Cobra* as a generic name. This is emphatically one of the cases where we must consider the interests of people who are not systematic specialists.

(ii) *Comment by Commissioner Leonhard Stejneger :⁴*

I agree that the reinstatement of *Cobra Laurenti*, 1768, for *Bitis* Gray would lead to greater confusion than stability. The argument advanced in the unanimous resolution of the Royal Society of Tropical Medicine and Hygiene is convincing. Purely taxonomically, the change might not cause much confusion, but in biological science at large it certainly would. I vote for the suppression of *Cobra Laurenti*.

(iii) *Comment by Commissioner Rudolf Richter :*

Die Suspension der Regeln zu Gunsten von *Bitis* Gray, 1842, ist zweckmässig. Ich stimme dafür.

Dr. R. Mertens, als Herpetologe macht auf folgendes aufmerksam : Nicht beizupflichten ist der Ansicht von Jordan⁵ und Stejneger,⁶ dass *Cobra lachesis* Laurenti, 1768, eine mit Sicherheit nicht deutbare Art sei. Laurenti's *Cobra lachesis* ist aber auf

³ For a correction by Dr. Jordan of this statement, see footnote 2.

⁴ The present note sets out Commissioner Stejneger's views as to the action which should be taken by the Commission on this case. For his analysis of the position as it then stood under the Code, see paragraph 2 above.

⁵ The note by Commissioner Karl Jordan here referred to is quoted in paragraph 4 above.

⁶ The note by Commissioner Stejneger here referred to is quoted in paragraph 2 above.

Fig. 2, Taf. 94, von Seba's *Thesaurus* II begründet, die ganz eindeutig die gewöhnliche Puffotter darstellt. Auch das von Laurenti in der Diagnose hervorgehobene Merkmal "*Fascia nigra transvers per oculos*" spricht für diese Art. In Übereinstimmung damit hat auch Boulenger in seinen *Catalogue of Snakes* (3: 493) (1896) *Cobra lachesis* in die Synonymen-Liste der gewöhnlichen Puffotter, *Bitis arietans* Merrem, 1820, aufgenommen.

Der richtige Name für diese Schange würde also lauten—falls die Regeln zu Gunsten von *Bitis* aufgehoben werden sollten—*Bitis lachesis* Laurenti.

Hierdurch wird unsere Zustimmung für die Suspension nicht berührt.

In Übereinstimmung mit Dr. R. Mertens.

(iv) *Comment by Commissioner C. W. Stiles :*

Removed temporarily from literature, I cannot verify the premises presented. Unless the two herpetologists on the Commission can show that those premises are erroneous, I favor suspension.

When fields other than zoology are affected (as Geology, Medicine, Law, Agriculture, etc.), the Commission will do well to be very cautious about applying Priority. When human life is a possible factor—as represented in the premises—priority becomes even more serious than usual.

(v) *Comment by Commissioner A. do Amaral :*

Stejneger's standpoint is certainly quite correct. If considered from a purely nomenclatorial angle, it is not objectionable. For practical reasons, however, as set forth by Parker, it must not be adhered to. I favour the suspension of the rules as proposed by Parker in this case.

(vi) *Comment by Commissioner James L. Peters :*

This appears to be just the type of case for which suspension of the rules should be granted, since there seem to be very definite advantages to be gained by retaining *Bitis* Gray, 1842. Where a name relates to a species of considerable economic or medicinal value, a large amount of literature dealing with these aspects inevitably arises; the contributors are not at all concerned with taxonomy and have no knowledge of nomenclature and, having no such knowledge, keep right on using the names to which they are accustomed. Under these circumstances it would seem best to grant suspension of the rules.

(vii) *Comment by Commissioner Francis Hemming :*

One of the most important functions of the International Commission is to secure stability for the names of organisms of importance in the applied sciences such as medicine and agriculture. It was largely for this purpose that the International Congress of Zoology first established the *Official List of Generic Names in Zoology* and later conferred upon the Commission plenary power to suspend the rules in certain cases. The present, in my opinion, is clearly a case where resort should be had to both these remedies, that is to say the name *Cobra* Laurenti, 1768, should be suppressed under the plenary powers and the name *Bitis* Gray, 1842, should be placed on the *Official List*.

6. At the same time seven other Commissioners intimated that they also considered that the plenary powers should be used in this case.

7. At the time when the vote was taken on this case, there were two vacancies on the Commission and of the 16 Members of the Commission, 14 Commissioners voted in favour of granting the petition, 1 Commissioner did not vote, and 1 Commissioner expressed the view that the suspension of the rules was not necessary, since, in his opinion, any danger to human beings through confusion between the generic name *Cobra* Laurenti and the vernacular word "cobra" could be obviated through the careful labelling and description of anti-venom remedies.

8. In view of the importance of the issues raised in this case and of the fact that all but two of the Commissioners had promptly and emphatically voted in favour of the suspension of the rules, Commissioner Karl Jordan, as President of the Commission, ruled in December 1938 that, as a preliminary to the issue of an *Opinion* granting the relief asked for in the petition, the case should be advertised in the manner prescribed in proviso (a) to Article 1 of the Plenary Powers Resolution adopted by the Ninth International Congress of Zoology at Monaco in March 1913,⁷ notwithstanding the fact that one Commissioner (Witmer Stone) had expressed the view that the suspension of the rules was not necessary in this case.

9. In view of the general feeling of the members of the Commission in regard to this case, Commissioner Witmer Stone raised no objection to this course and acquiesced in the arrangement that he should be deemed not to have formally voted against the action proposed to be taken by the Commission.

10. Before this case could be advertised in the manner indicated in paragraph 8 above, it was necessary to determine the type species of the genus *Bitis* Gray, 1842, since the determination of this question was an indispensable preliminary to the placing of that name on the *Official List of Generic Names in Zoology*. In response to a request by the Secretary to the Commission, Dr. H. W. Parker furnished to the Commission the following note on this subject (16th June 1939) :—

As regards the type of *Bitis* Gray, 1842, this name was proposed as a subgenus or section of a genus ⁸ for five nominal species of which two are

⁷ See *Declaration 5* (1943, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1 : 31-40).

⁸ Gray applied what he called "*Clotho* Wagler (part)" as the name of the genus of which he regarded *Bitis* as a subgenus. The name *Clotho* was,

species inquirendae; the first mentioned of the other three is "*Clotho arietans*. *Echidna arietans*, Merrem. *Col. Bitis*, Bonat. *Vipera inflata*, Burchel. *V. brachyura* Cuv. Wagler Amp. t. 11. *V. arietans*, Schlegel, 557, t. 21, fig. 2, 3."

I take it that the citation as a synonym, of *Col. Bitis* makes the type by absolute tautonymy, were it not for the unfortunate fact that there is no such name; Bonnaterre actually has a *Coluber Bitin* based on Seba II Pl. 98 fig. 5 etc. What are your views on the point?

Echidna arietans was proposed by Merrem in 1820, and I notice that he also includes, as one of its synonyms, "*Coluber Bitis* Bonnat. Oph. p. 22."

11. In further discussion with Commissioner Francis Hemming (*Secretary to the Commission*), Dr. Parker stated that the works of the old authors such as Seba were so difficult to interpret that he could not affirm with absolute certainty that *Coluber bitin* Bonnaterre (= Seba 2 pl. 98 fig. 5) was the same species as *Vipera (Echidna) arietans* Merrem, 1820, the generally accepted type of *Bitis* Gray, 1842.

12. This aspect of the present case was discussed at the meeting of the Plenary Conference between the President of the Commission and the Secretary to the Commission convened in London on Monday, 19th June 1939, under the arrangement agreed upon by the International Commission at their meeting held at Lisbon on Wednesday, 18th September 1935 (Lisbon Session, 5th Meeting, Conclusion 10).⁹ At this meeting, the Plenary Conference

however, never published by Wagler and it must be attributed to Gray himself, since he was the first author to publish it. He published it first in 1840, *Syn. Contents Brit. Mus.* (ed. 42) : 41, but the name there appeared without an "indication" within the meaning of proviso (a) to Article 25 and was therefore a *nomen nudum*. It was next published by Gray in 1842, *Zool. Miscell.* : 69, where a diagnosis was given but no type was designated. This is the first valid publication of the name *Clotho*. Thus, the name *Bitis* Gray, 1842, was published as the name of a new subgenus of the genus *Clotho*, then also a new name. The type of *Clotho* Gray, 1842, is, by absolute tautonymy, *Cobra clotho* Laurenti, 1768, which (as stated by Stejneger in the passage quoted in paragraph 2 of the present *Opinion*) is usually treated as being identical with *Cobra atropos* Laurenti, 1768, which, in turn, is identical with *Vipera (Echidna) arietans* Merrem, 1820, the species which (as explained by Dr. Parker in the passage quoted in paragraph 10 of the present *Opinion*) is commonly accepted as the type of *Bitis* Gray, 1842. Thus, the subgeneric name *Bitis* Gray, 1842, is a synonym of the generic name *Clotho* Gray, 1842. The name *Bitis* Gray is not, however, invalidated on this account, since *Clotho* Gray is itself invalid under Article 34 of the Code by reason of its being a homonym (1) of *Clotho* Faujas de St. Fond, 1808, *Ann. Mus. Hist. nat.*, Paris 11 (65) : 390, (2) of *Clotho* Walckenaer, 1808, in Latreille, *Gen. Crust. Ins.* 4 : 371, and (3) of *Clotho* de Blainville, 1824, *Dict. Sci. nat.* 32 : 344.

⁹ For the text of this decision, see 1943, *Bull. zool. Nomencl.* 1 : 48.

(Plenary Conference, 1st Meeting, Conclusion 16)¹⁰ :—

(a) took note :—

- (i) that *Vipera (Echidna) arietans*, Merrem, 1820 (*Tent. Syst. Amph.* : 152) was the generally accepted type of *Bitis* Gray, 1842 (*Zool. Miscel.* : 69);
- (ii) that the above species was accepted as the type of *Bitis* Gray by absolute tautonymy (Article 30(I)(d) of the Code) through the citation by Gray of "*Col. Bitis Bonat.*" as a synonym of *Vipera (Echidna) arietans* Merrem, the third of the five nominal species placed by him in *Bitis* Gray, when he first published that name;
- (iii) that in fact, however, Bonnaterre never published the name *Coluber bitis* but that he had published (1790, *Ency. méth. (Oph.)* : 22) a name "*Coluber Bitin*" based on fig. 5 on pl. 98 of volume 2 of Seba's *Thesaurus*;
- (iv) that, although it was probable that *Coluber bitin* Bonnaterre was identical with *Vipera (Echidna) arietans* Merrem, this identification could not be affirmed with certainty;

(b) agreed :—

- (i) that part of the object of the Commission in deciding to suppress the name *Cobra Laurenti*, 1768, was to validate the existing use of the name *Bitis* Gray, 1842, but that, having regard to (a) (ii) to (iv) above, it was doubtful (1) whether *Vipera (Echidna) arietans* Merrem could be regarded as the type of *Bitis* Gray by absolute tautonymy and therefore (2) whether under the Code the existing use of *Bitis* Gray was correct;
- (ii) that in these circumstances the proper course to give effect to the decision taken by the Commission would be to indicate in the forthcoming advertisement of the proposed use of the Commission's plenary powers for the purpose of suppressing the name *Cobra Laurenti*, 1768, that it was proposed also to use those powers to set aside all type designations for the genus *Bitis* Gray, 1842, made prior to the date of the Commission's *Opinion* thereon, and to designate *Vipera (Echidna) arietans* Merrem, 1820, as the type of that genus;
- (iii) that effect to the decision recorded in (ii) above should be given in the advertisement of this case shortly to be issued.

13. Effect was given to the foregoing decision in the advertisement (A. (n.s.) 1) which was despatched on 24th June 1939 to the journals specified in proviso (a) to Article 1 of the Plenary Powers Resolution referred to in paragraph 8 above.¹¹

14. In the twelve months following the despatch for publication of the advertisement referred to above, no communication of any kind was received by the Commission objecting to the issue of an *Opinion* in the terms proposed. In view, however, of the delays in postal communications resulting from the existence of a state

¹⁰ For the full text of this Conclusion of the minutes of the meeting of the Plenary Conference, see 1943, *Bull. zool. Nomencl.* 1 : 83-85.

¹¹ For a bibliographical reference to the Plenary Powers Resolution, see footnote 7.

of war in Europe, the Secretary to the Commission thought it proper to direct that a further period of one year should be allowed to elapse in order that all reasonable opportunity should be afforded for the lodging of objections to the course proposed, should a zoologist in any country desire so to proceed. The period of grace so extended expired on 24th June 1941.

15. The position as regards this case was reviewed by the Secretary to the Commission at the close of September 1941. The position then disclosed was that no objection had been raised against the action proposed and that a unanimous majority of the members of the Commission had voted in favour of that course. Accordingly on 1st October 1941, the Secretary to the Commission, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot in this case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

16. The decision taken by the Commission in the present case is :—

(a) under suspension of the rules :—

(i) to suppress the name *Cobra* Laurenti, 1768, *Specimen medicum* : 103 (Class Reptilia, Order Squamata) ;

(ii) to set aside all type designations for the genus *Bitis* Gray, 1842, *Zool. Miscell.* : 69 (Class Reptilia, Order Squamata) made prior to the date of this *Opinion* and to designate *Vipera* (*Echnida*) *arietans* Merrem, 1820, *Tent. Syst. Amph.* : 152, as the type of that genus ;

(b) to add the generic name *Bitis* Gray, 1842, defined as in (a)(ii) above, to the *Official List of Generic Names in Zoology* as Name No. 621.

17. The following fourteen (14) Commissioners voted in favour of the present *Opinion* :—

do Amaral ; Arndt ; Cabrera ; Calman ; Chapman ; von Hankó ; Hemming ; Jordan ; Pellegrin ; Peters ; Richter ; Silvestri ; Stejneger ; and Stiles.

18. No Commissioner voted against the present *Opinion*.

19. The following two (2) Commissioners did not vote on the present *Opinion* :—

Esaki ; and Stone.

20. In addition, the following three (3) Commissioners, who were elected members of the Commission after the vote on this case was taken but before the ballot was closed, did not take part in its consideration :—

di Caporiacco; Dymond; Jaczewski.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION.*

WHEREAS the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913, adopted a Resolution conferring upon the International Commission on Zoological Nomenclature, acting for the International Congress of Zoology, Plenary Power to suspend the rules as applied to any given case, where, in the judgment of the Commission, the strict application of the said rules would clearly result in greater confusion than uniformity, provided that not less than one year's notice of the possible suspension of the rules as applied to the said case should be given in two or more of five journals named in the said Resolution and provided that the vote in the Commission was unanimously in favour of the proposed suspension of the rules; and

WHEREAS the suspension of the rules is required to give valid force to the provisions of the present *Opinion*; and

WHEREAS not less than one year's notice of the possible suspension of the rules as applied to the present case has been given to two or more of the journals referred to in the Resolution adopted by the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913; and

WHEREAS the vote in the Commission on the present case was unanimously in favour of the issue of an *Opinion* in the terms of the present *Opinion*;

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of

Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Eighty Eight (*Opinion* 188) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this twelfth day of September, Nineteen Hundred and Forty Four, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

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This journal has been established by the International Commission as their Official Organ in order to provide a medium for the publication of :—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision ;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above ; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

The *Bulletin* was established in 1943. Part 5 has now been published. Parts 6 and 7 are in the press.

Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature.

The above work is being published in three volumes concurrently, namely :—

Volume 1. This volume will contain *Declarations* 1-9 (which have never previously been published) and *Opinions* 1-133 (the original issue of which is now out of print). Parts 1-20 (containing *Declarations* 1-9 and *Opinions* 1-11) have now been published. Further Parts will be published shortly.

Volume 2. This volume will be issued in 52 Parts, comprising all the decisions taken by the International Commission at their meeting at Lisbon in 1935, namely *Declarations* 10-12 (with Roman pagination) and *Opinions* 134-181 (with Arabic pagination). Part 52 will contain the index and title page of the volume. Parts 1-35, containing *Declarations* 10-12 and *Opinions* 134-165, have now been published. Further Parts will be published shortly.

Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-8 (containing *Opinions* 182-189) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £969 16s. 1d. were received up to 30th June 1945. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

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Edited by

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

Secretary to the Commission

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OPINION 189

Suspension of the rules for *Arca* Linnaeus, 1758
(Class Pelecypoda, Order Filibranchiata)

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OPINION 189.

SUSPENSION OF THE RULES FOR *ARCA* LINNAEUS, 1758 (CLASS PELECYPODA, ORDER FILIBRANCHIATA).

SUMMARY.—Under suspension of the rules (i) all type designations for the genus *Arca* Linnaeus, 1758 (Class Pelecypoda, Order Filibranchiata), made prior to the date of this *Opinion* are hereby set aside and (ii) *Arca noae* Linnaeus, 1758, is hereby designated as the type of that genus. The name *Arca* Linnaeus, with the type designated above, is hereby added to the *Official List of Generic Names in Zoology* as Name No. 622.

I.—THE STATEMENT OF THE CASE.

This case was submitted to the International Commission on Zoological Nomenclature by Dr. Philip W. Reinhart, Stanford University, California, in the following letter dated 24th June 1932 :—

The purpose of this letter is to place before you the facts concerning the designation of a pelecypod genus *Arca*, in the hope that the International Commission on Zoological Nomenclature will take the step necessary for the stabilization of the nomenclature of this genus, which is at present in a confused condition, due to lack of agreement among systematists as to whether *Arca noae* or *A. antiquata* should be regarded as the type of the genus.

Since 1847, *Arca noae* Linnaeus had been accepted almost universally as the type species of *Arca*, following the designation of Gray (1847, *Proc. zool. Soc. Lond.* 15 : 197). This same species had previously been designated as the type of *Arca* by Schmidt (1818, *Versuch Einricht. Conchyl.-Samml.* : 65, 178) but this designation seems to have been overlooked by most systematists. At any rate, Gray's designation, as mentioned above, was almost universally accepted.

Within the last five years, however, there has been brought to light the fact that two other species have been designated as the type of *Arca* previous to 1847, one of these even before Schmidt's designation of 1818 :

- (1) Cox (1927, *Pal. Zanzibar* : 93) pointed out that Children had designated *A. tortuosa* Linnaeus the type of *Arca* in 1823 (*Lamarck's Gen. Shells* : 46); and
- (2) Stewart in 1930 (*Acad. nat. Sci. Philad. Spec. Publ.* 3 : 83) and Grant and Gale in 1931 (*Mem. San Diego Soc. nat. Hist.* 1 : 137) disclosed the fact that *A. antiquata* Linnaeus had been designated the type species by Schumacher in 1817 (*Essai nouv. Syst. Vers test.* : 172).

Inasmuch as Schumacher's designation of *A. antiquata* antedates Schmidt's of *A. noae* by one year, *A. antiquata* (which since 1847 has been regarded as type of the subgenus *Anadara*) has been accepted as the typical

species of *Arca* by Grant and Gale and by Stewart, although Stewart was reluctant at the change, and expressed the hope (*loc. cit.* 3 : 85) that the International Commission would restore the genus *Arca* to its former well-known status by arbitrarily establishing *A. noae* as the type species.

I shall now quote the reasons, as brought forward by Stewart, for restoring *A. noae* as type species. Stewart (*loc. cit.* 3 : 84) :—

The first serious student of *Arca*, after Linné, seems to have been Martini (*Beschrft., Berl. Ges. Naturf. Fr. v. 3, 1777, pp. 283-298*), who recognised *A. noae* and *A. barbata* as the true arks—"wahren Archen"—and separated them on the basis of the width of the ligamental area into "Die ächte Noachsarche"—*A. noae*—and "Die bartige Noachsarche"—*A. barbata*. Martini's statement is practically a subsequent type designation for *Arca* but the word type was not used. Chemnitz¹ also placed *A. noae* in his "*Arcae verae*" but not as the first species, retaining the first species of Linné as his first species (*Conch.-Cab. v. 7, 1784, p. 165, 177, pl. 53, fig. 529-531, pl. 54, fig. 532-533*). In the "Museum Boltinianum," *A. noae* is the first species under the second division, called "Verae. Die wahren Archen" (p. 174).

In 1799 and 1801 Lamarck cited *A. noae* as an example of *Arca*. As was mentioned previously, Gray in 1847 (*Proc. zool. Soc. Lond. 15 : 197*) designated *A. noae* type of the genus. This species was also used as type by :

Woodward, Stoliczka, Kobelt, Dall, and Lamy, while K. and A. Adams, Tryon, Fischer, and Bucquoy, Dautzenberg and Dollfuss placed *A. noae* in *Arca* s.s. Until the recent revival of Children's type designation (Cox, in *Pal. Zanzibar, 1927, p. 93*) it is doubtful if there has been a single worker since 1847 who has not regarded *A. noae* as the typical *Arca*. (Stewart, *loc. cit.* 3 : 85).

Stewart summarizes this matter as follows (: 85) :—

The popularity of *Arca noae* as type species for *Arca* is due to two factors—the first, its citation by Lamarck in 1799 and 1801 has undoubtedly influenced subsequent workers, while the second factor, the obvious association of the name *Arca* with *A. noae*, influenced 18th century workers as well as modern students. The first subsequent type designation yet found, seems so unfortunate that it may be reasonable to expect that for this case the International Commission on Zoological Nomenclature will waive the rules. *Arca noae* as type species for *Arca* has in its favor, virtual tautonymy and a long standing precedence as well as a virtual type designation by Martini in 1777. Against it is one type designation (1817) with but a year's priority if Schmidt's type designation be accepted (1818). Disregarding Schmidt, there would be three type designations, each for a different species, prior to the designation of *A. noae*. To arbitrarily establish *A. noae* as type species for *Arca* would not be such a radical step as the Commission has already taken in favor of the generic name *Spirifer* (*Opin.* 100).

I hope that the Commission, on reviewing the above facts, will consider it advisable to follow Stewart's suggestion to establish *A. noae* as type of *Arca* : such an action would stabilize the present unsettled condition. If this step is not taken, much confusion will undoubtedly result, because many systematists feel that the evidence in favor of *A. noae* as type is fully as strong as, if not stronger than, that in favor of *A. antiquata*, and it appears that only through a ruling by the Commission will the matter be definitely settled.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. On receiving the application quoted in paragraph 1 above, Dr. C. W. Stiles, as Secretary to the Commission, took steps to

¹ For the ruling by the International Commission on the status of names in volumes 1 to 11 of Martini (F. H. W.) and Chemnitz (J. H.), *Neues systematisches Conchylien-Cabinet, 1769-1795, see Opinion 184* (pp. 25-36 of the present volume).

ascertain the views of representative specialists interested in this question. The following letters on this subject were received by the Commission during the period from September 1932 to January 1935 :—

(a) *Comment by Dr. Paul Bartsch, Curator of Mollusks and Cenozoic Invertebrates, United States National Museum, Washington*
(2nd September 1932)

Any one working with the genus *Arca* is thoroughly familiar with the problem which has been very clearly presented by Dr. Stewart. Refer to his statement which you will find in Reinhart's letter.

When the genus *Arca* will have been re-monographed—that is the family given a thorough modern overhauling—a number of changes will have to be made and some of the things will have to be juggled about. At the present time, it does seem to all of us who have worked in this field that it would probably be best to suppress the older type designation and give precedence to Gray's type designation, *Arca noae*. If we do this, we have another exception and personally I am disinclined towards exceptions, but I would be ready to vote in favor of the exception had I a voice in the matter.²

(b) *Comment by Dr. Henry A. Pilsbry, Curator, Department of Mollusks and Marine Invertebrates, Academy of Natural Sciences of Philadelphia* (9th January 1933)

In the case of *Arca*, I believe that the interests of science would be best served by a decision in favor of using *A. noae* as the genotype. The *arcas* of this type were commonly known as "Noah's ark shells" in pre-Linnean times. It appears to me that Linnaeus' citation of "*Arca Noae*" Rumphius in his synonymy of *Arca noae* should be a sufficient indication to make this species type by tautonymy. See *Syst. Nat.* (10) p. 693.³

² On 3rd February 1936 Dr. Bartsch wrote to Dr. Stiles (who was then in Florida) asking whether it was the fact that the Commission were contemplating "sanctioning and sponsoring an exception against *Navicula*." Dr. Bartsch added: "*Navicula* is a splendid little group with a fine geological history and beyond question creating no more confusion by conservation than suppression. Hold on to it!" On his return to Washington, Dr. Stiles replied on 21st February 1936 that according to the records at his disposal it appeared that the case of *Navicula* had only come before the Commission "in connection with *Arca*." With the same letter Dr. Stiles enclosed a copy of the "Circular Letter" which in the meanwhile he had issued to Members of the Commission in which he had quoted the comments so far received from specialists in regard to the proposal for the suspension of the rules in the case of *Arca* Linnaeus. Dr. Stiles added that this case had not been dealt with by the Commission at their meeting held at Lisbon in September 1935 and that it was therefore open to Dr. Bartsch to furnish to the Commission any further observations that he might desire. To this letter, Dr. Bartsch replied on 11th May 1936 as follows: "The maturer judgment of a year after and the fact that *Navicula* is involved also in this case, of which *Arca noae* is the type, I would strike out the last part of my dictum and say, 'Stick to the rules.'"

³ In connection with this aspect of the case, see the observation by Commissioners Jordan and Richter quoted in paragraph 4 below.

Any other course will introduce confusion by shifting the name *Arca* to the genus now called *Anadara*. Both of these names are in general and very wide use. If such confusion can lawfully be avoided, a decision now would be particularly timely since the changes proposed by Cox and Stewart have had scarcely any followers as yet.

- (c) *Comment by Dr. G. D. Hanna, Curator, Department of Palaeontology, California Academy of Sciences, San Francisco*
(4th February 1933)

Dr. Pilsbry tells me that the Commission has under consideration the question of the type species of the genus *Arca*. The name is involved with the name *Navicula*, and I hope that it will be possible for the species *noae* to be designated as the type.

- (d) *Comment by Dr. W. P. Woodring, Geological Survey, United States Department of the Interior, Washington* (1st March 1933)

I am in favor of accepting *Arca noae* as the type of *Arca*.

- (e) *Comment by Dr. Mary J. Rathbun, United States National Museum, Washington* (3rd March 1933)

I feel pretty sure that the International Commission will abide by its rules. That means that *antiquata* will be accepted as the type of *Arca*. The Commission is not allowed to choose one of two, as Martini's *noae* and *barbata*, and it insists on the word "type." Lamarck's "examples" are never construed as "types."

- (f) *Comment by Mr. L. R. Cox, Department of Geology, British Museum (Natural History)* (11th March 1933)

I am not in favour of submitting cases for suspension of the rules to the International Commission *ad infinitum*, but quite agree that this is a case which should be submitted, since it is one in which the application of the rules is ambiguous.

Schumacher's alleged type-designation is very unsatisfactory. He does not say "I take the species *A. antiquata* as type of the genus *Arca*" but something to the effect that "as type of the genus I take the figure of the hinge of *A. antiquata* given by Chemnitz"; in other words, he does not use the word "type" in the sense "genotype," but merely means that he regards a certain type of hinge as characteristic of the genus. There also seems to be an objection to Schmidt's designation, namely, that he names two types for *Arca*, one of which, however, is not in the original Linnean list.

In the circumstances, therefore, I fully agree that it will be desirable to apply to the International Commission for a definite ruling as to what species shall be considered as genotype of *Arca*; and, of course, the species which should be named is the one until recently accepted by most authors, namely, *A. noae*.

- (g) *Comment by Professor P. Dautzenberg, Musée National d'Histoire Naturelle (a former member of the International Commission)*
(dated 18th April 1933)

Pour le nom générique *Arca*, je partage absolument l'avis du Dr. R. Stewart et je suis bien décidé à lui conserver le sens qui lui a été donné pendant plus d'un siècle par les malacologistes.

Une application trop stricte de la loi de priorité a produit de résultats désastreux. A mon avis, la loi de priorité quelque respectable qu'elle soit, doit être pratiquée avec circonspection et en tenant compte de la valeur relative des oeuvres scientifiques. Mais quelques naturalistes désirant de créer du nouveau, ont recueilli des publications plus or moins estimables, les moyens de démolir des noms bien connus et universellement employés en leur en substituant d'autres qui ne méritent vraiment pas d'être resuscités.

Le Dr. K. Apstein a fait paraître en 1915 une liste⁴ de *Nomina conservanda* a laquelle je me rallie sans restrictions. Le genre *Arca* y figure avec *A. noae* comme type.

(h) *Comment by Commissioner F. A. Bather, Keeper, Department of Geology, British Museum (Natural History) (9th May 1933)*

According to the information before me, I agree with Mr. Cox that Schumacher cannot be considered to have selected *A. antiquata* as genotype. Schumacher did not select a species as type, he did not even select a specimen of a species,⁵ or even the figure of a specimen of a species, but he merely referred to the figure of the hinge on a particular specimen. I do not see how, under the rules, this could be taken as a designation of the type. Unless some stronger argument in favour of the change is put forward, I should certainly vote in favour of retaining *Arca noae* as the genotype.

(i) *Comment by Dr. Hubert G. Schenck, Department of Geology, Stanford University, California (8th January 1935)*

Recently while in Europe I began a study of certain Pelecypods, and I completed a preliminary manuscript which I should like to enlarge for publication in the near future. However it involves the question of what is the type of *Arca*. Upon my return to this institution I was informed that Dr. P. W. Reinhart had taken this matter up with you some time ago and that it seems possible that the species *noae* will be taken as the type of the genus. This is the sentiment that I have in the matter, and I hope very much that the Commission will decide that way.

3. In February 1935 Dr. Stiles issued a "Circular Letter" (no. 278) on this subject to all members of the International Commission. This Circular Letter contained the text of Dr. Reinhart's application and the comments received from specialists quoted in paragraph 2 above. Dr. Stiles stated that, as he had been unable to examine the original citations involved in this case, he hesitated to draft an *Opinion*, but that the evidence received seemed to favour "*noae* as type of *Arca*." He accordingly invited Commissioners to vote on this question. At the same time he invited Commissioners to furnish supplementary observations on this case for incorporation in the *Opinion* when drafted.

⁴ The decision of the Commission on the "Apstein List" is given in *Opinion* 74.

⁵ Schumacher would have acted incorrectly (under the present Code) if he had selected a specimen rather than a species as the type of a genus. See *Opinions* 65 and 168.

4. The following comments were received in response to the foregoing invitation :—

(i) *Comment by Commissioner Karl Jordan :*

According to the literature quoted by Linnaeus, the name *Arca noae* was taken from Rumphius. The quotation of "*Arca Noae*" under the second species is tantamount to a type designation.

(ii) *Comment by Commissioner Rudolf Richter :*

In Verbindung mit "*Arca*" hat "*noae*" den Sinn von "*Arca noae*." Es besteht also eine Art von "*involvierter Tautonymie*." Daher sollte die Art *noae* L. as Genotyp von *Arca* gelten. In Gemeinschaft mit meinen zoologischen Kollegen Dr. Robert Mertens.

5. In March 1935 Dr. Stiles suggested that this case should be settled by the Commission at their Session due to be held at Lisbon in September of that year. Owing to the exceptionally heavy agenda and the short time available for meetings, the Commission were unable to deal with this case during their Lisbon Session. It was accordingly arranged that a decision should be obtained by means of the postal ballot which (as explained in paragraph 3 above) had been opened in March of that year.

6. In May 1936 this case was duly advertised in the manner prescribed in proviso (a) to Article 1 of the Plenary Powers Resolution adopted by the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913.⁶ No communication of any kind objecting to the suspension of the rules in favour of *Arca* Linnaeus was received by the Commission within the period of one year prescribed in the said Resolution.

7. Later the whole of the references involved in the case of *Arca* Linnaeus were checked by Commissioner Francis Hemming (*Secretary to the Commission*), with the kind assistance of Dr. L. R. Cox, Professor Hubert G. Schenck, Dr. P. W. Reinhart, Dr. A. Myra Keen, and Mr. R. Winckworth. This investigation showed that in all five authors have designated types for this genus or taken action which has since been interpreted as constituting type designations. The relevant particulars are given in the present paragraph and in paragraph 8 below :—

ARCA Linnaeus, 1758

Linnaeus, 1758, *Syst. Nat.* (ed. 10) : (1) : 693.

⁶ For the text of the Plenary Powers Resolution, see *Declaration 5* (1943, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature 1* : 31-40).

The genus, as constituted by Linnaeus, contained fifteen species (or nominal species) but (naturally) no type was specified. Of these species, the following only are relevant for the present purpose :—

- Species no. 1. *Arca tortuosa*
 : : 2. *Arca noae*
 : : 3. *Arca barbata*
 : : 6. *Arca antiquata*

8. The type designations and alleged type designations for this genus are as follows :—

- (1) Schumacher (C. F.), 1817, *Essai d'un nouveau Système des Habitations des Vers testacés* : 172

Pour le type du genre j'ai donné la fig. 2, Pl. xix, de la charnière de l'*Arca antiquata* Lin. qu'on trouve figurée dans Chemn. 7, pag. 201, Tab. 55, fig. 548.

- (2) Schmidt (F. C.), 1818, *Versuch über die beste Einrichtung der Conchylien-Sammlungen* : 65, 178

Two types cited : *Arca noae* Linnaeus for *Arca* Lamarck (= *Arca* Linnaeus, Lamarck) and *Arca rhomboidea* Gmelin, 1789, a non-Linnean species for *Arca* Megerle von Mühlfeld (= *Arca* Linnaeus, Megerle von Mühlfeld).

- (3) Children (J. G.), 1823, *Lamarck's Genera of Shells* : 46

Arca tortuosa Linnaeus, 1758, clearly designated as the type of *Arca* Linnaeus.

- (4) Anton (H. E.), 1839, *Verzeichniss der Conchylien in der Sammlung von H. E. Anton* : 13

Arca barbata Linnaeus, 1758, designated as the type of the nominal subgenus *Arca* Linnaeus, 1758 (*sensu stricto*) of the genus *Arca* Linnaeus, 1758. This designation was effected by the printing of the name *Arca barbata* in capital letters, in accordance with the system indicated by the author on p. vi of the Introduction, where the following statement will be found : "Gattungen, deren Typusart mit Versalbuchstaben gedruckt ist . . ."

- (5) Gray (J. E.), 1847, *Proc. zool. Soc. Lond.* 15 (178) : 197

Arca noae Linnaeus, 1758, is cited as the type of *Arca* Linnaeus, 1758.

9. The conclusions to be drawn from the foregoing evidence are as follows :—

- (i) Schumacher, 1817

Rule (g) in Article 30 of the International Code directs that "The meaning of the expression 'select the type' is to be rigidly construed." Schumacher's action does not comply with this requirement since (as observed by Calman *in litt.*, 12th February 1943) Schumacher on this occasion was clearly using the word "type" as the equivalent of "typical species" in the morphological or taxonomic sense, i.e. as the species in which the characters of the

genus are most fully developed or clearly shown. In naming *Arca antiquata* Linnaeus as the type of *Arca* Linnaeus, Schumacher had not in mind—or at least did not make it sufficiently clear for the purposes of rule (g) in Article 30 that he had in mind—to specify the above species as the genotype in the nomenclatorial sense, i.e. as the species to which the generic name *Arca* Linnaeus must adhere in the event of that genus being subdivided. The alleged type designation by Schumacher must therefore be rejected.

(ii) Schmidt, 1818

Schmidt specified a type for *Arca* Lamarck and another type for *Arca* Megerle von Mühlfeld. Neither of these authors himself erected a genus *Arca* and both must be regarded as having referred (implicitly if not explicitly) to Linnaeus. If this had not been the intention of these authors, the subsequent action of Schmidt could have had no possible bearing upon the type of *Arca* Linnaeus, since his action would have been concerned not with *Arca* Linnaeus but with two genera having the same name (*Arca*) published by two later authors. It is clear from Schmidt's action that he, like Schumacher, was using the term "type" to denote typical species in the morphological or taxonomic sense and not to denote the genotype of a genus. For this reason and because he designated two types (instead of one only), Schmidt's action does not constitute a type designation in the "rigidly construed" sense required by rule (g) in Article 30 of the Code. The alleged type designation by Schmidt must therefore be rejected.

(iii) Children, 1823

Children clearly designated as the type of *Arca* Linnaeus a species, *Arca tortuosa* Linnaeus, 1758, which was one of the species included in that genus by Linnaeus on the occasion (1758) when he first published the name *Arca* Linnaeus. Since, so far as is known, no other author had selected one of those species as the type of this genus, Children's action is a valid designation of the type of *Arca* Linnaeus, 1758, under rule (g) in Article 30 of the Code, and *Arca tortuosa* Linnaeus is therefore the type of *Arca* Linnaeus under the Code (i.e. in the absence of special action by the International Commission to suspend the rules under their plenary powers), unless it can be shown that some other species is the type of *Arca* Linnaeus under any of the earlier provisions of Article 30, i.e. under any of rules (a) to (f). (On this aspect of the question, see paragraphs 10-12 below.)

(iv) Anton, 1839 and Gray, 1847

The action of Anton (1839) under the Code in selecting *Arca barbata* Linnaeus as the type of *Arca* Linnaeus would have been valid, if it had not been for the prior (and, from the point of view of Article 30, valid) action of Children (1823) in selecting *Arca tortuosa* Linnaeus as the type of this genus. Similarly, Gray's action (1847) in selecting *Arca noae* Linnaeus as the type of *Arca* Linnaeus would have been valid, if Children (1823) had not selected *Arca tortuosa* Linnaeus as the type of that genus and if Anton (1839) had not selected *Arca barbata* Linnaeus as the type of that genus. In these circumstances, the action both of Anton and of Gray is invalid under the Code.

10. It will be seen from the foregoing analysis that, so far as rule (g) in Article 30 of the Code is concerned, there is

no doubt that under the Code *Arca tortuosa* Linnaeus, 1758, is the type of *Arca* Linnaeus, 1758. At this point, however, it is necessary to consider the bearing on the present case of the prior rules in Article 30. The only one of those rules which might have a bearing on the present case is rule (d), which relates to the fixing of genotypes by absolute tautonymy. This provision, which takes precedence over all subsequent rules in this Article of the Code, reads as follows:—

- (d) If a genus, without originally designated (see (a)) or indicated (see (b)) type, contains among its original species one possessing the generic name as its specific or subspecific name, either as a valid name or synonym, that species or subspecies becomes ipso facto type of the genus (type by absolute tautonymy).

11. As far back as 1930 Dr. Stewart (see *Acad. nat. Sci. Philad. Spec. Publ.* 3: 85, quoted in the penultimate paragraph of the application in the present case given in paragraph 1 of the present *Opinion*) drew attention to the virtual tautonymy in the present context of the words "*Arca*" and "*noae*." The considerations advanced by Dr. Stewart have since been emphasised by Dr. Henry A. Pilsbry (see paragraph 2(b) above), by Commissioner Karl Jordan (see paragraph 4(i) above) and by Commissioner Rudolf Richter (see paragraph 4(ii) above).

12. A certain degree of tautonymy is undoubtedly created by the use simultaneously of the generic name "*Arca*" and the specific name "*Arca noae*" but, in the absence of an *Opinion* by the International Commission, there is no means of determining whether the degree of tautonymy so created is sufficient to constitute "absolute tautonymy" within the meaning of rule (d) in Article 30 of the Code.

13. The position is therefore that, pending a decision by the International Commission, it is, and must remain, a matter of doubt whether the type of *Arca* Linnaeus, 1758, is:—

- (i) *Arca noae* Linnaeus, 1758, by absolute tautonymy under rule (d) in Article 30 of the Code; or
 (ii) *Arca tortuosa* Linnaeus, 1758, by subsequent designation (by Children, 1823) under rule (g) in Article 30 of the Code.

14. In the present application the Commission were asked to consider—and in fact have considered—whether the strict application of the rules in the case of *Arca* Linnaeus, 1758, would result in greater confusion than uniformity and, if, in their judgment, such confusion would clearly arise, how best they should

use their plenary powers to suspend the rules. The Commission were not asked to consider—and in fact have not considered in detail—the point relating to the interpretation of rule (d) in Article 30 of the Code (relating to the fixing of the types of genera by absolute tautonymy) discussed in paragraphs 10 to 12 above. In reaching their decision, the International Commission have, however, given due weight to the special considerations in regard to the interpretation of the foregoing provision of Article 30 which have been advanced in this case.

15. In recording his vote in favour of the proposal submitted by Dr. Reinhart, Commissioner Francis Hemming, as Secretary to the Commission, entered the following note in the record relating to this case :—

In dealing with genera proposed by early authors without originally designated or indicated type, it is often extremely difficult to determine with certainty the work in which a type was first validly selected under rule (g) in Article 30 of the Code. The difficulties so involved are very well illustrated by the case of *Arca* Linnaeus. Until 1927 Gray's designation (1847) of *Arca noae* Linnaeus had been almost universally accepted for over eighty years; Cox then drew attention to the prior designation of *Arca tortuosa* Linnaeus by Children (1823); but within three years of the publication of Cox's paper Stewart (1930) drew attention to a still earlier work in which Schumacher (1817) had taken certain action which was capable of being interpreted as constituting the designation of *Arca antiquata* Linnaeus as the type. Even since the submission of the present application to the Commission, attention has been drawn by Iredale to still another type designation for the genus *Arca* Linnaeus, namely that of *Arca barbata* Linnaeus by Anton (1839).

In cases of this kind there is clearly always a chance that some author may detect in the literature some type designation of still earlier date than any of those so far detected. This has already happened twice in the case of *Arca* Linnaeus, first (as shown above) by Cox and later by Stewart, and the possibility of it happening again cannot be altogether excluded. Constant changes in the genotype of a genus lead to great confusion and are open to strong objection. It is therefore very important that the *Opinion* now to be issued by the Commission on this subject should be so drafted as to obviate the possibility of any discussion, if later there is discovered a type designation for *Arca* Linnaeus of older date than any so far known. This object can best be secured by following the precedent set by the Commission at Lisbon in 1935 when dealing with certain similar cases in the Order Hymenoptera submitted by Professor Chester Bradley (Lisbon Session, 3rd Meeting, Conclusion 2),⁷ that is to say to use their plenary powers first to set aside all type designations for *Arca* Linnaeus, 1758, made prior to the date of the Commission's decision in regard thereto. Having done this, the International Commission can use their plenary powers to designate *Arca noae* Linnaeus, 1758, as the type of the genus. The name *Arca* Linnaeus, with the type so designated, could then readily be added to the *Official List of Generic Names in Zoology* as proposed.

⁷ For the text of the Conclusion here referred to see 1943, *Bull. zool. Nomencl.* 1 : 27-30.

16. At the time of the outbreak of war in Europe in September 1939, eight Commissioners had voted in favour of the suspension of the rules in the present case and none had voted against that course. For a time it was impossible to make any further progress in this matter, but in January 1943 Commissioner Hemming, as Secretary to the Commission, wrote to all those Members of the International Commission who had not voted on this case and who were resident in countries with which postal communications were still open and urged them to record their votes in this case. As a result, four additional affirmative votes were received between 14th February and 25th October 1943. The number of votes so received were more than sufficient to secure the adoption of the present *Opinion* and accordingly on 25th October 1943 the Secretary to the International Commission, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot in this case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

17. The decision taken by the Commission in the present case is :—

(a) under suspension of the rules :—

(i) to set aside all type designations for *Arca* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 693 (Class Pelecypoda, Order Filibranchiata) made prior to the date of this *Opinion*; and

(ii) to designate *Arca noae* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 693 as the type of *Arca* Linnaeus, 1758;

(b) to add the name *Arca* Linnaeus, 1758, with the type specified in (a)(ii) above, to the *Official List of Generic Names in Zoology* as Name No. 622.

18. The following twelve (12) Commissioners voted in favour of the present *Opinion* :—

do Amaral; Apstein; Cabrera; Calman; Chapman; Dymond; Fantham; Hemming; Jordan; Peters; Richter; and Stiles.

19. No Commissioner voted against the present *Opinion*.

20. The following four (4) Commissioners did not vote on the present *Opinion* :—

Esaki; Pellegrin; Stejneger; and Stone.

21. In addition two (2) Commissioners, namely Commissioners Bolivar y Pieltain and Silvestri, who were members of the Commission at the time when the ballot on this case was opened, resigned their membership of the Commission without having voted on the present *Opinion*.

22. The following four (4) Commissioners, namely Commissioners Arndt, di Caporiacco, von Hankó, and Jaczewski, were elected members of the Commission during the later stages of the ballot on this case and did not take part in its consideration.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913, adopted a Resolution conferring upon the International Commission on Zoological Nomenclature, acting for the International Congress of Zoology, Plenary Power to suspend the rules as applied to any given case, where, in the judgment of the Commission, the strict application of the said rules would clearly result in greater confusion than uniformity, provided that not less than one year's notice of the possible suspension of the rules as applied to the said case should be given in two or more of five journals named in the said Resolution and provided that the vote in the Commission was unanimously in favour of the proposed suspension of the rules; and

WHEREAS the suspension of the rules is required to give valid force to the provisions of the present *Opinion* as set out in the summary thereof; and

WHEREAS not less than one year's notice of the possible suspension of the rules as applied to the present case has been given to two or more of the journals referred to in the Resolution adopted by the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913; and

WHEREAS the vote in the Commission on the present case was unanimously in favour of the issue of an *Opinion* in the terms of the present *Opinion*;

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of

holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Eighty Nine (*Opinion* 189) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this fifth day of October, Nineteen Hundred and Forty Four, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

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This journal has been established by the International Commission as their Official Organ in order to provide a medium for the publication of:—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision;
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The *Bulletin* was established in 1943. Part 5 has now been published. Parts 6 and 7 are in the press.

Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature.

The above work is being published in three volumes concurrently, namely:—

Volume 1. This volume will contain *Declarations* 1–9 (which have never previously been published) and *Opinions* 1–133 (the original issue of which is now out of print). Parts 1–20 (containing *Declarations* 1–9 and *Opinions* 1–11) have now been published. Further parts will be published shortly.

Volume 2. This volume will be issued in 52 Parts, comprising all the decisions taken by the International Commission at their meeting at Lisbon in 1935, namely *Declarations* 10–12 (with Roman pagination) and *Opinions* 134–181 (with Arabic pagination). Part 52 will contain the index and title page of the volume. Parts 1–35, containing *Declarations* 10–12 and *Opinions* 134–165, have now been published. Further Parts will be published shortly.

Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1–8 (containing *Opinions* 182–189) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £969 16s. 1d. were received up to 30th June 1945. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

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OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

Edited by

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

Secretary to the Commission

VOLUME 3. Part 9. Pp. 109-128, 2 Plates.

OPINION 190

On the status of the name *Rhynchonella alta*
(Class Brachiopoda, Order Telotremata) commonly attributed to Samuel Calvin and treated as having been published in or about 1878

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Ref.

OPINION 190.

ON THE STATUS OF THE NAME *RHYNCHONELLA ALTA* (CLASS BRACHIOPODA, ORDER TELOTREMATA) COMMONLY ATTRIBUTED TO SAMUEL CALVIN AND TREATED AS HAVING BEEN PUBLISHED IN OR ABOUT 1878.

SUMMARY.—(i) The name *Rhynchonella alta* as a name for a species of the Class Brachiopoda has no status as from the date in or about 1878 in which a printed note containing that name in explanation of a photograph attached thereto was distributed by Samuel Calvin to students attending his lectures or to colleagues or was attached by Calvin to separates of his paper published in 1878 entitled "Notes on Fossils from Devonian Limestones at Independence, Iowa" (Calvin, 1878, *Bull. U.S. geol. geogr. Survey* 4 (3) : 725-730), in which the name *Rhynchonella alta* did not appear. (ii) The name *Rhynchonella alta* was first published within the meaning of proviso (a) of Article 25 of the International Code by Williams (H. S.), in 1890 (*Bull. geol. Soc. America* 1 : 495 pl. 12 figs. 5-7). The name of this species is therefore *Rhynchonella alta* Williams (*ex* Calvin), 1890. The type-horizon and locality of this species is the "Iowa beds, Solon, Iowa."

I.—THE STATEMENT OF THE CASE.

This case was first brought to the attention of the International Commission on Zoological Nomenclature by Professor G. Marshall Kay, Columbia University in the City of New York, in a letter with enclosure addressed by him on 2nd August 1928 to Commissioner C. W. Stiles, Secretary to the Commission. After explaining that he was concerned to determine the type of the species known as *Pugnoides altus*, Professor Marshall Kay proceeded as follows :—

This problem in nomenclature is concerned with the names of three species of brachiopods of the genus *Pugnoides*¹ that occur in the Upper Devonian of Iowa and New York. These three occur as follows : one at Solon, Iowa ; one at Rockford and Independence, Iowa ; and one in the Ithaca beds at Naples, New York. The confusion seems to have arisen from the distribution of specimens from the first two localities under the cheironym *Rhynchonella alta* by Calvin prior to 1880.

¹ *Pugnoides* Weller, 1910, *Bull. geol. Soc. Amer.* 21 : 512.

2. After further correspondence with Commissioner Stiles in August and October 1928, Professor Marshall Kay decided formally to request the International Commission to give a decision on the questions involved in this case. Accordingly, on 20th February 1929, Professor Marshall Kay submitted this case to the Commission in the four following documents:—

(A)—STATEMENT OF THE CASE.

Calvin, in or shortly after 1878, distributed a photographic plate² bearing on one side illustrations of several fossils and on the reverse an attached printed card with the names of the illustrated species, all but one of which had been published previously. The one species, "*Rhynchonella alta*," presents problems in nomenclature. The plate is referred to in bibliographic references of the time, but the distribution was such that only one copy of the plate is known today. This copy bears neither date nor place of publication.

Williams, in 1883, described a specimen from New York and called it identical with the form "Calvin described under the name *Rhynchonella alta* from the Iowa beds."

Williams, in 1890, published a figure of an Iowa specimen with the explanation "*R. pugnus* var. called *R. alta* Calvin."

Did the photographic plate with printed key distributed by Calvin in or about 1878 constitute publication of the species? If it did not, did Williams unknowingly name the New York species in 1883 by identifying it with a cheironym of Calvin that Williams thought a described species from Iowa? If not, is the author of the species Williams or Calvin on the basis of the publication of 1890?

(B)—REVIEW OF THE LITERATURE BEARING ON THE CASE OF
RHYNCHONELLA ALTA.

By way of introduction, it may be stated that there are fossils from three localities that are mentioned in the literature with respect to *Rhynchonella alta*. Inasmuch as they are now considered as three species of the genus *Pugnoides* Weller, 1910, it is necessary that it be determined which is the typical *R. alta*. The species are from the Lime Creek beds, as at Rockford, Iowa; from the State Quarry beds, at Solon, Iowa; and from the Ithaca High Point beds, Naples, New York; all are of upper Devonian age.

In 1876, at the meeting of the Iowa Academy of Science, Samuel Calvin read a paper on "New Species of Paleozoic Fossils." An abstract in the *American Naturalist* (1) states that he "described seven new species of Paleozoic fossils found mainly in Howard and Floyd counties, Iowa." *Rhynchonella alta* may have been one of the species, but inasmuch as the article never was published, *R. alta* Calvin, 1876, is a cheironym.

In 1878, Calvin published a paper on the Independence fauna (2) in which he did not mention *R. alta*. In distributing separates of this paper, or at a somewhat later time, he sent out a card photograph³ illustrating specimens of the species described in the paper, and he appended an illustration of the Solon form of *Rhynchonella*. The photograph bears illustrations on one side, and on the reverse has a printed key titled "Forms from the Dark Shales—at Independence—by Samuel Calvin," including "*Rhynchonella alta* Calvin, Solon, Iowa." This photograph seems to have reached several paleontologists, for it is mentioned in contemporary bibliographic

² See paragraphs 3–8 below and Plates 1 and 2.

³ See footnote 2.

references (3). However, the distribution was such that today only one copy of the plate is known, that a copy received by Dr. T. H. MacBride at the time, and now in the possession of Dr. A. O. Thomas of the State University of Iowa.

In 1883, Williams (4) published an article containing the following statements: * “*Rhynchonella pugnus* Martin of the Kinderhook group has not been recorded from the Lime Creek beds of Iowa, but the author has lately examined specimens from beds of apparently the same horizon in the central portion of Iowa [Solon] which are identical with the Ithaca variety of *R. pugnus* Martin. In 1877 [1876] Calvin described under the name *Rhynchonella alta* a species from the Iowa beds. The representative met with in the Ithaca beds offers varietal differences in which it approaches the European forms called *R. acuminata*.” There follows a comparison of the Ithaca species with the European species.

In 1890, Williams (5) published a figure of the Solon form with the designation “*Rhynchonella pugnus* var. called *R. alta* Calvin. Solon, Iowa.”

References :

- (1) [Anon.], in *American Naturalist*, vol. 11, 1876, p. 57; see also Thomas, A. O., *Iowa Acad. Science*, vol. 29, 1923, p. 93.
- (2) Calvin, S. Notes on Fossils from Devonian Limestones at Independence, Iowa: *Bull. U.S. geol. geogr. Survey*, vol. 4, 1878, pp. 725-730.
- (3) Williams, H. S. *American Jour. Science*, 3rd ser., vol. 25, 1883, p. 100; Walcott, C. D. *U.S. geol. Survey*, monog. 8, 1884, p. 156; Whiteaves, J. F. *Contrib. Canadian Paleont.*, vol. 1, pt. 3, 1891, p. 231.
- (4) Williams, H. S. *American Jour. Science*, 3rd ser., vol. 25, 1883, p. 99.
- (5) Williams, H. S. *Bull. geol. Soc. America*, vol. 1, 1890, p. 495, pl. 12, figs. 5-7.

(C)—SYNONYMY OF THE SPECIES OF THE GENUS *PUGNOIDES* WELLER, 1910, INCLUDED IN THE LITERATURE INVOLVING THE NAME *RHYNCHONELLA ALTA*.

(1) *The species from the State Quarry beds of Iowa as at Solon.*

- Rhynchonella alta* Calvin, 1878 or later, distributed photographic plate with printed key.
Rhynchonella alta Calvin, Williams, 1883, *American Jour. Science*, 3rd ser., vol. 25, p. 101 (not described).
Rhynchonella pugnus Martin var. *alta* Calvin, Williams, 1890, *Bull. geol. Soc. America*, vol. 1, p. 495, pl. 12, figs. 5-7.
Pugnax altus Calvin, Hall and Clark (part), 1894, *Nat. Hist. New York, Paleont.*, vol. 8, pt. 2, pl. 60, figs. 1-3.
Pugnoides solon Thomas and Stainbrook, 1921, *Science*, n.s., vol. 54, p. 508.
Pugnoides solon Thomas and Stainbrook, 1923, *Iowa Acad. Science*, vol. 29, p. 97, pl. 1, figs. 17-32.
Pugnoides solon Thomas and Stainbrook, Fenton and Fenton, 1925, *Contr. Mus. Geol.*, Univ. Michigan, vol. 1, p. 125, pl. 25, figs. 1-8.
Pugnax pugnus Calvin, 1898, *Iowa Geol. Survey*, vol. 7, p. 78 (listed only).

(2) *The species from the Lime Creek beds of Iowa as at Rockford.*

- Rhynchonella alta* Calvin, 1876, paper read before the *Iowa Acad. Science*, June 23, 1876; abstract, *American Nat.*, vol. 11, 1881, p. 57-8. Cheironym.
Rhynchonella subacuminata Webster, 1888, *American Nat.*, vol. 22, p. 1015.
Pugnax altus Calvin, Hall and Clarke (part), 1894, *Nat. Hist. New York, Paleont.*, vol. 8, pt. 2, pl. 60, figs. 4, 5.
Pugnoides altus (Calvin) Thomas and Stainbrook, 1923, *Proc. Iowa Academy Science*, vol. 29, p. 95, pl. 1, figs. 1-16.

* In reading this article, one must not be confused by the fact that there are two localities named Rockford that are cited. Rockford, Ind., is a locality with Kinderhookian (L. Mississippian) rocks outcropping; Rockford, Iowa, has the Lime Creek shales (Upper Devonian).

Pugnoides calvini Fenton and Fenton, 1925, *Contr. Mus. Geol.*, Univ. Michigan, vol. 1, p. 125, pl. 25, figs. 1-8.
Pugnax altus Calvin, 1898, *Iowa Geol. Survey*, vol. 7, p. 167, (listed only).

(3) *The species from the High Point beds of the Ithaca, as at High Point, New York.*

Rhynchonella pugnus Martin var. Williams, 1883, *American Jour. Science*, 3rd ser., vol. 25, p. 99.

Pugnax pugnus Martin, Hall and Clarke, 1894, *Nat. Hist. New York*, Paleont., vol. 8, pt. 2, pl. 60, figs. 6-10.

Rhynchonella pugnus Martin of authors, (listed only).

Pugnax pugnus (Martin) of authors (listed only).

(D)—PERSONAL OPINION OF G. MARSHALL KAY ON THE CASE OF
RHYNCHONELLA ALTA.

There can be no doubt that the name *Rhynchonella alta* Calvin, 1876, is a cheironym if it ever existed; it seems that there is no evidence showing that the name was even proposed in the paper that he read before the Iowa Academy. Nevertheless, the very name *alta* is evidence that he knew of its presence, for the other species are comparatively low-fold as compared with the very high-fold Lime Creek form. The statement of Williams (1) that "*Rhynchonella pugnus* Martin has not been recorded from the Lime Creek beds of Iowa" is evidence of that writer's ignorance of its presence, but Calvin probably knew of the presence of the form ten years earlier. The fact that Calvin does not record it in a list published in the same year as Williams' (2) is evidence that he considered it to be an undescribed species; the list was of fossils "as far as the species have been described."

The card photograph of 1878 does make the species recognizable if one has the card,⁴ but there is considerable question in my mind that it is "publication." There is no way of determining how many of the photographs were distributed; the key may have been printed on a hand press, and with the card, have been distributed to a few of Calvin's friends. It seems to me a *nomen nudum* "since authors who do not possess esoteric information in regard to it are unable definitely to interpret it without reference to later literature" (3). The very fact that Calvin in later writings consistently referred to the form as *Pugnax pugnus* would seem to indicate that he did not consider that he had published the name.

As to the publication of Williams, (4) there can be no doubt that he published a recognizable description of the New York form. His statement that specimens of the form from the State Quarry beds are identical with the Ithaca form means that he placed the Ithaca variety in the same species as the State Quarry form; and he then states that Calvin had described the Iowa form as *Rhynchonella alta*. The disposition of this problem is a question. It would seem that inasmuch as he considered the type locality to be Iowa, and he did not describe a specimen from Iowa, one can hardly make his New York form take the name. However, he lumped the two forms in one species, and then presumably described the species. This is a question that is open to debate.

As to the publication of Williams in 1890 (5), there can be no doubt of its validating the name, even though he does not seem to have selected the form that Calvin considered to be typical of his cheironym. That this was the case is evidenced in Calvin's faunal lists (6), where he consistently refuses to call the State Quarry form *P. altus*, but refers to it as *P. pugnus*; the Lime Creek form he always calls *P. altus*. Moreover, his own collections

⁴ See footnote 2.

bear labels consistent with this. However, it is probable that Calvin sent to Williams specimens from the State Quarry beds, inasmuch as the locality was very near to his home, and he may have lumped the two forms under the name *R. alia* until his later years. He evidently failed to admit that "A specific name, once published, cannot be rejected, even by its author, because of its inappropriateness" (7). Inasmuch as Calvin did not in publication disclaim Williams' crediting him with the name, it would seem that the name should be credited to him. The whole matter involves the question as to whether one can credit another with a species without the other scientist's sanction; in the absence of statements to the contrary, one has to assume that credit is correctly applied.

It is thus the opinion of the writer that the name of the species of the genus *Pugnoides* occurring in the State Quarry beds at Solon, Iowa, should be *Pugnoides altus* (Calvin) in Williams, 1890. The writer has rather strong convictions on the first and last points involved, but questions his own opinion on the publication of Williams of 1883.

References :

- (1) Williams, H. S. *American Jour. Science*, 3rd ser., vol. 25, 1883, p. 100.
- (2) Calvin, S. *American Jour. Science*, 3rd ser., vol. 25, 1883, p. 432.
- (3) Opinion 97, Intern. Comm. Zool. Nomencl.; *Smithsonian misc. Coll.*, vol. 73, no. 4, 1926, p. 19.
- (4) Williams, H. S. *American Journ. Science*, 3rd ser., vol. 23, ser., 1883, p. 99.
- (5) Williams, H. S. *Bull. geol. Soc. America*, vol. 1, 1890, p. 495, pl. 12, figs. 5-7.
- (6) Calvin, S. *Iowa geol. Survey*, vol. 7, 1898, p. 78 and p. 167.
- (7) International Rules of Zoological Nomenclature, Art. 32.

II.—THE "PHOTOGRAPHIC PLATES" DISTRIBUTED BY SAMUEL CALVIN.

3. Commissioner Stiles, in replying (on 10th August 1928) to Professor Marshall Kay's preliminary communication on this case, stated that he had examined one of Calvin's "author's separates" of his paper published in 1878 (*Bull. U.S. geol. geogr. Survey* 4: 725-730) ("Notes on Fossils from the Devonian Limestones at Independence, Iowa") in the library of the United States Geological Survey. Commissioner Stiles proceeded as follows:—

The separate I saw had a loose photographic plate without name of author, undated, without scientific name and with no possible clues as to its origin other than the fact that it was filed with the author's reprint. This is not publication in my opinion.

4. On the question of these photographs, Professor Marshall Kay stated in a letter dated 1st October 1928:—

I am enclosing in this letter two plates,⁵ one of which, the larger, is presumably ⁶ the one that you saw in the Geological Survey Office; it is the smaller one to which I referred. The plate of which I send you a photographic copy is the only one of its kind now known to exist. At the time that Thomas and Stainbrook wrote on the species of the genus in Iowa (1923, *Proc. Iowa Acad. Sci.* 29 : 93-99), this plate was known to exist only on this basis: Williams, but particularly Walcott (1884, *U.S. geol. Survey Monogr.* 8 : 156) mention *R. alta* Calvin in synonymy as based on a printed photographic plate; this plate could not have been the large one, one copy of which you have seen, for that plate does not have *R. alta* figured, as you will readily see by comparing the two photographic copies. Therefore Walcott and others must have been referring to the small card.

5. In response to an inquiry by Commissioner Stiles (dated 17th October 1928), Dr. Paul Bartsch, Curator of Mollusks and Cenozoic Invertebrates, United States National Museum, Washington, wrote (on 19th October 1928):—

The small photograph you sent bears at its edge "Recd. from Dr. T. [homas] H. [uston] Macbride." He was the Professor of Botany at the University of Iowa, and later its President. . . . Like Calvin, he was one of those most remarkable men that occur only about once in a century, whose stimulating influence had left a lasting impression upon the entire student mass that passed through his hands.

May I add that these plates recall my work in geology with Calvin, for plates of this kind were handed to his classes either as black prints or blue prints, and my notebook in geology, which I still have, is full of them. I made many such prints for him, from his negatives for my class use. This is how I learned my photography, and I am sure all of his older students have notebooks illustrated in the same manner.

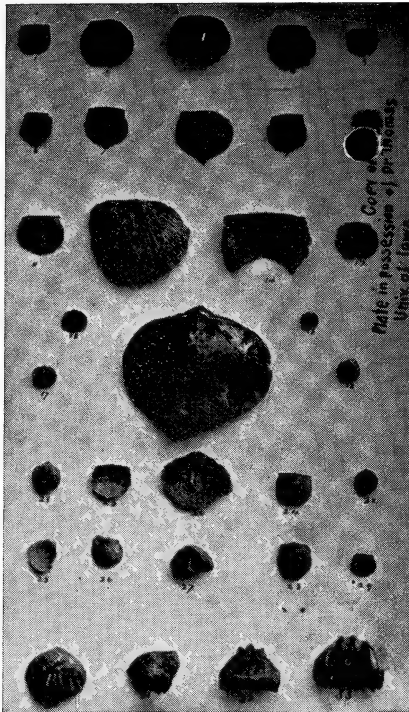
As much as I would like to see a lasting status given to the names ⁷ here mentioned because they are Calvinian, I am sorry that I must agree with you that they can only be considered as manuscript names and not as published material.

6. Both the "plates" furnished by Professor Marshall Kay were among the papers relating to this case at the time of the transfer of the Secretariat of the Commission to London, and, when in 1943 it became evident that the Commission would shortly render an *Opinion* on this case, arrangements were made for a

⁵ The larger of these "plates" consisted of a print of a photograph of 29 fossils gummed on to a stout piece of cardboard. The smaller of these "plates" consisted of a piece of cardboard on either side of which was pasted a print of a photograph; the first of these was a photograph of 33 fossils, the other was a photograph of a printed explanation of the first photograph. On the right-hand edge of the print of which the present example was a photograph, a later hand had written the legend: "Rec'd from Dr. T. H. Macbride June 13 1923."

⁶ In replying to Professor Marshall Kay (on 17th October 1928), Dr. Stiles wrote: "You are correct in the view that it was the larger plate that I saw at the Geological Survey. Referring to the smaller plate: personally I would not look upon this as a publication but would classify it as photographic manuscript."

⁷ The only unpublished name included in the "explanation" on the back of the smaller "plate" was *Rhynchonella alta*.

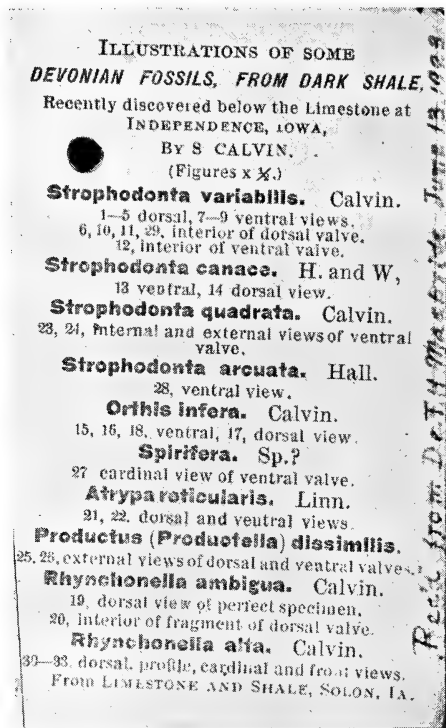


“ PHOTOGRAPHIC PLATE ” DISTRIBUTED BY SAMUEL CALVIN TO STUDENTS IN OR ABOUT 1878.

Facsimile (original size) of a photograph of 33 fossils pasted onto the upper surface of the piece of cardboard, which constitutes the “ photographic plate.”

NOTE :—It will be observed that, after deciding upon the way in which the fossils were to be arranged, Calvin wrote in very small figures upon the piece of paper used as a background the number allotted to each fossil. The fossils were then placed above (in some cases almost on top of) the numbers before the photograph was taken. In the course of years, some of these numbers have become so faint as to be difficult to decypher. The following key is accordingly given for convenience of reference :—

1	2	3	4	5
6	7	8	9	10
11	13	14	12	
	15		16	
17		19		18
21	23	20	24	22
25	26	27	28	29
30	31	32	33	



“PHOTOGRAPHIC PLATE” DISTRIBUTED BY SAMUEL CALVIN
TO STUDENTS IN OR ABOUT 1878.

Facsimile (original size) of printed note pasted onto the under surface of the piece of cardboard, which constitutes the “photographic plate,” giving the names of the fossils illustrated in the photograph pasted onto the upper surface of the “plate.”

The black circle which appears to the left of Calvin’s name in the title is due to the fact that at some date a hole has been punched through the reproduction of the “photographic plate,” in order to permit of its being strung on a file of connected documents. The same black circle intersects the reproduction of the fossil numbered “10” on the photographic print pasted onto the front of the “photographic plate” (see pl. 1).

block to be made reproducing the photographs pasted on either side of the smaller of the two "plates." The two photographs in question are accordingly reproduced on the plates (recto on Plate 1: verso on Plate 2) published with the present *Opinion*.

7. In his letter of 1st October 1928⁸ Professor Marshall Kay had made it clear that the "plates" which he then furnished to the Commission in explanation of his petition were not originals distributed by Calvin but were photographs of originals. He indicated also that the photograph of the smaller "plate" was taken from the only original copy distributed by Calvin known to be still extant. As it was clearly desirable that in their *Opinion* on this case the Commission should be in a position to record the name of the Institution in which the original of Calvin's plate was preserved, Commissioner Francis Hemming (*Secretary to the Commission*) wrote a letter on 5th October 1943 to Professor Marshall Kay asking if he could throw any light upon this matter. In his reply, dated 12th November 1943, Professor Marshall Kay stated, *inter alia* :—

I have learned from Professor M. A. Stainbrook, Texas Technological College, Lubbock, Texas, that he has the card that Calvin printed. This card was presented by Dr. McBride, an associate of Professor Calvin, to Professor A. O. Thomas. After the latter's death in 1931, collections that were transferred to Professor Stainbrook for study included the card. Professor Stainbrook writes on November 6th 1943: "I still have the Calvin collection here but will return them to the University [of Iowa] when I have finished the fauna."

8. At the same time the International Commission considered how the photographic copy of Calvin's "plate" from which the plates illustrating the present *Opinion* were prepared might best be made available for consultation by future students. Accordingly, after consultation with the Director of the United States Geological Survey, the International Commission decided to offer this "plate" to the United States National Museum. That offer was accepted by the Museum, which undertook to preserve the photograph in the files of the Department of Invertebrate Palaeontology, and thus to make it accessible to students, along with type specimens and other reference material.

III.—THE SUBSEQUENT HISTORY OF THE CASE.

9. On receiving the present application, Commissioner Stiles decided, as a first step, to ascertain whether a specimen regarded

⁸ See the passage from Professor Marshall Kay's letter of 1st October 1928 quoted in paragraph 4 above.

by Calvin as the type of what he considered to be *Rhynchonella alta* was preserved in the Calvin collection. Accordingly, on 19th April 1929 he wrote to Professor A. O. Thomas, Department of Geology, State University of Iowa, Iowa City, asking whether "among the specimens collected by Professor Calvin any particular specimen was labeled type." In his reply, dated 13th July 1929, Professor Thomas stated:—

I have very little to contribute, except to say that Dr. Calvin, to my best knowledge, did not specify a type for this species [i.e. *Rhynchonella alta*]. However, he labeled specimens under this name from Solon, from Independence, and also from Rockford. In my opinion, his original *alta* came from Rockford.

Calvin was a "lumper," rather than a "splitter," and he tried to make the name *alta* include things that are quite clearly different. It is difficult now to be certain, and especially to prove what he may have had in mind.

10. On receiving the foregoing information, Commissioner Stiles prepared a Circular Letter dealing with this case for circulation to the members of the Commission. Before furnishing copies of this Circular Letter to the Commission, Commissioner Stiles communicated a copy for observations to Professor Marshall Kay, the petitioner in this case. Professor Marshall Kay replied on 3rd December 1929, offering comments only on certain minor points of presentation.

11. At this stage, Commissioner Stiles forwarded the draft Circular Letter, together with Professor Marshall Kay's observations thereon, to Commissioner F. A. Bather for his observations. With his reply, dated 29th April 1930, Commissioner Bather enclosed the following memorandum setting out his views on this case:—

RHYNCHONELLA ALTA

I agree that Calvin's photographs were not publication. *R. alta* Calvin, 1876, seems to have no existence even as a cheironym.

R. alta Calvin, July 1878 (or perhaps later), exists only as a cheironym on an unpublished photograph.

Williams, 1883, was, strictly speaking, incorrect in stating that "In 1877 Calvin described under the name *Rhynchonella alta* a species from the Iowa beds." The description, or rather figure, dates, so far as the evidence goes, from 1878 rather than 1876 [as intercalated]; but it was not published and therefore was not entitled to citation as a "description."

The name *R. alta* was first published in Williams, 1883, and attributed to "a species from the Iowa beds." It may be inferred that Williams' reference to "the central portion of Iowa" includes the locality of *R. alta*, but this is not absolutely certain from the immediate context.

Williams, 1883, states that specimens of this *R. alta* "are identical with the variety of *R. pugnus* in the Ithaca beds." He proceeds to discuss only the Ithacan var. It is not clear to me that such a statement can count as a description of *R. alta*, especially as we are now told that *R. alta* is not

identical with the Ithacan var. Neither is it clear to me that Williams adopted the name *alta* for the Ithacan var. in 1883. I should say that Williams, 1883, merely advanced *R. alta* from the status of a M.S. name to that of a *nomen nudum*.

Williams, 1890, published the first description (i.e. figure) of *R. alta*, but appears not to have definitely accepted the name, since he used the curious expression "*Rhynchonella pugnus* var. called *R. alta* Calvin." Anyhow this for the first time makes *R. alta* precise, with a definite type-locality "Solon, Iowa."

If, as we are assured, the species from the Lime Creek beds is not the same as that from the State Quarry beds, then the practical results of my interpretation are the same as those of the Secretary.

I would alter the draft of point "2" to read—" *Rhynchonella alta* Williams ex Calvin dates from Williams, 1890, with the Iowa beds, Solon, Iowa, as type-horizon and locality."

12. The foregoing communication, together with the suggestions made by Professor Marshall Kay in his letter of 3rd December 1929,⁹ was thereon incorporated by Commissioner Stiles in the draft of the Circular Letter. In the Circular Letter, as communicated to the members of the Commission in May 1930, Commissioner Stiles:—

- (i) gave the text of three of the four documents submitted by Professor Marshall Kay;¹⁰
- (ii) gave the substance of the information received from:—
 - (a) Dr. Paul Bartsch regarding Calvin's habit of distributing photographs of specimens to his pupils;¹¹
 - (b) Professor A. O. Thomas regarding the material in the Calvin collection labelled "*Rhynchonella alta*" by Calvin;¹²
- (iii) described the two photographic "plates" distributed by Calvin,¹³ photographic copies of which had been furnished by Professor Marshall Kay¹³ and expressed the view:—
 - (a) that the smaller of the two "plates"¹⁴ i.e. that reproduced on Plates 1 and 2 of the present *Opinion* was "an example of a teacher's pedagogic technique and is not to be considered 'publication'"; and
 - (b) that the larger of the two "plates," a copy of which (he noted) was also attached to an author's separate of Calvin's 1878 paper¹⁵ preserved in the Library of the United States Geological Survey (although the photograph in question was not reproduced in Calvin's paper as published) was "merely an extension of Calvin's pedagogic technique and does not constitute publication";
- (iv) discussed the papers containing the name *Rhynchonella alta* published by Williams in 1883 and 1890, concluding that this name

⁹ See paragraph 10 above.

¹⁰ The documents here referred to are those quoted in paragraph 2 of the present *Opinion* as documents (B), (C), and (D).

¹¹ See paragraph 5 above.

¹² See paragraph 9 above.

¹³ See paragraph 4 above and footnote 5.

¹⁴ See paragraph 6 above and footnote 5.

¹⁵ See paragraph 3 above and footnotes 5 and 6.

- could be accepted as from the first of these papers, that Calvin and not Williams should be regarded as the author of this name and that "the Iowa beds," Solon, Iowa, should be regarded as the type locality;
- (v) drew attention to the view expressed by Commissioner Bather that in his paper of 1883 Williams "merely advanced *R. alta* from the status of a manuscript name to that of a '*nomen nudum*'"; that the name *Rhynchonella alta* was first published within the meaning of the Code by Williams in 1890, and that, on the question of authorship, the name should be attributed to "Williams *ex* Calvin";¹⁶
 - (vi) proposed that the present case should be settled at the Session of the International Commission due to be held at Padua three months later (i.e. in August 1930) and suggested that any Commissioner who did not expect to be present at the Padua Session should at once vote by post on the question whether the distribution of photographic prints (as by Calvin in the present case) constituted "publication" within the meaning of the Code and also on the question whether the name *Rhynchonella alta* should be attributed to Calvin as from Williams's paper published in 1883 (as recommended by Commissioner Stiles) or whether that name should be attributed to "Williams, *ex* Calvin" as from Williams's paper published in 1890 (as recommended by Commissioner Bather);
 - (vii) added that, if the majority of the Commissioners were to agree with Commissioner Bather rather than with himself on the second of the questions indicated in (vi) above, he would "gladly change his vote to agree with Commissioner Bather's view."

13. This question was accordingly considered by the International Commission at their meeting held at Padua on 30th August 1930 (Padua Session, 5th Meeting, Conclusion 3), when it was agreed that the case of *Rhynchonella alta* should be "tabled pending the discussion on 'publication.'" The last-named question was discussed at later meetings during the Padua Session but no final decision was reached thereon. Accordingly, no further progress was achieved during the Padua Session in regard to the case of *Rhynchonella alta*.

14. This case was reviewed by Commissioner Stiles in January 1931 in the light of the postal votes received from Commissioners. The position then was that seven (7) Commissioners (Bather, Chapman, Handlirsch, Ishikawa, Jordan (K.), Stejneger and Stone), in addition to Commissioner Stiles himself, had voted in favour of the proposition that the distribution of photographic prints with names attached thereto (such as the photographic print with the name *Rhynchonella alta* distributed by Calvin) did not constitute "publication" within the meaning of the Code. As regards the second of the two questions on which Commissioners had been asked to vote,¹⁷ five (5) Commissioners (Chapman,

¹⁶ See paragraph 11 above.

¹⁷ See paragraph 12(vi) above.

Handlirsch, Jordan (K.), Stejneger and Stone) had voted in favour of the view recommended by Commissioner Bather and one (1) Commissioner (Ishikawa) had voted in favour of the view recommended by Commissioner Stiles. In view of the foregoing, Commissioner Stiles made the following note on the papers relating to this case: "The Secretary [i.e. Commissioner Stiles himself] now changes his vote to concur with Commissioner Bather's opinion." Commissioner Stiles's alternative proposal was thereby withdrawn and the vote in the Commission on this case accordingly became unanimous.

15. Before proceeding to draft an *Opinion* setting out the view accepted by the eight (8) Commissioners who had so far voted on this case, Commissioner Stiles decided that it was desirable, if possible, to determine with certainty the meaning of the expression "the Ithaca beds" as used by Williams in his paper published in 1883, to which reference had been made by Commissioner Bather in his memorandum of 29th April 1930.¹⁸ On this point Dr. G. Arthur Cooper, United States National Museum, Washington, stated in a letter dated 21st February 1931:—

In Williams's paper of 1883 he appears to use the term "Ithaca" in the sense of a geographical and stratigraphical term. It is my belief that he refers to the horizon at Ithaca which is the equivalent of the High Point Sandstone. The Ithaca formation or member, a stratigraphical term, is far below the horizon of the High Point Sandstone.

16. No further progress was made before the Session of the International Commission held at Lisbon in September 1935, apart from a suggestion made by Commissioner Stiles in March of that year that this case should be dealt with by the Commission at their Lisbon Session. Unfortunately, this course was not found to be practicable, since, owing to the absence of Commissioner Stiles through ill-health, the papers relating to this case were not available at Lisbon for study by the Commission. The resignation by Commissioner Stiles of the Secretaryship of the Commission, which then took place, led to further delays, first during the period in which the election of his successor was taking place, and second owing to the need for the transfer of the records of the Commission consequent upon the establishment of the Secretariat of the Commission in London. This case had therefore not been brought to a conclusion when in September 1939 the outbreak of war in Europe led to the temporary suspension of the work of the Commission.

¹⁸ See paragraph 11 above.

17. When, however, circumstances made it possible in 1942 to reopen the Secretariat of the Commission and to resume work on outstanding applications, the case of *Rhynchonella alta* was reviewed by Commissioner Francis Hemming (*Secretary to the Commission*), who thereupon voted in the same sense as the eight (8) Commissioners referred to in paragraph 14 above. At the same time Commissioner Hemming addressed communications to all Commissioners who had not yet voted on this case and who were resident in countries at that time accessible by post. As the result of these communications four (4) additional Commissioners (do Amaral, Calman, Dymond, and Peters) had by 15th February 1944 voted in favour of the proposed decisions in this case.

18. When the position as regards this case was reviewed by the Secretary to the International Commission on 15th February 1944, the number of votes received from Commissioners already exceeded the number required to secure the adoption of the present *Opinion*, and accordingly the Secretary to the International Commission, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot on the issues raised in the case submitted by Professor Marshall Kay.

19. At their Session held in Lisbon in 1935 (Lisbon Session, 4th Meeting, Conclusion 15¹⁹), the International Commission agreed "that, when the Commission reached a decision of interest to the general body of zoologists, it was of the greatest importance that that decision should be presented in such a way as to ensure that it was most readily available to all concerned." When therefore on 15th February 1944²⁰ the International Commission reached decisions on the questions submitted by Professor Marshall Kay, it was decided that those decisions should be rendered in two *Opinions*, the first being concerned with the status of the name *Rhynchonella alta*, the second with the general question of principle settled by the decision taken on that case.

20. In accordance with the foregoing decision, the particulars relating to the status of the name *Rhynchonella alta*, together with the decision of the International Commission thereon, have been embodied in the present *Opinion*, while the decision of the Commission on the general question of principle settled at the same time as the decision on the above case has been embodied in *Opinion* 191.

¹⁹ See 1943, *Bull. zool. Nomencl.* 1: 40.

²⁰ See paragraph 18 above.

IV.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

21. The decision taken by the International Commission on Zoological Nomenclature in the present case is :—

- (1) that the name *Rhynchonella alta* as a name for a species of the Class Brachiopoda has no status as from the date in or about 1878 in which a printed note containing that name in explanation of a photograph attached thereto was distributed by Samuel Calvin to students attending his lectures or to colleagues or was attached by Calvin to separates of his paper published in 1878 entitled "Notes on Fossils from Devonian Limestones at Independence, Iowa" (Calvin, 1878, *Bull. U.S. geol. geogr. Survey* 4 (3) : 725-730), in which the name *Rhynchonella alta* did not appear;
- (2) that the name *Rhynchonella alta* was first published within the meaning of proviso (a) of Article 25 of the International Code by Williams (H. S.), in 1890 (*Bull. geol. Soc. America* 1 : 495 pl. 12 figs. 5-7);
- (3) that the name of the species referred to in (2) above is therefore *Rhynchonella alta* Williams (*ex* Calvin), 1890;
- (4) that the type-horizon and locality of this species is the "Iowa beds, Solon, Iowa."

22. The following thirteen (13) Commissioners voted in favour of the present *Opinion* :—

do Amaral; Bather; Calman; Chapman; Dymond; Handlirsch; Hemming; Ishikawa; Jordan (K.); Peters; Stejneger; Stiles; and Stone.

23. No Commissioner voted against the present *Opinion*.

24. The following four (4) Commissioners did not vote on the present *Opinion* :—Cabrera; Esaki; Pellegrin; and Richter. In addition four (4) Commissioners (Arndt, di Caporiacco, Hankó, and Jaczewski), who were elected members of the Commission during the concluding stages of the present case, did not take part in its consideration.

25. During the discussion of the present case, three (3) Commissioners (Fantham, Jordan (D. S.), Stephenson) died, and

five (5) Commissioners (Apstein, Bolivar y Pieltain, Horváth, Silvestri and Warren) resigned, without having recorded their votes.

V.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the By-Laws of the International Commission on Zoological Nomenclature provide that, except in cases involving the suspension of the rules, an *Opinion* is to be deemed to have been adopted by the said International Commission as soon as a majority of the Members of the Commission, that is to say ten (10) Members of the said Commission, have recorded their votes in favour thereof, provided that, where any proposed *Opinion* involves a reversal of any former *Opinion* rendered by the Commission, such proposed *Opinion* shall obtain the concurrence of at least fourteen Members of the Commission voting on the same before such *Opinion* is to be deemed to have been adopted by the Commission; and

WHEREAS the present *Opinion* as set out in the summary thereof, neither requires, in order to be valid, the suspension of the rules, nor involves a reversal of any former *Opinion* rendered by the Commission; and

WHEREAS thirteen (13) Members of the Commission have signified their concurrence in the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Ninety (*Opinion* 190) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this twentieth day of November, Nineteen Hundred and Forty Four, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

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Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-11 (containing *Opinions* 182-192) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £969 16s. 1*d.* were received up to 30th June 1945. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

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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 3. Part 10. Pp. 129-136.

OPINION 191

On the question whether the use of a new name in explanation of a photograph or other illustration distributed by an author to students or colleagues constitutes "publication" within the meaning of proviso (a) to Article 25 of the International Code

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Personal address of the Secretary :

83, Fellows Road (Garden Flat), London, N.W. 3.

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MUSEUM

ef.

OPINION 191.

ON THE QUESTION WHETHER THE USE OF A NEW NAME IN EXPLANATION OF A PHOTOGRAPH OR OTHER ILLUSTRATION DISTRIBUTED BY AN AUTHOR TO STUDENTS OR COLLEAGUES CONSTITUTES " PUBLICATION " WITHIN THE MEANING OF PROVISO (a) TO ARTICLE 25 OF THE INTERNATIONAL CODE.

SUMMARY.—The use of a new name in a note (whether printed or otherwise) in explanation of a photograph or other illustration of an organism does not constitute publication within the meaning of proviso (a) of Article 25 of the International Code, where the author concerned does no more than distribute copies of the explanatory note and of the photograph or other illustration (i) to students attending his lectures or (ii) to his colleagues or (iii) than attach copies of the note and of the photograph or other illustration when distributing separates of a paper dealing with the subject but not containing the new name in question.

I.—THE STATEMENT OF THE CASE.

The question whether the use of a new name in explanation of a photograph or other illustration distributed by an author to his students or to colleagues (either (i) with copies of separates of a paper dealing with the subject but not containing the new name in question or (ii) otherwise) constitutes publication within the meaning of proviso (a) to Article 25 of the International Code was placed before the International Commission on Zoological Nomenclature on 20th February, 1929, by Professor G. Marshall Kay, Columbia University in the City of New York.

2. The particular case with which Professor Marshall Kay was then concerned was the name *Rhynchonella alta* which had been used by Samuel Calvin for a species of the Class Brachiopoda in a printed list of names pasted on to a piece of cardboard on the other side of which was a photograph of a number of fossils, to which numbers had been affixed and to one of which the name *Rhynchonella alta* was applied.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

3. At their Session held in Lisbon in 1935 (Lisbon Session, 4th Meeting, Conclusion 15¹) the International Commission agreed

¹ See 1943, *Bull. zool. Nomencl.* 1 : 40.

“ that, when the Commission reached a decision of interest to the general body of zoologists, it was of the greatest importance that that decision should be presented in such a way as to ensure that it was most readily available to all concerned.” When therefore on 15th February 1944 the International Commission reached decisions on the questions submitted by Professor Marshall Kay, it was decided that those decisions should be rendered in two *Opinions*, the first being concerned with the particular case of *Rhynchonella alta*,² the second with general principle settled by the decision taken on that case.

4. In accordance with the foregoing decision, the particulars relating to the case of *Rhynchonella alta*, together with the decision of the International Commission thereon, has been embodied in *Opinion* 190.³ In the same *Opinion*, plates are given illustrating the photographs pasted on to the piece of cardboard which was distributed by Samuel Calvin, on which appeared the name *Rhynchonella alta*.

5. The present *Opinion* is concerned therefore solely with the question of principle raised by the case submitted by Professor Marshall Kay.

6. As explained in paragraphs 1 and 2 above, the vote on the interpretation of proviso (a) to Article 25 in relation to the question whether the use of new names in explanation of photographs, etc., distributed by authors to students or colleagues constitutes “ publication ” was taken concurrently with the vote on the question of the status of the name *Rhynchonella alta* as used by Calvin in or about 1878 in explanation of a photograph of a fossil brachiopod distributed by him to his students. A decision on either of these cases necessarily involved a decision on the other. When therefore on 15th February 1944, the Secretary to the Commission, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot on the case of *Rhynchonella alta*,³ he closed also the ballot on the present case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

7. The decision taken by the International Commission on Zoological Nomenclature in the present case is :—

² See *Opinion* 190 (1945, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 3 : 109-128).

³ See footnote 2.

that the use of a new name in a note (whether printed or otherwise) in explanation of a photograph or other illustration of an organism does not constitute publication within the meaning of proviso (a) of Article 25 of the International Code, where the author concerned does no more than distribute copies of the explanatory note and of the photograph or other illustration (i) to students attending his lectures or (ii) to his colleagues or (iii) than attach copies of the note and of the photograph or other illustration when distributing separates of a paper dealing with the subject but not containing the new name in question.

8. The following thirteen (13) Commissioners voted in favour of the present *Opinion* :—

do Amaral; Bather; Calman; Chapman; Dymond; Handlirsch; Hemming; Ishikawa; Jordan (K.); Peters; Stejneger; Stiles; and Stone.

9. No Commissioner voted against the present *Opinion*.

10. The following four (4) Commissioners did not vote on the present *Opinion* :—Cabrera; Esaki; Pellegrin; and Richter. In addition four (4) Commissioners (Arndt, di Caporiacco, Hankó, and Jaczewski), who were elected members of the Commission during the concluding stages of the present case, did not take part in its consideration.

11. During the discussion of the present case, three (3) Commissioners (Fantham, Jordan (D. S.), Stephenson) died, and five (5) Commissioners (Apstein, Bolivar y Pieltain, Horváth, Silvestri and Warren) resigned, without having recorded their votes.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the By-Laws of the International Commission on Zoological Nomenclature provide that, except in cases involving the suspension of the rules, an *Opinion* is to be deemed to have been adopted by the said International Commission as soon as a majority of the Members of the Commission, that is to say ten (10) Members of the said Commission, have recorded their votes in favour thereof, provided that, where any proposed *Opinion* involves a reversal of any former *Opinion* rendered by the Commission, such proposed *Opinion* shall obtain the concurrence of at

least fourteen Members of the Commission voting on the same before such *Opinion* is to be deemed to have been adopted by the Commission; and

WHEREAS the present *Opinion*, as set out in the summary thereof, neither requires, in order to be valid, the suspension of the rules, nor involves a reversal of any former *Opinion* rendered by the Commission; and

WHEREAS thirteen (13) Members of the Commission have signified their concurrence in the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Ninety One (*Opinion* 191) of the said Commission.

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ZOOLOGICAL NOMENCLATURE**

Edited by

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

Secretary to the Commission

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OPINION 192

Suspension of the rules for *Nummulites* Lamarck,
1801 (Class Rhizopoda, Order Foraminifera)

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OPINION 192.

SUSPENSION OF THE RULES FOR *NUMMULITES* LAMARCK, 1801 (CLASS RHIZOPODA, ORDER FORAMINIFERA).

SUMMARY.—Under suspension of the rules (i) the name *Camerina* Brugière, 1789, is hereby suppressed for all purposes other than Article 34 of the International Code and (ii) the name *Nummulites* Lamarck, 1801 (Class Rhizopoda, Order Foraminifera) is validated with *Camerina laevigata* Brugière, 1789, as type. The name *Nummulites* Lamarck, 1801, so validated, is hereby added to the *Official List of Generic Names in Zoology* as Name No. 623.

I.—THE STATEMENT OF THE CASE.

This case, together with that of the names *Lepidocyclina* Gümbel, [1879],¹ and *Cyclosiphon* Ehrenberg, 1856, was submitted to the International Commission on Zoological Nomenclature by Commissioner Frederick Chapman, Commonwealth Palaeontologist, National Museum, Melbourne, Australia, in the following letter dated 12th December 1928:—

I would like to propose the suspension of the rule of priority on account of two well-known genera—*Lepidocyclina* and *Nummulites*. They have lately been superseded by J. J. Galloway and J. A. Cushman respectively. The changes they propose would be against the best interests of rational nomenclature.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. On receipt of the foregoing application, Dr. C. W. Stiles, Secretary to the International Commission, decided as a first step to consult certain specialists interested in this case either directly from the point of view of systematic zoology or indirectly from that of geological surveying. The replies in most instances covered not only the present case but also the case of *Lepidocyclina* Gümbel and *Cyclosiphon* Ehrenberg. The replies received

¹ In *Opinion 127* dealing with the name *Lepidocyclina* Gümbel, the date of publication of that name was given as 1868, the year of the volume of the *Abh. bayer. Akad. Wiss.*, in which that name was published. It has since been ascertained that the portion of that volume containing this name was not published until 1870 (see 1943, *Bull. zool. Nomencl.* 1: 9).

in respect of the last-named case are quoted in full in *Opinion 127* relating to that case, together with the replies which related both to that case and to the present case. So much as is necessary of the latter replies is quoted below, together with one communication which referred only to the present case :—

- (a) *Comment by Dr. Edward Willard Berry, Assistant State Geologist, Maryland Geological Survey, Johns Hopkins University, Baltimore, Md., dated 6th February 1929.*

I understand that there is pending before the International Commission on Zoological Nomenclature the decision whether to retain the generic use of *Nummulites* and *Lepidocyclus*. I wish to go on record as being in favor of retaining these two genera in the classification.

- (b) *Comment by Dr. George Otis Smith, Director of the U.S. Geological Survey, Washington, D.C., dated 11th February 1929.*

The proposition for suspension of the rules in zoological nomenclature for the purpose of retaining the two generic names *Lepidocyclus* and *Nummulites* has been considered by all the Geological Survey palaeontologists now in Washington whose work involves the use of zoological names. While the workers of this group subscribe to the rule of priority for general use they are unanimous in their recommendation that the rule should be suspended in its application to the two names above mentioned so that they may be continued in use.

Enclosures to the letter received from Dr. George Otis Smith

- (i) *Comment by L. W. Stephenson*

In the case of a generic name which has been in long and general usage there seems nothing to be lost and much to be gained by retaining it, even though some one may discover that an older, practically unknown name has priority over it. I therefore recommend that *Nummulites* and *Lepidocyclus* be given validity by the International Commission. I feel, however, that exceptions should be made only in extreme cases such as the ones here presented.

- (ii) *Comment by T. W. Stanton*

I concur in the above statement.

- (iii) *Comment by Edwin Kirk, C. Wythe Cooke, W. C. Mansfield, and Chas. Butts*

Concur.

- (iv) *Comment by George H. Girty*

Agreed, both as to making exceptions only in extreme cases and as applied here to *Nummulites* and *Lepidocyclus*.

- (v) *Comment by John B. Reeside, Jr. (dated 25th January 1929)*

I believe that the substitution of *Camerina*, almost entirely unused and unknown, for *Nummulites*, extensively used for over a century, is a useless bit of hair-splitting legal procedure. It will lead to more confusion than clarity. . . . I can see no profit whatever in going back into the literature of the dim past to dig up names that have only the legal show of validity and using them to replace widely used and well understood terms. Let us keep *Nummulites* . . .

- (vi) *Comment by P. V. Roundy (dated 5th February 1929)*

I agree with the above statement.

(vii) *Comment by Chas. Butts* on note by John B. Reeside Jr., (see also (iii) above)
Amen and again Amen.

(viii) *Comment by E. O. Ulrich* (dated 29th January 1929)

In cases in which the confusion arising from the resurrection of an older name is obviously to the disadvantage of the science, especially as in the case under consideration in which no good save the questionably earned rights to Ehrenberg [in the case of *Cyclo-siphon*] and Brugière [in the case of *Camerina*] appear to offset the ill it would do the science, I am opposed to replacing a well known and generally used name by an older one that never attained common usage. Therefore I am in favor of retaining *Lepidocyclina* and *Nummulites*.

(c) *Comment by Dr. Joseph A. Cushman, Cushman Laboratory for Foraminiferal Research, Sharon, Mass., U.S.A. (forwarded under cover of a letter dated 27th May 1929).*

Camerina—Nummulites

Camerina Brugière, 1792

See Brugière, *Encyclopedie Méthodique, Histoire naturelle des Vers*, Paris, 1792, pp. 395-400.

Brugière names four species under the genus, of which the first (p. 399), *Camerina laevigata* Brugière, should be taken as the genotype.²

The species *Camerina laevigata* Brugière is definitely named and described at length with numerous references to previous figures. Numerous localities are given.

Camerina laevigata is figured by Héricart de Thury, *Journ. Depart. Oise*, Ann. VIII, 1800, p. 83, pl., figs. 1. a-g, 4, 5.³

Nummulites laevigata Lamarck, *Syst. Anim. sans Vert. &c.*, 1801, p. 101, given below " *Nummulites laevigata* Br." and at the end of the synonymy " *Camerina* Br." He uses Brugière's specific name, and places the earlier genus *Camerina* as a synonym under his *Nummulites*.

Nummulites laevigata Lamarck, *Ann. Mus.* 1804, 5 : 241, notes " *Camerine* lisse, Brug. No. 1 " and elsewhere in this paper refers to other species of Brugière and to his remarks on *Camerina*.

The species " *Nummulites laevigata* Lamarck " is referred to and used as a good species, but should be credited to Brugière and not to Lamarck. Lamarck recognized *Camerina* as a synonym of his *Nummulites*, but like many early authors preferred for some reason to give a new name rather than recognize the earlier generic name of Brugière. In like manner, d'Orbigny in 1826, *Ann. Sci. nat.* 1826, 7 : 295, gave a new generic name *Nummulina* and gives as the first species " *Nummulina laevigata* " credited to Lamarck, placing in the synonymy " *Nummulites laevigata* Lamarck " with references.

² When later Dr. Stiles circulated this communication to the members of the Commission (see paragraph 3 below), he drew attention to the fact that *Camerina laevigata* Brugière is not the type of *Camerina* Brugière by original designation.

³ As Dr. Stiles was unable to obtain a copy of this work in Washington, he applied for further assistance to Dr. Cushman, who replied (3rd July 1929) : " Sherborn says in his Bibliography : ' Not seen : This Journal is extremely rare : Particulars of the paper will be found in d'Archiac and Haime.' He refers to Archiac and Haime, *Description des Animaux fossiles du groupe nummulitique de l'Inde, précède d'un résumé géologique et d'une Monographie des Nummulites*. 2 vols. 4to. Paris, 1, 1853 : 2, 1854. 373 pp., 36 plates. I have not seen the first work and do not know that it can be obtained in America. If Sherborn did not see it, that is sure proof that it is very rare."

Of very definite importance in this connection is the review of this whole problem of *Camerina* Brugière, *Nummulites* Lamarck and *Nummulina* d'Orbigny by Meek and Hayden in *Smithsonian Contributions to Knowledge*, 172, 1864, *Palaeontology of the Upper Missouri*, where on pp. 11-13 they discuss older names. They propose there the family name CAMERINIDAE. They also give very good and sound reasons for using priority there. *Camerina* was evidently used by Cuvier, 1798, and Lamarck, 1799 with *laevigata* Brugière before the name *Nummulites* was even proposed. It seems a clear case that there is no standing according to the rules for either *Nummulites* or *Nummulina*. If the rules are to be set aside so that *Nummulites* based on the genotype of *Camerina* will take its place, I see no particular use of the rules at all. If it were an obscure case as in *Lepidocyclina* and *Cyclosiphon* there might be some justification in retaining the later name, but there is nothing but a very clear case. It simmers down to whether or not the rules shall be suspended to conserve names from length of usage alone.

It may be said in this connection that the older "*Nummulites*" has been split into numerous other genera at the present time, and the original name covers only a part of the older generic concept at best. The change to the older *Camerina* is therefore not so radical as might be thought by those whose unfamiliarity with the group probably makes them suppose that the whole group is still called "*Nummulites*." I favor the use of the rules and the preservation of *Camerina* Brugière as advocated by Meek and Hayden in 1864 as noted above.

3. The petition in this case, together with the comments thereon quoted in paragraph 2 above, was communicated to the members of the Commission by Dr. Stiles in August 1929. To these data, Dr. Stiles added the following note prepared by himself:—

The essential bibliographic data in the case of *Nummulites* as verified by the Secretary are as follows:—

Camerina Brugière, 1792, *Encyc. méth. Hist. nat. Vers*, v. 1, 395-400. No indication ("rigidly construed") of type species but in the discussion of the first species (*Camerina laevigata*) is found the statement "Cette espèce est la plus commune de toutes et la plus généralement répandue" (cf. Art. 30. h.j.n.); and in the synonymy of the second species (*C. striata*) is found the statement "elle est de celles qui portent communément le nom de pierres lenticulaires" (cf. Art. 30.n.). The third species (*C. tuberculata*) is described by comparison with the first and second (cf. Art. 30.r.), and the statement is made that Guettard seems to have considered it only a variety. The name of the fourth species (*C. nummularis*) is obviously based upon one of the vernacular names, "pierre numismale."

Nummulites Lamarck, 1801, *Syst. Anim. sans Vert.*, 101, mt.⁴ *Nummulites laevigata*, quotes *Camerina* Brug. as a synonym. From this paper alone the evidence is not quite clear whether Lamarck deliberately renames *Camerina* or whether he simply eliminates⁵ *laevigata* from the genus *Camerina* to *Nummulites*.

Lamarck, 1804, *Ann. Mus. nat. Hist. nat.*, v. 5, 237-242, cites under

⁴ The expression "Mt." here placed in front of the name *Nummulites laevigata* signifies that that was the only species cited by Lamarck and therefore that the genus *Nummulites* Lamarck is monotypical.

⁵ The word "eliminate" as here used has the same significance as though the word "transfer" had here been used, as it is in fact so used in the two succeeding paragraphs.

Nummulites four species, i.e., 1. *laevigata*, 2. *globularia*, 3. *scabra* (? = synonym of *Camerina tuberculata*), 4. *complanata* (= *Camerina nummularia* renamed). It is obvious that at least two of the original species (*laevigata* and *nummularia*) have now been transferred to *Nummulites*; the transfer of *tuberculata* appears probable. It is not clear to the Secretary that *globularia* is intended as a synonym of *striata*. (The species *striata* was transferred to *Nummulites* by d'Orbigny, 1850, v. 2, 406; *globularia* is syn. of *laevigata*, *fide* d'Archiac & Haime, 1853, 103).

Lamarck, 1822, *Hist. nat. Anim. sans Vert.* vol. 7, pp. 627-630, makes it clear that his genus *Nummulites* is *Camerina* renamed and he quotes the same four species which he quoted in 1804; *laevigata*, *scabra*, and *complanata* retain the same status as in 1804, while it still remains apparently impossible to identify Brugière's second species (*globularia*) with *striata*. Accordingly the Secretary has no evidence that *striata* was transferred by Lamarck to *Nummulites*. The Secretary inclines to the view that *Nummulites* is *Camerina* renamed and since *laevigata* is monotype of *Nummulites* it becomes type of *Camerina* under Art. 30.f.

It is furthermore to be noticed that later authors have interpreted *Nummulites* as a direct renaming of *Camerina* and the Secretary is not inclined to contest this interpretation. For instance, Deshayes, 1830, *Encyc. méth. Hist. nat. Vers.* vol. 2, p. 178, states definitely that *Nummulites* is *Camerina* renamed.

D'Orbigny, 1826, deliberately renamed *Nummulites* as *Nummulina* on the ground that living species as well as fossils had become known, while the name *Nummulites* was based upon the premise (cf. Lamarck, 1804) that all known species of the genus were fossils. Thus, *laevigata* is by renaming (Art. 30.f.) the type of *Nummulina* and the latter is an objective synonym of *Nummulites*.

While authors generally have adopted *Nummulites* instead of *Camerina*, Meek & Hayden, 1864, *Smiths. Contr. to Knowl.*, no. 172, pp. 11-13 discussed the synonymy and history of the generic names and gave preference to *Camerina* on which they based the family name CAMERINIDAE.

Commissioner Apstein (1913, *Nom. conservanda* : 121)⁶ recommended the acceptance of *Nummulites*, but did not cite a type species.

4. Dr. Stiles added also the following general observations on the problems raised by the present case :—

The Secretary would suggest that, since this case is of such interest and importance to geologists and palaeontologists, it would be well if the Commissioners would find it convenient to consult specialists in these fields in their own countries prior to their formulation of final opinion.

So far as the Secretary understands the case at present, this is a clear case of Law of Priority—but without transfer of names to type species not originally included under the generic name. Therefore it is quite different from cases like *Trichecus* versus *Manatus* (*Opinion* 112), from *Holothuria* (*Opinion* 80), and *Simia* (*Opinion* 114); but it appears to the Secretary to be a case which involves the broad question of economics as applied to nomenclature; i.e. when a name is in general use, especially in fields other than strictly zoological, a change of name on basis of the Law of Priority places allied subjects (as geology, medicine, law) at a disadvantage and involves an actual financial loss as expressed in time, publication, records, etc. resulting in confusion. At the present day when because of the world's economic condition science finds itself at a distinct financial disadvantage

⁶ The paper by Commissioner Apstein here referred to is that which forms the subject of *Opinion* 74.

it would appear to the Secretary that the question of confusion becomes doubly important.

At the same time, the first two sentences in the final paragraph in the statement of Dr. Cushman appear to the Secretary to be very important.

5. On 5th November 1929 Commissioner Chapman addressed a further letter to the Commission, with which he transmitted the following note setting out the views on this case expressed by other workers and specialists in Australia :—⁷

(a) *Comment by Professor Walter Howchin, F.G.S., Hon. Prof. Emeritus, Geology and Palaeontology in the University of Adelaide*

I am heartily in accord with you for the retention of the generic names *Nummulites* and *Lepidocyclina*. These names have become so thoroughly incorporated in the literature of Foraminifera that their substitution would involve serious inconvenience and confusion, priority notwithstanding. I hope that the exceptions you suggest will be agreed to.

(b) *Comment by W. J. Parr, F.R.M.S., State Treasury, Victoria (co-author on Foraminifera of the Mawson Expedition)*

I think that the genera *Nummulites* Lamarck and *Lepidocyclina* Gümbel should be retained as *nomina conservanda* in place of the earlier *Camerina* Brugière and *Cyclosiphon* Ehrenberg.

I am generally opposed to the suspension of the rules, but unlike the other Foraminifera genera which have been superseded recently, *Lepidocyclina* and *Nummulites* have been much used in general geological literature and a change to the older genera would certainly lead to much confusion which it is desirable to avoid.

(c) *Comment by Robert A. Keble, F.G.S., Palaeontologist, National Museum and Geological Survey of Victoria*

I am in thorough agreement with the retention of *Nummulites* and *Lepidocyclina*. By doing so the literature becomes intelligible at a glance and unconfused by the rules of nomenclature. Expressed in terms of time saved, such has a true economic value; confusion and uncertainty must obviously accompany a reversion to the strict order of priority.

There remains, then, the question of sentiment. Brugière and Ehrenberg, the aggrieved authorities, have long passed away, but there is no question of depriving them of their priority. These unselfish pioneers would not have condoned for a moment the waste of time and confusion that would ensue in establishing their presumed right to priority.

(d) *Comment by Miss Irene Crespín, B.A., Assistant Palaeontologist, Commonwealth of Australia, National Museum, Melbourne*

As far as the two genera, *Nummulites* and *Lepidocyclina*, are concerned, I would emphatically support the retention of these names by a suspension of the rules.

⁷ For the reasons explained in paragraph 2 of the present *Opinion*, the case of *Nummulites* Lamarck versus *Camerina* Brugière was in its early stages considered by the Commission concurrently with that of *Lepidocyclina* Gümbel versus *Cyclosiphon* Ehrenberg. Hence the references to both these cases in the document here quoted.

(e) *Comment by A. C. Collins, Public Works Department, Melbourne
(a student of the Victorian Tertiary Foraminifera)*

I should like to express my personal opinion that the generic names *Lepidocyclina* Gumbel and *Nummulites* Lamarck should be retained in preference to earlier names. As these names are so widely used in stratigraphic references, their alteration would, I think, create confusion amongst non-specialists in the group, and I see no useful purpose to be served (in these cases) by the rigid application of the rules of nomenclature.

(f) *Comment by Fredk. A. Singleton, M.Sc., Lecturer on Agricultural
Geology and Curator of the Geological Museum, Melbourne
University*

My formal opinion concerning *Nummulites* and *Lepidocyclina* is that both should be placed on the official list of *nomina conservanda* and it is impossible to reject one and not the other, *Cyclosiphon* having stronger claims than *Camerina*.

6. In February 1931 Dr. Stiles reported to the Commission that ten (10) Commissioners had recorded their votes on this case in response to the invitation contained in the document which in August 1929 he had circulated to the members of the Commission (paragraphs 3 and 4 above). Seven (7) Commissioners (Apstein, Bather, Chapman, Handlirsch, Horváth, Silvestri and Warren) had voted in favour of the suspension of the rules to preserve *Nummulites* Lamarck; three (3) Commissioners (Jordan, Stephenson and Stone) had voted against that course. Two only of the Commissioners concerned had furnished statements setting out the grounds on which they based their position. These statements were as follows:—

(a) *Statement by Commissioner F. A. Bather (with his affirmative vote):*

I could wish that the rules might take their course, if only *Nummulites* could be retained somewhere in the system, as a group name or as an omnibus name; such as *Ammonites*. Thus the textbook use and the geological use, e.g. *Nummuliten Kalk*, would remain. If Dr. Cushman had given the facts in his final paragraph, he might have strengthened his position. The facts, as supplied by Prof. Morley Davies, incline me to accept the view of the majority. Mr. Wrigley, who is working on the Eocene of England, and Mr. Heron-Allen, an authority on the Foraminifera, would suspend the rules to avoid confusion. Mr. C. P. Chatwin, a palaeontologist of the Geological Survey, agrees with Dr. Cushman's final paragraph, and would keep to the rules.

(b) *Statement by Commissioner Witmer Stone (with his negative vote):*

The privilege of asking for a suspension of the rules is in danger of being abused. I should advocate it only in cases (1) that are so involved that

various interpretations are possible or (2) that seriously affect fields and activities outside of pure zoological nomenclature. With too much leniency, our whole system will become utterly inconsistent. I regard Dr. Cushman's point of great importance. In ornithology it would appear to be a very serious matter to overthrow or change the application of the Linnean genus *Picus* but as a matter of fact there is, I believe, only one woodpecker left in that genus today.

7. Up to this stage Dr. Stiles himself had not voted on this case, but now in the hope of bringing the matter to a definite issue, he ranged himself with those who favoured the suspension of the rules for *Nummulites* Lamarck and brought forward a formal motion that the Commission should render an *Opinion* in that sense.

8. One of the authorities whom Dr. Stiles had consulted on first receiving the application in the present case was Dr. T. Wayland Vaughan, Director, the Scripps Institution of Oceanography of the University of California. At that time Dr. Wayland Vaughan had been away from the United States but on his return he wrote to Dr. Stiles a letter dated 10th May 1933 in which he stated: "Personally I should have preferred to use *Camerina*, but I recognize the strength of the argument for *Nummulites*. Therefore, I do not feel inclined to protest against the decision in favor of *Nummulites*." In a further letter dated 20th June 1933, Dr. Wayland Vaughan said: "Personally I should have preferred to follow the rules and adopt *Camerina* but I think that no confusion will result if *Nummulites* is adopted. It is a matter on which I have very little feeling and will gladly abide by the decision no matter which name it [i.e. the Commission] may favor."

9. In March 1935 Dr. Stiles notified the members of the Commission that three further Commissioners had now voted on this case: two (2) Commissioners (Ishikawa and Pellegrin) had voted in favour of the suspension of the rules for *Nummulites* Lamarck; one (1) Commissioner (Cabrera) had voted against that course. With his negative vote Commissioner Cabrera had furnished the following statement of his views:

I cannot see the reason why we must suspend the priority law for a genus of Foraminifera because geologists use such name more commonly than such other, and we do not do the same for genera of other groups because of frequent use of such or such name by other people. If we retain *Nummulites* because it has been employed for many years in books of Geology and Palaeontology, we must use in animals *Dicotyles* because during many years it has been used in text books and in books on travel, geography, zoogeography and sport. Audubon, De Kay, Burmeister, Rengger, Lydekker, Brehm and many other authors made *Dicotyles* a well known name for the peccaries, but, on priority grounds, this name has been rightly rejected. It is the same with *Semnopithecus*, *Chiromys*, and

many other names; also in birds, reptiles, etc. We must face in all these cases the old problem; use versus priority. Now, priority is one of the more solid bases of our present code of nomenclature. Of course it displeased many people, but laws are never made to please everybody. If we suspend the rules for *Nummulites*, we open a door for constant transgression of law, as many other names in Palaeontology are in the same position; and if we do so for fossil genera, the same thing must be done for living genera. The next step will be to go back to the days before the rules, when every one did as pleased him. The wisest words about this matter are those of Witmer Stone when he says: "The privilege of asking for a suspension of the rules is in danger of being abused,"⁸ and those of Cushman when he tells: "If the rules are to be set aside so that *Nummulites* based on the genotype of *Camerina* will take its place, I see no particular use of the rules at all."⁹

The case of *Lepidocyclus*¹⁰ is very different, the true meaning of *Cyclosiphon* being not clear, and this name being based on a specimen not well identified, as it appears from the opinion of specialists. But for *Camerina* and *Nummulites*, there is not any doubt that they are synonyms, with the same type species, and that *Camerina* is the oldest by nine years. It is said that the use of *Nummulites* saves time; well, I think more saving of time is attained by following strictly the rule of priority, than by searching arguments to avoid it.

10. In the report referred to above, Dr. Stiles added that the case was referred "for further routine to the Commission for such action as may be necessary or advisable at the Lisbon meeting" due to be held later that year.

11. At the Lisbon Session of the International Commission, the available documents relating to this case were examined by Commissioner Francis Hemming, who, jointly with Commissioner James L. Peters, had been charged with the duty of acting as Secretary to the Commission during that Session, owing to the absence through ill-health of Dr. Stiles. The conclusions so reached by Commissioner Hemming are set out in the following note made in the records of the Commission:—

As submitted by Commissioner Chapman, this case raises only a single issue, namely whether the strict application of the rules in relation to the names *Camerina* Brugière and *Nummulites* Lamarck would clearly result in greater confusion than uniformity. In the course of the discussion of this question, Commissioners Witmer Stone and Cabrera have raised the wider issue of the circumstances in which the International Commission should grant or withhold their approval of proposals submitted to the Commission for the suspension of the rules in certain cases. It is necessary, therefore, to consider this latter question also.

2. The conclusions which I have reached after a study of the documents in this case are as follows:—

(A) *On the merits of the case viewed purely as a problem in the nomenclature of the Order Foraminifera.*

(i) *Camerina* Brugière, 1789, is an available name in the sense that it is not a homonym of an earlier identical generic name.

⁸ See paragraph 6(b) above.

⁹ See paragraph 2(c) above.

¹⁰ See *Opinion* 127.

- (ii) *Nummulites* Lamarck, 1801, is also an available name in the sense that it is not a homonym of an earlier identical generic name.
 - (iii) Brugière placed a number of species in *Camerina* Brugière and did not designate a type for that genus. There is no evidence in the papers that any subsequent author selected in the rigidly construed sense required by Article 30 of the Code either *Camerina laevigata* Brugière, 1789, or any of the other originally-included species to be the type of the genus *Camerina* Brugière.
 - (iv) If *Nummulites* Lamarck was proposed as a new genus (and not merely as a nom.nov. for *Camerina* Brugière), it is a monotypical genus with *Camerina laevigata* Brugière as its type.
 - (v) It appears, however, that many authorities have taken the view that Lamarck published the name *Nummulites* as a nom.nov. pro *Camerina* Brugière. If this is the case, the citation of a single species (*C. laevigata* Brugière) under *Nummulites* by Lamarck would not make that genus a monotypical species with that species as its type, for the type species of a genus proposed as a nom.nov. pro another genus is necessarily the species (whatever it may be) which is the type of the genus so replaced. As stated in (iii) above, it is not clear that any subsequent author has designated a type for *Camerina* Brugière under the procedure laid down in Article 30 of the Code. If, however, Lamarck, in addition to citing *C. laevigata* Brugière under *Nummulites* had designated that species as the type and if he had proposed *Nummulites* as a nom.nov. pro *Camerina* Brugière, *C. laevigata* Brugière (being one of the species originally included by that author in his *Camerina*) would automatically become also the type of *Camerina* Brugière under rule (f) in Article 30 of the Code.
 - (vi) Later authors appear to have treated *Camerina* Brugière and *Nummulites* Lamarck as identical genera and it is likely that a search of the literature would disclose a paper in which some author definitely stated that *C. laevigata* Brugière was the type of the first-named genus as well as of *Nummulites* Lamarck. Such a statement would comply with the requirements of rule (g) in Article 30 of the Code and *C. laevigata* Brugière would then become the type of both genera, irrespective of whether *Nummulites* Lamarck was originally proposed as a new genus or as a substitute for *Camerina* Brugière.
 - (vii) In view of the considerations indicated in (ii) to (vi) above, there is, in the absence of additional evidence, a substantial doubt regarding the identity of the type not only of *Camerina* Brugière but also of *Nummulites* Lamarck. There is thus a good *prima facie* case for asking for an *Opinion* from the International Commission in regard to this case, even if there were no question of requesting a suspension of the rules for *Nummulites* Lamarck.
- (B) *On the principles which should govern the grant or rejection of applications for the suspension of the rules in particular cases.*
- (viii) The present International Code was not published until 1905 but the zoological nomenclature to which it applies is recognised by the Code as having started with the publication in 1758 of Linnaeus's *Systema Naturae*, ed. 10. Thus at the present time (1935) the International Code applies to names published during the period of 146 years (1758-1904) prior to its introduction and to names published in the period of 31 years (1904-1935) since its introduction.
 - (ix) As regards any name published in the period since the introduction of the Code, the suspension of the rules is, as Commissioner Witmer

Stone observes, a privilege and one which should be reserved for wholly exceptional cases.

- (x) The position is quite different as regards names published before the introduction of the Code. Retrospective legislation—for such is what the Code is in relation to all names published before 1905—however carefully it may be framed, cannot avoid being harsh and inequitable in a certain number of cases. It was largely to meet this self-evident consideration that in 1913 the International Congress of Zoology conferred plenary power upon the International Commission on Zoological Nomenclature to suspend the rules where, in the judgment of the Commission, the strict application of the rules would clearly result in greater confusion than uniformity. Where in the case of any name published before 1905 it can be established that such confusion would ensue from the strict application of the rules, the suspension of the rules under the plenary powers cannot reasonably be regarded as a privilege which must be hedged about with restrictive conditions. On the contrary, in such cases there are strong *prima facie* grounds in favour of the suspension of the rules.
- (xi) In judging applications for the suspension of the rules in particular cases, the International Commission is in the position of a trustee for all the branches of science in which use is made of zoological nomenclature. The chief of these is systematic zoology, but, as has been cogently pointed out by Dr. Stiles,¹¹ it is necessary and proper that the International Commission should take account also of the legitimate interests of the applied sciences (such as medicine, geology, agriculture, etc.) in which use is made of zoological nomenclature. Due regard should be paid also to economic and social considerations¹¹ where these involve questions of zoological nomenclature.

(C) *Conclusion on the question whether the rules should be suspended in the case of the names Camerina Brugière and Nummulites Lamarck.*

- (xii) The evidence shows that the name *Nummulites* Lamarck has been used very extensively and over a long period of years both as a generic name and (as pointed out by the late Commissioner Bather) as a group name for *Camerina laevigata* Brugière and its allies, whereas the name *Camerina* Brugière has only been used by a limited number of authors. If this was the sole ground on which suspension of the rules was requested in this case, I should be inclined to take the view that, while inconvenience would certainly result from the substitution of *Camerina* Brugière for *Nummulites* Lamarck, it had not been clearly established in the papers submitted that the strict application of the rules in this case would clearly result in greater confusion than uniformity, though with a more adequate presentation of the history of these two names in the XIXth century and in the present century, it might be that the applicants could establish the likelihood of confusion to an extent which would justify the suspension of the rules in this case.
- (xiii) The evidence submitted shows however that the application for the suspension of the rules in this case does not rest solely or even principally upon the effect on the systematics of the Order Foraminifera of the strict application of the rules as regards the names *Camerina* Brugière and *Nummulites* Lamarck. An important part of the application rests upon the argument that, in view of the importance of the name *Nummulites* from the point of view of

¹¹ See passage quoted in paragraph 4 above.

stratigraphy, the elimination of that name under the law of priority and the substitution therefor of the name *Camerina* would clearly result in greater confusion than uniformity. This view has the unanimous support of all the geologists of the United States Geological Survey by whom the question has been considered; all the Australian and, with one exception, all the United Kingdom, geologists who have expressed views on this subject share the view expressed by their American colleagues.

- (xiv) In the light of these considerations, I have reached the conclusion that the applicants have succeeded in establishing the proposition that the strict application of the rules in this case would clearly result in greater confusion than uniformity.
- (xv) I accordingly consider that the relief sought in this case should be granted and therefore that the rules should be suspended for the purpose of suppressing the name *Camerina* Brugière and of placing *Nummulites* Lamarck (with *Camerina laevigata* Brugière as type) on the *Official List of Generic Names*. I accordingly recommend that this case should be dealt with under the procedure prescribed in the second Article of the Plenary Powers Resolution adopted by the Ninth International Congress of Zoology at its meeting held at Monaco in 1913.¹²

12. Thus, when on Tuesday, 17th September 1935, the Commission came to consider this case, fifteen (15) Commissioners had voted on this case.

13. Eleven (11) Commissioners had voted in favour of the suspension of the rules to preserve the name *Nummulites* Lamarck, namely :—

Apstein; Bather; Chapman; Handlirsch; Hemming; Horváth; Ishikawa; Pellegrin; Silvestri; Stiles; and Warren.

14. Four (4) Commissioners had voted against the suspension of the rules in this case, namely :—

Cabrera; Jordan; Stephenson; and Stone.

15. At the meeting referred to above, the Commission had under consideration this case, jointly with that of *Lepidocyclina* Gümbel, [1870], and, after taking note of the state of the voting in each of these cases (Lisbon Session, 4th Meeting, Conclusion 12)¹³ :—

- (b) agreed that in view especially of the long time that these cases had been under consideration by the Commission, it was desirable to do everything possible to secure a final settlement with as little further delay as possible and that the proper course as regards the case of *Nummulites* Lamarck, 1801, was to proceed under Article 2 of the "Plenary Powers" Resolution¹² adopted by the Ninth International Congress of Zoology in March 1913;

¹² See Declaration 5 (1943, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 1 : 31-40).

¹³ For the full text of Conclusion 12, see 1943, *Bull. zool. Nomencl.* 1 : 38-39.

- (c) in view of (b) above, to report the case of *Nummulites* Lamarck, 1801, to the President of the Section of Nomenclature of the present (Lisbon) Congress for action under the said Article 2 of the Resolution of March 1913.

16. The decision recorded above was concurred in by the twelve (12) Commissioners and Alternates present at the Lisbon Session of the International Commission, namely:—

Commissioners:—Calman; Hemming; Jordan; Pellegrin; Peters; and Stejneger.

Alternates:—do Amaral *vice* Cabrera; Ohshima *vice* Esaki; Bradley *vice* Stone; Beier *vice* Handlirsch; Arndt *vice* Richter; and Mortensen *vice* Apstein.

17. In accordance with the foregoing decision, the case dealt with in the present *Opinion* was immediately reported to the President of the Section on Nomenclature of the Lisbon Congress. In view of the fact that (as explained in paragraphs 1 and 2 of the present *Opinion*) the case of *Nummulites* Lamarck versus *Camerina* Brugière had from its inception been considered in conjunction with the case of *Lepidocyclina* Gümbel versus *Cyclosiphon* Ehrenberg, it was impossible to make available the documentation relating to the case of the names *Nummulites* and *Camerina* until after the close of the concluding stages of the case relating to the names *Lepidocyclina* and *Cyclosiphon*. The President of the Section on Nomenclature accordingly decided that it was not practicable to proceed with the appointment of a Board of Three Members for the purpose of reaching a final decision on the case of the names *Nummulites* and *Camerina* until such time as the documents in regard thereto were available, in consequence of the adoption of the forthcoming *Opinion* in regard to the names *Lepidocyclina* and *Cyclosiphon*.

18. In October 1936 there was published *Opinion* 127 dealing with the case of the names *Lepidocyclina* Gümbel and *Cyclosiphon* Ehrenberg. Dr. Stiles took the opportunity so presented to add at the end of that *Opinion* a note showing the state of the vote on the case of the names *Nummulites* Lamarck and *Camerina* Brugière, as it stood at the time of the opening of the Session of the International Commission held at Lisbon in the previous year. Notwithstanding the additional publicity for the last-named case so afforded, no communication of any kind was received by the International Commission, either at that time or subsequently, objecting to the suspension of the rules in favour of *Nummulites* Lamarck.

19. Various causes, including the resignation of the Secretaryship of the Commission by Dr. Stiles and the consequent need for the establishment of the Secretariat of the Commission at new headquarters, combined to make it impossible to secure any further progress in this case before the outbreak of war in Europe in September 1939 put a temporary stop to the activities of the Commission. When, however, it was found possible in the spring of 1942 to arrange for the reopening of the Secretariat of the Commission, this case was reviewed jointly by the President of the Commission and the Secretary to the Commission, who agreed that, having regard to the length of time which this case had already been before the Commission, every effort should be made to secure the services of a former member of the Commission who had not expressed any public opinion on this case and thereby to render possible the immediate appointment of the required Board of Three Members for the purpose of deciding the action to be taken in this case, in accordance with the procedure prescribed in Article 2 of the Plenary Powers Resolution of March 1913.

20. On being approached, Sir Peter Chalmers Mitchell,¹⁴ a former member of the Commission who had expressed no public opinion on this case, kindly consented to assist the Commission by serving on the Board of Three Members. Accordingly, on 30th December 1942, Dr. Karl Jordan, President of the Section on Nomenclature of the Twelfth International Congress of Zoology, acting in virtue of the powers conferred upon him in this behalf by Article 2 of the Plenary Powers Resolution adopted by the Ninth International Congress of Zoology at the meeting held at Monaco on 31st March 1913, appointed for the consideration of this case a Board of Three Members composed as follows :—

Sir Peter Chalmers Mitchell	A former member of the International Commission on Zoological Nomenclature, who had expressed no public opinion on the present case ;
Dr. Frederick Chapman	A Commissioner who had voted in favour of the suspension of the rules in this case ; and

¹⁴ It is with great regret that the International Commission on Zoological Nomenclature have to record that, while the present *Opinion* was passing through the press, the death of Sir Peter Chalmers Mitchell occurred on 2nd July 1945 as the result of a street accident.

Dr. Karl Jordan

A Commissioner who had voted against the suspension of the rules in this case.

21. The terms of reference of the Board of Three Members referred to above were as follows :—

- (i) to review the evidence submitted to the International Commission on Zoological Nomenclature for and against the suspension of the rules in the International Code of Zoological Nomenclature in the case of the names *Nummulites* Lamarck, 1801, and *Camerina* Brugière, 1789 (Class Rhizopoda, Order Foraminifera); and
- (ii) to report whether an *Opinion* should be rendered :—
 - (a) suspending the rules :—
 - (1) to suppress the name *Camerina* Brugière, 1789, *Ency. méth. (Vers)* (1) : xvi for all purposes other than Article 34 of the International Code;
 - and
 - (2) to validate the name *Nummulites* Lamarck, 1801, *Syst. Anim. sans Vert.* : 101 (type : *Camerina laevigata* Brugière, 1789, *Ency. méth. (Vers)* (2) : 399); and
 - (b) placing the name *Nummulites* Lamarck, 1801, so validated, on the *Official List of Generic Names in Zoology*.

22. The following Reports on this case were received from the members of the Board of Three Members constituted by the President of the Section on Nomenclature of the Twelfth International Congress of Zoology in the manner specified in paragraph 20 above :—

- (i) *Report by the former Commissioner, Sir Peter Chalmers Mitchell (dated 13th November 1943) :*

After having given careful consideration to the summary of evidence given me by Commissioner Hemming and having been specially impressed by his examination (in paragraph 11) of the individual case and of the important discussion of the general principles of suspension, I have no hesitation in reporting that an *Opinion* should be rendered (a) suspending the rules (1) to suppress the name *Camerina* Brugière, 1789, *Ency. méth. (Vers)* (1) : xvi (Protozoa), and (2) to validate the name *Nummulites* Lamarck, 1801, *Syst. Anim. sans Vert.* : 101 (type : *Camerina laevigata* Brugière, 1789, *Ency. méth. (Vers)* (2) : 399) (Protozoa); and (b) placing the name *Nummulites* Lamarck, 1801, so validated, on the *Official List of Generic Names in Zoology*.

- (ii) *Report by Commissioner Karl Jordan (dated 12th December 1943) :*

In arriving at a vote in favour of *Nummulites* Lamarck, 1801, I have been guided by the following considerations :—

- (1) From 1758 to recent times the principle of priority was not generally applied. Its strict application to the literature of that period frequently requires a change of names.

- (2) The replacement of a familiar name by an older unfamiliar one is no hardship for the specialist. Equally, the suppression (for some cogent reason) of an older name in favour of a younger one is a small matter for the systematist, unless he loses control of his temper and forgets that a concept of complete justice must include equity.
- (3) Therefore, if the application of strict priority is in an individual case a real hardship for another field of knowledge, the claim of the systematist should be set aside if nothing but priority is involved for him, zoological nomenclature having the sole object to provide a *convenient universal* means of reference to the animal named.
- (4) The name *Nummulites* having almost universally been applied as a generic term for leading fossils in certain geological strata, its suppression would lead to confusion in teaching geology, in geological research and in the application of geological knowledge. For which reason I vote that the law of priority be suspended in the case of *Nummulites* versus *Camerina* and that *Nummulites* be put on the *Official List of Generic Names in Zoology* in the manner indicated in part (ii) of the Board's terms of reference.¹⁵

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION.

23. The decision taken by the International Commission on Zoological Nomenclature in the present case is:—

- (a) under suspension of the rules:—
- (i) to suppress the name *Camerina* Brugière, 1789, *Ency. méth.* (Vers) (1) : xvi (Class Rhizopoda, Order Foraminifera) for all purposes other than Article 34 of the International Code; and
 - (ii) to validate the name *Nummulites* Lamarck, 1801, *Syst. Anim. sans Vert.* : 101 (type: *Camerina laevigata* Brugière, 1789, *Ency. méth.* (Vers) (2) : 399); and
- (b) to add the name *Nummulites* Lamarck, 1801, validated as in (a) above and with the type there specified, to the *Official List of Generic Names in Zoology*.

24. The foregoing decision was taken by the International Commission on Zoological Nomenclature, acting through a Board of Three Members constituted in accordance with the provisions of Article 2 of the Plenary Powers Resolution of March 1913.¹⁶

25. The following two (2) members of the Board of Three Members voted in favour of the adoption of the present *Opinion*:— Mitchell; Jordan.

26. No member of the Board of Three Members voted against the present *Opinion*. No vote was received from the third member of the Board (namely Commissioner Chapman), who died¹⁷ after having been appointed a member of the Board but before having recorded his vote.

¹⁵ See paragraph 21 above.

¹⁶ See footnote 12.

¹⁷ The death of Commissioner Frederick Chapman occurred on 10th December 1943.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913, adopted a Resolution conferring upon the International Commission on Zoological Nomenclature, Plenary Powers to suspend the rules as applied to any given case where, in the judgment of the Commission, the strict application of the rules would clearly result in greater confusion than uniformity, provided either that after the due advertisement of the possible suspension of the rules as applied to the said case the members of the Commission were unanimously in favour of that course or that, in default of unanimity, a Board of Three Members duly constituted in accordance with the provisions of Article 2 of the Resolution of March 1913 referred to above (hereinafter referred to as the "Plenary Powers Resolution"), acting for the said International Commission, decided, either unanimously or by a majority, in favour of the suspension of the rules as applied to the case so referred to them for decision; and

WHEREAS the suspension of the rules is required to give valid force to the provisions of the present *Opinion* as set out in the summary thereof; and

WHEREAS in default of unanimity regarding the decision to be taken as respects the names dealt with in the present *Opinion*, the International Commission agreed unanimously at their Session held at Lisbon in 1935 that this case should be decided by a Board of Three Members constituted in accordance with the provisions of Article 2 of the Plenary Powers Resolution; and

WHEREAS the Board of Three Members duly constituted to consider this case has agreed that an *Opinion* should be rendered by the International Commission on Zoological Nomenclature in the sense of the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of

Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Ninety Two (*Opinion 192*) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this second day of January, Nineteen Hundred and Forty Five, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

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Bulletin of Zoological Nomenclature.

This journal has been established by the International Commission as their Official Organ in order to provide a medium for the publication of :—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

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Volume 2. This volume will be issued in 52 Parts, comprising all the decisions taken by the International Commission at their meeting at Lisbon in 1935, namely *Declarations* 10-12 (with Roman pagination) and *Opinions* 134-181 (with Arabic pagination). Part 52 will contain the index and title page of the volume. Parts 1-35, containing *Declarations* 10-12 and *Opinions* 134-165, have now been published. Further Parts will be published shortly.

Volume 3. This volume, which commenced with *Opinion* 182, will contain the *Opinions* adopted by the International Commission since their meeting at Lisbon in 1935. Parts 1-11 (containing *Opinions* 182-192) have now been published. Further Parts will be published as soon as possible.

APPEAL FOR FUNDS

The International Commission appeal earnestly to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Commission's Special (Publications) Fund. Of the total sum of £1,800 required to enable the Commission to issue all the publications now awaiting printing, donations amounting to £969 16s. 1d. were received up to 30th June 1945. Additional contributions are urgently needed in order to enable the Commission to continue their work without interruption. Contributions of any amount, however small, will be most gratefully received.

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Edited by

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

Secretary to the Commission

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OPINION 193

On the status of the name *Procheneosaurus*
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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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OPINION 193.

ON THE STATUS OF THE NAME *PROCHENEOSAURUS* MATTHEW, 1920 (CLASS REPTILIA, ORDER ORNITHISCHIA).

SUMMARY.—The name *Procheneosaurus* Matthew, 1920 (Class Reptilia, Order Ornithischia) is available under the *Règles*, since it satisfies the requirements of Article 25 of the *Règles Internationales* as respects names published prior to 1st January 1931. Matthew included in this genus a single (then unnamed) species, which Lull & Wright (1942) have identified under *Opinion 46* as *Tetragonosaurus praeceps* Parks, 1931. That species is accordingly the type of *Procheneosaurus* Matthew, 1920, by monotypy. The name *Procheneosaurus* Matthew, 1920, as defined above, is hereby added to the *Official List of Generic Names in Zoology* as Name No. 624. The name *Tetragonosaurus* Parks, 1931, is not available as from the date of its publication in 1931, since, as then published, it does not satisfy the requirements of Article 25 of the Code as respects names published on or after 1st January 1931.

I.—THE STATEMENT OF THE CASE.

This case was submitted to the International Commission on Zoological Nomenclature by Dr. Richard S. Lull, Director, Peabody Museum of Natural History, Yale University, in the following letter dated 4th October 1935 :—

A group of trachodont dinosaurs, known as cheneosaurs from the Belly River and Edmonton formations of Alberta and the Two Medicine formation of Montana.

First described by L. M. Lambe in 1917 (*Ottawa Naturalist* 30 (10) : 127-133, 2 plates) as *Cheneosaurus tolmanensis* from the Edmonton Formation, Red Deer River, Alberta. The holotype consists of a nearly perfect skull, no. 2246 G.S.C., including some skeleton material; paratype no. 2247 G.S.C., a second skull, less perfect, of what is evidently an adolescent individual of the same species.

Beth description and types are in every way adequate to define the generic characters in so far as they may be seen in the skull alone.

In 1920 W. D. Matthew proposed the name *Procheneosaurus* for a cheneosaur from the Belly River formation of Alberta; but his definition, published in *Natural History* 20 (5) : 542, is very brief and consists of the following words : " A small kind with little bill and short round head. A fine skeleton on exhibition in the American Museum."

Even that brief description would enable one conversant with the Belly

River trachodonts to separate the animal from any other genus of these dinosaurs, and the specimen which is catalogued as *Procheneosaurus*, no. 5340 in the American Museum, is remarkably perfect and can form a basis for a complete description, not only of the skull but of the entire skeleton. In other words, there is no question whatever of what Dr. Matthew had in mind and of the identity both of the genus and of the very adequate type. He gave the form no specific name.

In 1931 Dr. W. A. Parks gave a new generic name *Tetragonosaurus* (*Univ. of Toronto Studies* (Geol. Ser.) 31 : 1-11, pls. 1-3) to Belly River cheneosaurs, which cannot be distinguished generically from Matthew's *Procheneosaurus*, on the ground that Matthew's description was inadequate and therefore his name had no standing. The type material is again adequate, consisting of two skulls and other skeletal material, no. 3577 at Royal Ontario Museum and no. 3578 at R.O.M. These were designated as the holotypes of *Tetragonosaurus praeceps* and *T. erectofrons* respectively, the former being in all probability not only congeneric but conspecific with Matthew's type specimen.

Of the validity of Lambe's *Cheneosaurus* there can be no question. The point I wish to lay before the Commission for decision is whether Parks' *Tetragonosaurus* with its adequate description should stand as the name of the Belly River genus of cheneosaurs, or whether Matthew's name of *Procheneosaurus*, which has priority of publication, should hold.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

2. In June 1936 copies of the application in this case were communicated to the Members of the Commission by Dr. C. W. Stiles, at that time Acting Secretary to the Commission, together with a note in which Dr. Stiles set out the conclusions which he had reached, after, jointly with Dr. C. W. Gilmore, Curator, Division of Vertebrate Palaeontology, United States National Museum, he had examined the papers referred to in the application. In this note Dr. Stiles expressed the view that the type of *Procheneosaurus* Matthew was the sole species referred to it by Matthew, namely the unnamed species to which Specimen No. 5340 in the American Museum was referable. Dr. Stiles then continued as follows :—

The generic diagnosis of *Procheneosaurus* Matthew is very brief, but according to the premises, "there is no question whatever of what Dr. Matthew had in mind and of the identity both of the genus and of the very adequate type." Accordingly, *Procheneosaurus* Matthew is available under the rules unless this name is preoccupied as a homonym.¹

3. Dr. Stiles accordingly invited the Commission to render an *Opinion* stating that the name *Procheneosaurus* Matthew, 1920, was available under the rules.

4. As a result, eight (8) Commissioners at that time recorded their votes on this case.

¹ It has been verified that the name *Procheneosaurus* Matthew, 1920, is not a homonym of any previously published generic name.

5. The following seven (7) Commissioners voted in favour of the Commission rendering an *Opinion* in the sense proposed :—

Chapman; Esaki; Fantham; Peters; Silvestri; Stiles; and Stone.

6. One (1) Commissioner (Commissioner Richter) voted against this proposal. In doing so, he submitted the following statement of his views :—

Der *Opinion* wird *nicht* zugestimmt. Das Verfahren, ein Individuum *nur mit dem Gattungsnamen* zu bezeichnen entspricht weder den Grundsätzen der heutigen Systematik noch denen der binären Nomenklatur. Wie das Individuum die Grundlage für den Artbegriff darstellt, so ist die Art (und nicht das Individuum) in jedem Fall die Grundlage für den Gattungsbegriff. *Gattungen ohne Arten* kann es in unserm System nicht geben; Gattungsnamen für Arten, die nicht aufgestellt oder nicht vorhanden sind, sind daher zu verwerfen.

Aus diesem Grunde ist auch *Opinion 46 z.T.* als verfehlt zu betrachten.

Ausserdem gibt es noch einen *andern* Grund, weshalb ein Gattungsnamen Ohne einen Art-Namen keine Gültigkeit hat : Zur Kennzeichnung einer Gattung ist die Bestimmung einer typischen Art erforderlich. Nach Artikel 30IIe dürfen Arten, die " bei der ursprünglichen Veröffentlichung der Gattung nicht in den Gattungsnamen eingeschlossen wurden," als Gattungs-Typen nicht in Betracht kommen. Einen Gattungsnamen, bei dessen Aufstellung (wie bei *Procheneosaurus*) überhaupt noch keine Arten bekannt waren, (und daher auch in den Gattungsnamen nicht eingeschlossen werden konnten) *fehlt also die eigentliche Gattungs-Kennzeichnung*, der Typus. Solche Gattungsnamen sind daher als *nomina nuda* zu behandeln ; sie können erst von dem Augenblick an einen nomenklatorischen Status haben, in dem sie durch eine oder mehrere Arten gekennzeichnet werden.

7. At this stage this case was put on one side, since clearly in any *Opinion* which the Commission might render thereon, it was essential they should indicate what species was the type of the genus *Procheneosaurus* Matthew, 1920.² The identity of that species had been clearly established by Matthew, but the species so identified was at that time either unnamed, or if the species had been named, the name so given had not been identified with specimen no. 5340 in the American Museum of Natural History.

8. This case was further considered in 1943, when Commissioner Francis Hemming, Secretary to the Commission, wrote a further letter (dated 2nd October, 1943) to Dr. Lull with the object of clearing up outstanding points and so of preparing the way for the issue by the Commission of an *Opinion* on this case. The

² In view of the clear indication given by Dr. Matthew, the procedure laid down in *Opinion 46* is not applicable in this case, for the type species of this genus is clearly recognisable from the original description. The only question which was in doubt was the name of that species.

following is an extract of the relevant portions of the letter referred to above :—

The point involved is this : A generic name, to be valid, must, if published after 31st December 1930,³ be accompanied both by an adequate diagnosis or a reference to such a diagnosis (or more extended description or reference thereto) and by an unambiguously designated type species. As the name *Procheneosaurus* was published by Matthew before that date, these stricter rules do not apply; but even a name published before the amendment of the Code referred to above, cannot be regarded as effective for ordinary purposes until a type possessing a name under the Linnean system has been designated for the genus. According to the data supplied in your letter Matthew clearly indicated that the name *Procheneosaurus* which he then proposed was intended to be the generic name for the unnamed species of which there was " a fine skeleton on exhibition in the American Museum." This is, you further state, the specimen " which is catalogued as *Procheneosaurus*, no. 5340 in the American Museum."

What I shall be grateful if you will inform me is whether any author has yet published a binominal specific name for the species, of which specimen 5340 in the American Museum is an example. If so, what is that name, who gave it, and when and where was it published?

The reason why the Commission needs to be in possession of this information is, of course, that, if there is a named species which (by monotypy) is the type of *Procheneosaurus* Matthew, then it is possible to compare the nomenclatorial status of that genus (and to form a conclusion thereon) in relation to the later genus *Tetragonosaurus* Parks, 1931.

As regards the last-named genus, I note that it was based upon two skulls and other skeletal material, to which two names (*T. praeceps* and *T. erectofrons*) were given by Parks. I shall be grateful if you will inform me

³ At its meeting held at Budapest in 1927 the Tenth International Congress of Zoology decided considerably to stiffen up the provisions in Article 25 of the International Code of Zoological Nomenclature regarding the conditions with which a new generic name must comply before it can acquire any status under the Law of Priority. In order, however, to provide zoologists with ample opportunity of acquainting themselves with the new provisions in Article 25, the International Congress at the same time decided that those provisions should not become operative until midnight (Greenwich Mean Time) 31st December 1930/1st January 1931. The changes decided upon at Budapest were effected by the insertion of a new proviso (proviso (c)) in Article 25, which provided, *inter alia*, that no generic name published after 31st December 1930 should have any status of availability (hence also of validity), unless and until it is published with a " definite and unambiguous designation of the type species." Names published before the above date remained, however, subject to the provisions of Article 25, as they existed prior to the adoption of the Budapest amendment, that is to say, names published before 1st January 1931 are not automatically invalidated by reason of having been published without a " definite and unambiguous designation of the type species." In determining whether a generic name published without a designated type is an available name, it is, therefore, now necessary first to ascertain whether the name in question was published on or before 31st December 1930 or whether it was published on or after 1st January 1931.

For full particulars relating to the amendment to Article 25 of the International Code adopted at Budapest in 1927 (including the text of that Article so amended), see NOTE 3 to *Opinion 1* (1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature 1 : 76-78*).

whether Parks designated one or other of these species as *the type* of the genus *Tetragonosaurus*, and, if so, which. If he did not do so, the name *Tetragonosaurus*, being a name published after 31st December 1930,⁴ is invalid, quite apart from any decision which may be taken by the International Commission as regards the status of *Procheneosaurus* Matthew.

9. On 4th November 1943, Dr. Lull replied as follows:—

Matthew's description of *Procheneosaurus*, such as it is, refers to the genus only as no species was either named or described. However, he clearly indicated a type specimen (No. AMNH 5340) which is recognizable without question and ample for description.

In 1931 Parks described two species under *Tetragonosaurus*, *praeceps* and *erectofrons*, and, while he designated neither as the genotype in so many words, he heads his description of *praeceps*, "*Tetragonosaurus praeceps* gen. et sp. nov.," and for that of *erectofrons*, "*Tetragonosaurus erectofrons* sp. nov."

Lull and Wright (1942, *Geol. Soc. Amer.*, Special Papers 40:178) identified Matthew's type of *Procheneosaurus* No. AMNH 5340 as pertaining to Parks' first species and called it *Procheneosaurus praeceps* (Parks), which they designated as the genotype.

10. The information so received showed:—

- (a) that *Tetragonosaurus praeceps* Parks, 1931, was the type of *Procheneosaurus* Matthew, 1920, having been so designated by Lull and Wright in 1942;
- (b) that, when describing the genus *Tetragonosaurus* Parks, 1931, Parks had described two new species as belonging to this genus and that he had headed the description of the first of these species as follows: "*Tetragonosaurus praeceps* gen. et sp. nov.;"
- (c) that, as the use of the formula quoted in (b) above complies with the requirements of *Opinion 7*, the type of *Tetragonosaurus* Parks, 1931, would have been *Tetragonosaurus praeceps* Parks, 1931, if the name *Tetragonosaurus* Parks had been published in the period which ended on 31st December 1930, the last day of the period of grace preceding the coming into operation of the amendment to Article 25 of the International Code, adopted by the Tenth International Congress of Zoology at its meeting held at Budapest in September 1927;⁵ but
- (d) that, in view of the fact that Parks did not give a "definite unambiguous designation of the type species" of the genus *Tetragonosaurus* Parks, as required by the amendment to Article 25 of the Code, which came into operation as from midnight 31st December 1930/1st January 1931 (Greenwich time),⁵ the generic name *Tetragonosaurus* has no status

⁴ See footnote 3.

⁵ See footnote 3.

under the Law of Priority (Article 25) and therefore no status of availability or validity) as from the date of its publication by Parks in 1931.

11. On receipt of this information, two (2) additional Commissioners (Commissioners Jordan and Hemming) voted in favour of the adoption of the proposed *Opinion*. This case, together with the information summarised in paragraph 10 above, was thereupon brought to the attention of all the available Commissioners who had not as yet voted thereon.

12. By 29th January 1944, the number of votes required by the By-Laws of the Commission (Article 7) to secure the adoption of a proposed *Opinion* (10 votes) ⁶ had been received in favour of the *Opinion* proposed to be rendered in the present case. At that time, however, there were still two (2) Commissioners who were resident in countries accessible by post but who had not as yet recorded their votes in regard to this case. In view of the great delays which at that time often occurred in the receipt of letters from abroad, the Secretary to the Commission decided that it would be proper to afford to the two Commissioners concerned a further opportunity to vote on this case. He accordingly directed that the closing of the ballot on this case should be deferred for a further period of six months (*i.e.* until 29th July 1944) or until votes had been received from each of the Commissioners concerned, whichever date might be the earlier. On 7th June 1944, the vote was received from the second of the two Commissioners concerned, and on that day, therefore, the Secretary to the Commission, acting in virtue of the powers conferred upon him in that behalf by Article 7 of the By-Laws, closed the ballot in this case.

III.—THE CONCLUSION REACHED BY THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE.

13. The decision taken by the International Commission on Zoological Nomenclature in the present case is :—

- (1) The type of *Procheneosaurus* Matthew, 1920 (*Nat. Hist.* 20 (5) : 542) (Class Reptilia, Order Ornithischia) is *Tetra-*

⁶ Since this case did not involve the use of the Commission's plenary powers, it does not require a unanimous vote, and ten affirmative votes suffice to secure the adoption of the proposed decision as the *Opinion* of the Commission.

gonosaurus praeceps Parks, 1931 (*Univ. Toronto Stud.* (Geol. Ser.) 31 : 1-11 pl. 1-3), that species having been identified by Lull & Wright (1942, *Geol. Soc. Amer.*, Special Papers 40 : 178) as the species on which Matthew founded the monotypical genus *Procheneosaurus* Matthew, 1920, *i.e.* the species to which is referable specimen No. 5340 in the American Museum of Natural History.

(2) In view of the fact that the name *Procheneosaurus* Matthew was published before 1st January 1931 (the date as from which became operative the requirements of proviso (c) added to Article 25 of the International Code by the Tenth International Congress of Zoology at Budapest in 1927), this name is not invalidated by reason either of :—

- (a) the scanty nature of the "indication" given for this genus by Matthew in his original description; or of
- (b) the absence in the original description of a "definite unambiguous designation of the type species."

(3) The name *Procheneosaurus* Matthew, 1920 (type: *Tetragonosaurus praeceps* Parks, 1931) is therefore available nomenclatorially and is hereby added to the *Official List of Generic Names in Zoology*.

(4) The name *Tetragonosaurus* Parks, 1931 (*Univ. Toronto Stud.* (Geol. Ser.) 31 : 4) is not available nomenclatorially as from 1931, since, being published without a "definite unambiguous designation of the type species," it does not satisfy the requirements of Article 25 of the Code as respects names published on or after 1st January 1931.

14. The following twelve (12) Commissioners voted in favour of the present *Opinion* :—

do Amaral; Calman; Chapman; Dymond; Esaki; Fantham; Hemming; Jordan; Peters; Silvestri; Stiles; and Stone.

15. One (1) Commissioner (Commissioner Richter) voted against the present *Opinion*.

16. The following two (2) Commissioners did not vote on the present *Opinion* :—

Cabrera; and Pellegrin.

17. In addition one (1) Commissioner (Commissioner Bolivar y Peltain), who was a member of the Commission when the ballot on this case was opened, resigned his membership of the Com-

170 OPINIONS AND DECLARATIONS RENDERED BY THE INTERNATIONAL mission without having voted on the present case, and another such Commissioner (Commissioner Stejneger) died without having voted thereon. The following four (4) Commissioners, namely Commissioners Arndt, di Caporiacco, von Hankó, and Jaczewski, were elected members of the Commission during the later stages of the ballot on this case and did not take part in its consideration.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT *OPINION*.

WHEREAS the By-Laws of the International Commission on Zoological Nomenclature provide that, except in cases involving the suspension of the *Règles*, an *Opinion* is to be deemed to have been adopted by the said International Commission as soon as a majority of the Members of the Commission, that is to say ten (10) Members of the said Commission, have recorded their votes in favour thereof, provided that, where any proposed *Opinion* involves a reversal of any former *Opinion* rendered by the Commission, such proposed *Opinion* shall obtain the concurrence of at least fourteen (14) Members of the Commission voting on the same before such *Opinion* is to be deemed to have been adopted by the Commission; and

WHEREAS the present *Opinion*, as set out in the summary thereof, neither requires, in order to be valid, the suspension of the *Règles*, nor involves a reversal of any former *Opinion* rendered by the Commission; and

WHEREAS twelve (12) Members of the Commission have signified their concurrence in the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Ninety Three (*Opinion* 193) of the said Commission.

In faith whereof I, the undersigned FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this eighteenth day of April, Nineteen Hundred and Forty Five, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature.*

FRANCIS HEMMING

THE PUBLICATIONS OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE.

(obtainable at the Publications Office of the Commission at 41, Queen's Gate, London, S.W.7.)

Opinions and Declarations rendered by the International Commission on Zoological Nomenclature.

The above work is being published in three volumes concurrently, namely :—

Volume 1. This volume will contain *Declarations 1-9* (which have never previously been published) and *Opinions 1-133* (the original issue of which is now out of print). In order that the volume, when bound, may be of a convenient size for handling, it has been decided to divide volume 1 into a series of Sections, which will be continuously paged but will each be supplied with a title page and index. The first of these Sections (Section A) will comprise *Declarations 1-9* and *Opinions 1-16*. Part 17 containing the index and title page for Section A will be published as soon as possible. The publication of Parts of Section B will be started immediately.

Parts 1-25 (comprising *Declarations 1-9* and *Opinions 1-16*) have now been published. Further Parts are in the press and will be published as soon as possible.

Volume 2. This volume will contain *Declarations 10-12* and *Opinions 134-181* and will thus be a complete record of all the decisions taken by the International Commission on Zoological Nomenclature at their meeting held at Lisbon in 1935. This volume will be published in two Sections, which will be continuously paged but will each be supplied with a title page and index.

Section A, comprising *Declarations 10-12* and *Opinions 134-160* (published in Parts 1-30 and 30 A), is now complete, price £4 4s. od. Individual Parts of this Section are also obtainable separately at the prices at which they were originally published.

Section B will comprise *Opinions 161-181* (to be published as Parts 31-52). Parts 31-51 (containing *Opinions 161-181*) have

now been published and it is hoped that Part 52 containing the index and title page will be published at an early date.

Volume 3. This volume, which commenced with *Opinion 182*, will contain the first instalment of the *Opinions* adopted by the International Commission since their Lisbon meeting. Parts 1-13 (containing *Opinions 182-194*) have now been published. Further Parts will be published as soon as possible.

Bulletin of Zoological Nomenclature.

This journal was established by the International Commission on Zoological Nomenclature in 1943 as their Official Organ in order to provide a medium for the publication of :—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

Parts 1-10 of volume 1 have now been published. Further Parts are in the press and will be published as soon as possible.

APPEAL FOR FUNDS

The International Trust for Zoological Nomenclature earnestly appeal to all institutions and individuals interested in the development of zoological nomenclature to contribute, according to their means, to the Special (Publications) Fund established for financing the publication of the International Commission on Zoological Nomenclature. Additional donations are urgently needed to enable the Trust to secure that there shall be no interruption in the Publications Programme of the International Commission.

Already since the ending of the war, there has been a noticeable increase in the rate at which new applications have been received by the International Commission from zoologists. The Commission welcome this development and intend to do everything in their power to deal promptly with all such applications, but, if they are to succeed in so doing, they will need to receive active assistance from all institutions and individual zoologists who are in a position to contribute towards the funds of the Commission.

Contributions of any amount, however small, will be most gratefully received and should be sent to the International Trust at their Publications Office, 41, Queen's Gate, London, S.W.7. All such contributions should be made payable to the "International Trust for Zoological Nomenclature or Order" and crossed "Account payee. Coutts & Co."

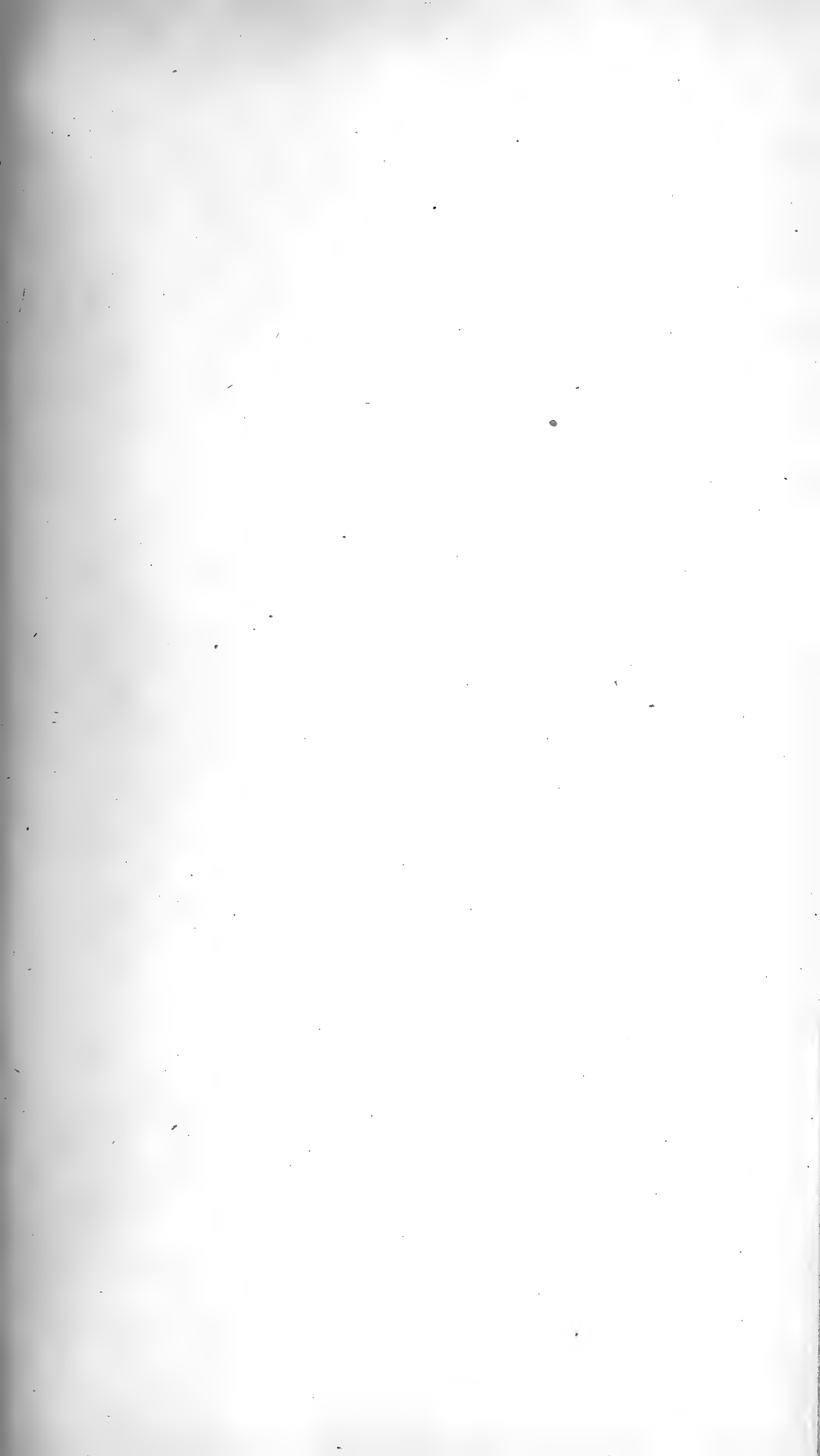
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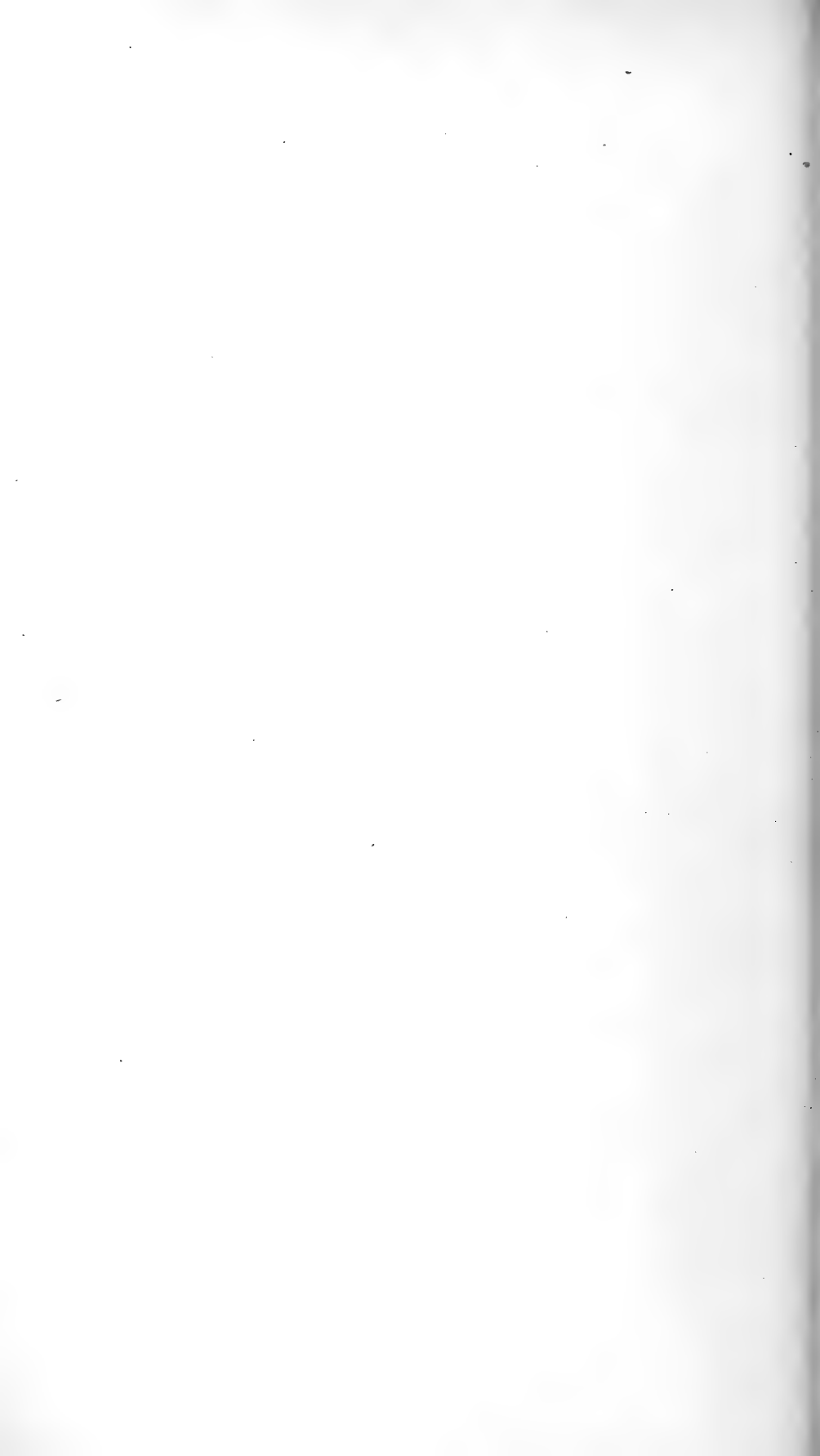
FRANCIS HEMMING

*Secretary to the International Trust for
Zoological Nomenclature.*

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1st February, 1947





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

Edited by

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

Secretary to the Commission

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OPINION 194

On the status of the name *Ophiceras* Griesbach,
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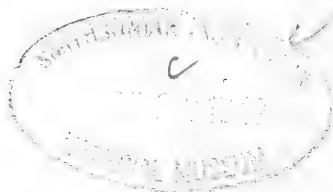
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OPINION 194.

ON THE STATUS OF THE NAME *OPHICERAS* GRIESBACH, 1880 (CLASS CEPHALOPODA, ORDER AMMONOIDEA).

SUMMARY.—Under suspension of the *Regles Internationales* (i) the name *Ophiceras* Suess, 1865, is hereby suppressed for all nomenclatorial purposes and (ii) the name *Ophiceras* Griesbach, 1880 (Class Cephalopoda, Order Ammonoidea), is validated with *Ophiceras tibeticum* Griesbach, 1880, as type. The name *Ophiceras* Griesbach, 1880, so validated, is hereby added to the *Official List of Generic Names in Zoology* as Name No. 625.

I.—THE STATEMENT OF THE CASE.

The case of *Ophiceras* Griesbach, 1880 (Class Cephalopoda, Order Ammonoidea) together with the case of *Lytoceras* Suess, 1865 versus *Ophiceras* Suess, June 1865 (Class Cephalopoda, Order Ammonoidea), was submitted to the International Commission on Zoological Nomenclature by Dr. L. F. Spath, British Museum (Natural History), through Commissioner F. A. Bather in March 1929. The statement so submitted by Dr. Spath is as follows:—

Ophiceras was proposed by E. Suess in June 1865 (*Anz. Akad. Wiss. Wien* 2 (No. 17) : 112) for the "fimbriati" group of *Ammonites fimbriatus* Sowerby but was afterwards thought to clash with *Ophiceras* Barrande, May 1865 (*Syst. silur. centre Bohême Rech. pal.* 2 : Atl. fasc. 1 Explic. pl. 45) (= *Ophidioceras* Barrande, 1867, *ibid.* 2 (Text 1) : 174) and was replaced later in 1865 by *Lytoceras* Suess (*Sitz. Ber. Akad. Wiss. Wien* 52 (No. 1) : 78). This last has ever since been in universal use.

A second *Ophiceras* was proposed in 1880 by Griesbach (*Rev. geol. Surv. Ind.* 13 : 102, 109) for a Triassic group of ammonites, and, Suess's original *Ophiceras* being forgotten, has now become universally accepted.

The resuscitation of the original *Ophiceras* according to the rules of nomenclature would cause great palaeontological confusion. *Lytoceras* and the family LYTOCERATIDAE are now given in every textbook, *Lytoceras* being one of the two fundamental ammonite genera, persisting from the base of the Lias to the Upper Cretaceous. *Ophiceras*, also recorded in most textbooks, is Lower Triassic in age, so that from stratigraphical considerations also, it would be advisable to secure stabilisation of the present use of these two genera by the International Commission as follows:—

Genus *Lytoceras* Suess, 1865¹ (genotype : *Ammonites fimbriatus* Sowerby, 1817, *Min. Conchol.* 2 : 145 pl. 164)

Genus *Ophiceras* Griesbach, 1880 (genotype² : *Ophiceras tibeticum* Griesbach, 1880, *Rec. geol. Surv. Ind.* 13 : 109 pl. 3 (fig. 4)).

¹ See *Opinion* 130.

² In reply to an inquiry by Commissioner Francis Hemming, Secretary to the Commission, Dr. Spath furnished the following supplementary note, dated 27th October 1943:—

Griesbach described three species but did not specify a type. The selection of *O. tibeticum* is due to Diener (1897, "The Cephalopoda of the Lower Trias," *Mem. geol. Surv. Ind. Pal. indica* (ser. 15) (Himalayan Fossils) 2 (Pt. 1) : 101).

2. In his covering letter submitting the foregoing application to the Commission, Commissioner Bather said :—

I have gone into this case carefully and consider it to be eminently one where adherence to the rules would produce nothing but confusion. I therefore recommend as the *Opinion* of the Commission : That, to prevent confusion, the law of priority be suspended as regards *Lytoceras* Suess, 1865 (genotype, *Ammonites fimbriatus* Sowerby) and *Ophiceras* Griesbach, 1880 (genotype, *O. tibeticum* Griesbach) and that these two names be added to the *Official List of Generic Names*.

II.—THE SUBSEQUENT HISTORY OF THE CASE.

3. On receipt of the foregoing application, Dr. C. W. Stiles, Secretary to the International Commission, decided as a first step to consult certain specialists interested in this case either directly from the point of view of systematic zoology or indirectly from that of geological surveying. The replies in most cases covered not only the present case but also the case of *Lytoceras* Suess, 1865, and *Ophiceras* Suess, 1865. The replies so received in respect of the last-named case are quoted in full in the *Opinion* relating to that case (*Opinion* 130), together with the replies which related both to that case and to the present case. So much as is necessary of the latter replies is quoted below, together with one communication which referred only to the present case :—

- (a) *Comment by Dr. W. C. Mendenhall, Acting Director of the U.S. Geological Survey, Washington, D.C., dated 2nd May 1929, containing the views of eight palaeontologists of the Geological Survey then in Washington.*

The proposition now before the International Commission on Zoological Nomenclature to suspend the law of priority in the case of two generic names of ammonites *Lytoceras* and *Ophiceras* has been considered by the palaeontologists of the Geological Survey now in Washington who are concerned with zoological names.

C. Wythe Cooke, George H. Girty, W. C. Mansfield, J. B. Reeside, jr., P. V. Roundy, T. W. Stanton and L. W. Stephenson state that they concur in the recommendation of Dr. F. A. Bather that the two names *Lytoceras* Suess and *Ophiceras* Griesbach should be added to the list of *nomina conservanda* under suspension of the law of priority.

Edwin Kirk joins in this recommendation so far as *Lytoceras* is concerned but thinks that the retention of Griesbach's *Ophiceras* would be unfortunate because Suess's prior use of that name has been noted by Marshall in 1873 and by subsequent bibliographers.

- (b) *Comment by Dr. Rudolf Richter,³ Senckenbergische Naturforschende Gesellschaft, Frankfurt a.M., dated 15th June 1929.*

Suspension der Regeln soll eine sehr seltene Ausnahme bleiben, weil die

³ Dr. Richter was elected a member of the International Commission on Zoological Nomenclature in 1930.

häufigere Anwendung dieses Rechtes zu schlimmen Folgen für die Nomenklatur führen würde.

Im Falle von *Lytoceras* Suess und *Ophiceras* Griesbach ist aber *Suspension* das allein Richtige.

(c) *Comment by Dr. R. Spärck, Universitetets Zoologiske Museum, Copenhagen, dated 1st November 1929.*

I beg to inform you that I have looked through the cases of *Lytoceras* and *Ophiceras*. I absolutely recommend the proposition to suspend the rule of priority in the case of the two above mentioned generic names. Dr. Ravn, Head of the Department of Palaeontology, joins the recommendation so far as *Lytoceras* is concerned, but is of opinion that the retention of Griesbach's *Ophiceras* would be unfortunate.

(d) *Comment by Dr. Paul Bartsch, Curator of Mollusks and Cenozoic Invertebrates, dated 4th February 1930.*

While I do not favour exceptions to the law of priority, this case appears to be one in which abiding by the rules would produce greater confusion than the suspension thereof. I therefore favor Dr. Bather's opinion.

(e) *Comment by Dr. B. B. Woodward, London (undated).*

I am of opinion that *Lytoceras* should be placed with "nomina conservanda," but that *Ophiceras* Griesbach, 1880, should not be accepted, Suess's earlier name having passed into literature.

4. The application in this case, together with the comments thereon quoted in paragraph 3 above, was communicated to the members of the Commission by Dr. Stiles in February 1931. In doing so, Dr. Stiles pointed out that there was unanimity among the experts consulted, so far as *Lytoceras* Suess, 1865, was concerned, and that there was an overwhelming affirmative majority in favour of suspending the *Règles Internationales* for *Ophiceras* Griesbach, 1880. Accordingly, he recommended that the *Règles* should be suspended for both these names and that they should both be placed in the *Official List of Generic Names*, with the types indicated in the petition quoted in paragraph 1 above.

5. Shortly after the circulation to the members of the Commission of the document referred to above, Dr. Willward G. Van Name, American Museum of Natural History, New York, who had also been consulted by Dr. Stiles, replied as follows:—

I agree with the view expressed by Dr. Bather. The objection raised by Dr. Kirk regarding the retention of Griesbach's *Ophiceras* is a reasonable one but I consider that it is outweighed by other circumstances of the case and should not interfere with the retention of Griesbach's genus.

6. In August 1932 the possible suspension of the *Règles* in this case was duly advertised in the manner prescribed in proviso (a)

to Article 1 of the Plenary Powers Resolution ⁴ adopted by the Ninth International Congress of Zoology in March 1913. In the period of twelve months following this advertisement, no communication of any kind was addressed to the International Commission objecting to the suspension of the *Règles* for *Ophiceras* Griesbach. On the other hand, immediately after the appearance of the advertisement in this case Dr. A. K. Miller, State University of Iowa, wrote to the Commission (on 12th July 1932) supporting the action proposed to be taken in this case. Dr. Miller stated:—

Recently, while studying nautiloid genera with similar names, I called attention to the fact that the generic name *Ophiceras* Griesbach, 1880, was a homonym of *Ophiceras* Suess, 1865, and I proposed the name *Greisbachoceras* ⁵ for it and designated *Ophiceras tibeticum* Griesbach as the genotype (1932, *Univ. Iowa Studies Nat. Hist.* **14** (No. 4) : 16 *nota*). I was of course unaware that the case was about to be presented to the Commission, and I am writing you now to state that if it will serve the best interests of all concerned, I sincerely hope that my recently proposed generic name will be suppressed and Griesbach's name will be established.

7. In February 1935 Dr. Stiles reported to the Commission that twelve (12) Commissioners had recorded their votes on this case in response to the invitation contained in the document which in February 1931 he had circulated to the members of the Commission (paragraph 4 above). Nine (9) Commissioners (Apstein, Bather, Chapman, Horváth, Ishikawa, Pellegrin, Richter, Stephenson and Stiles) had voted in favour of the suspension of the *Règles* to preserve *Ophiceras* Griesbach; three (3) Commissioners had voted against that course. At the same time Dr. Stiles expressed the hope that the Commission would dispose of this case at their meeting due to be held at Lisbon later that year. In doing so, Dr. Stiles drew attention to the procedure prescribed by the International Congress of Zoology for dealing with cases involving proposals for the suspension of the *Règles* where it had been found impossible to secure a unanimous vote in the Commission on the action to be taken under the Plenary Powers Resolution (Article 2).

8. Prior to the opening of the Lisbon Session of the Commission, Commissioner Karl Jordan voted in favour of the suspension of

⁴ For the text of this Resolution, see *Declaration 5* (1943, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* **1** : 31-40).

⁵ When first published, this name through some inadvertence was printed as *Greisbachoceras*, but in view of the fact that this name was intended to commemorate the name of Griesbach, the author in 1880 of the name *Ophiceras*, the spelling intended was clearly *Griesbachoceras*. This emendation was published by Dr. L. F. Spath in 1934 (*Cat. foss. Ceph. Brit. Mus.* **4** : 72).

the *Règles* in this case, thereby bringing the voting to ten (10) in favour to three (3) against.

9. At the Lisbon Session of the Commission, the available documents relating to this case and to the related case of *Lytoceras* Suess, 1865, were examined by Commissioner Francis Hemming, who, jointly with Commissioner James L. Peters, had been charged with the duty of acting as Secretary to the Commission during that Session, owing to the absence through ill-health of Dr. Stiles. The conclusions so reached by Commissioner Hemming are set out in the following note made in the records of the Commission:—

Of the 18 specialists who have expressed their view on the question whether the name *Ophiceras* Suess, 1865, should be suppressed for the purpose of (i) validating its synonym *Lytoceras* Suess, 1865, and (ii) validating its homonym *Ophiceras* Griesbach, 1880, all have expressed themselves as being in favour of course (i); 15 of these specialists (United States 11; United Kingdom 2; Germany 1; and Denmark 1) were in favour also of course (ii), while 3 (United States 1; United Kingdom 1; and Denmark 1) hold the opposite view. Two of these specialists (United States 1; United Kingdom 1) give as the ground for their view the fact that the name *Ophiceras* Suess, 1865, has been noted in Nomenclators (*e.g.* in Marshall, 1873, *Nomencl. zool.*: 130) and so have passed into the literature. The third (Danish) specialist merely states that, in his view, the suspension of the *Règles Internationales* in favour of *Ophiceras* Griesbach "would be unfortunate."

2. After studying carefully the evidence submitted in regard both to this case and to that of *Ophiceras* Suess, 1865, and *Lytoceras* Suess, 1865, I have come to the conclusion that the petitioner has established his case that the strict application of the *Règles* for these names would clearly result in greater confusion than uniformity and accordingly that the proper course for the Commission to adopt is to use their plenary powers to suppress the name *Ophiceras* Suess, 1865, thereby (a) validating the name *Lytoceras* Suess, 1865, at present invalid as a synonym, and (b) validating *Ophiceras* Griesbach, 1880, at present an invalid homonym.

3. The only argument brought forward against this course is not an argument directed to show that it would be reasonable and proper to suppress *Ophiceras* Suess, 1865, for one purpose, while retaining it for another. It is an argument which, if valid, would render the suspension of the *Règles* to preserve *Lytoceras* Suess as unacceptable as the suspension of the *Règles* to preserve *Ophiceras* Griesbach, for the name *Ophiceras* Suess is as much, or as little, embodied in the literature for one purpose as for the other.

4. Quite apart from the effect which its application would have on the two cases under consideration, the argument advanced against the suspension of the *Règles* in this case, if accepted as a general principle (as would certainly be necessary), would have the effect of debarring the International Commission from exercising their plenary powers to suppress any name which, after publication, had appeared in a Nomenclator or Catalogue. This would amount to the virtual abandonment of the power to suppress names at all, since practically every name figures in one or more of the catalogues of the group concerned. The Commission have already given their answer to the general question here involved by unanimously agreeing during the present (Lisbon) Session to suppress a considerable number

of names in the Order Hymenoptera,⁶ all of which figure in the principal Nomenclators as well as in the catalogues of species of that Order. The only argument advanced against the grant of the petition in this case is, therefore, one which has already been rejected by the Commission.

5. I consider therefore that the present petition should be granted and, in view of the fact that some of the Commissioners who have cast negative votes are not present in Lisbon, I recommend that the Commission should invoke the special procedure prescribed in the second paragraph of the Plenary Powers Resolution.⁷

10. By the time, therefore, that on Tuesday, 17th September 1935, the Commission came to consider this case, fourteen (14) Commissioners had voted on it.

11. Eleven (11) Commissioners had voted in favour of the suspension of the *Règles* to preserve *Ophiceras* Griesbach, 1880, namely:—

Apstein; Bather; Chapman; Hemming; Horváth; Ishikawa; Jordan; Pellegrin; Richter; Stephenson; and Stiles.

12. Three (3) Commissioners had voted against the suspension of the *Règles* in this case, namely:—

Cabrera; Silvestri; and Stone.

13. At the meeting referred to above, the Commission had under consideration this case, jointly with that of *Ophiceras* Suess, 1865, and *Lytoceras* Suess, 1865, and after taking note of the voting in each of these cases (Lisbon Session, 4th Meeting, Conclusion 13)⁸:—

(b) agreed that the proper course as regards *Ophiceras* Griesbach was to proceed under Article 2⁹ of the Plenary Powers Resolution adopted by the Ninth International Congress of Zoology at Monaco in March 1913;

(c) agreed, in view of (b) above, to report the case of *Ophiceras* Griesbach, 1880, to the President of the Section on Nomenclature of the present (Lisbon) Congress for action under the said Article 2 of the Resolution of March 1913.

14. This case was accordingly reported to the President of the Section on Nomenclature of the Twelfth International Congress of Zoology immediately after the meeting of the Commission referred to above.

15. Various causes, including the resignation of the Secretaryship of the Commission by Dr. Stiles and the consequent need for

⁶ See Official Record of the Proceedings of the International Commission on Zoological Nomenclature, Lisbon Session, 3rd Meeting, Conclusion 2 (1943, *Bull. zool. Nomencl.* 1 : 27-30).

⁷ See footnote 4.

⁸ For the full text of this Conclusion, see 1943, *Bull. zool. Nomencl.* 1 : 39.

⁹ See footnote 4.

the establishment of the Secretariat of the Commission at new headquarters, combined to make it impossible to secure any further progress in this case before the outbreak of war in Europe in September 1939 put a temporary stop to the activities of the Commission. When, however, it was found possible in the spring of 1942 to arrange for the reopening of the Secretariat of the Commission, this case was reviewed jointly by the President of the Commission and the Secretary to the Commission, who agreed that, having regard to the length of time which this case had already been before the Commission, every effort should be made to secure the services of a former member of the Commission who had not expressed any public opinion on this case and thereby render possible the immediate appointment of the required Board of Three Members for the purpose of deciding the action to be taken in this case.

16. On being approached, Sir Peter Chalmers Mitchell, a former member of the Commission who had expressed no public opinion on this case, consented to assist the Commission by serving as a member of the proposed Board of Three Members. Accordingly on 30th December 1942, Dr. Karl Jordan, President of the Section on Nomenclature of the Twelfth International Congress of Zoology, acting in virtue of the powers conferred upon him in this behalf by Article 2 of the Plenary Powers Resolution adopted by the Ninth International Congress of Zoology at its meeting held at Monaco on 31st March 1913, appointed a Board of Three Members composed as follows :—

- | | |
|-----------------------------|---|
| Sir Peter Chalmers Mitchell | Former member of the International Commission on Zoological Nomenclature, who had expressed no public opinion on the present case ; |
| Dr. Karl Jordan | A Commissioner who had voted in favour of the suspension of the <i>Règles Internationales</i> in this case ; and |
| Señor Dr. Angel Cabrera | A Commissioner who had voted against the suspension of the <i>Règles Internationales</i> in this case. |

17. The terms of reference given to the foregoing Board of Three Members were as follows :—

- (i) to review the evidence submitted to the International Commission on Zoological Nomenclature for and against the suspension of the *Règles Internationales* in the case of the name *Ophiceras* Griesbach, 1880; and
- (ii) to report whether or not an *Opinion* should be rendered:—
 - (a) suspending the *Règles*:—
 - (1) to suppress the name *Ophiceras* Suess, 1865, and
 - (2) to validate the name *Ophiceras* Griesbach, 1880 (type: *Ophiceras tibeticum* Griesbach, 1880) (Mollusca); and
 - (b) placing the name *Ophiceras* Griesbach, 1880, so validated, on the *Official List of Generic Names in Zoology*.

18. The following reports on this case were received from the members of the Board of Three constituted by the President of the Twelfth International Congress of Zoology in the manner specified in paragraph 16 above:—

(1) *Report by the former Commissioner, Sir Peter Chalmers Mitchell (dated 13th November 1943):*

After having given careful consideration to the evidence and arguments adduced by the many specialists of whose opinion Commissioner Hemming has given me a clear summary, I report that an *Opinion* should be rendered (a) suspending the rules (i) to suppress the name *Ophiceras* Suess, 1865, and (ii) to validate the name *Ophiceras* Griesbach, 1880 (type: *Ophiceras tibeticum* Griesbach, 1880) (Mollusca); and (b) placing the name *Ophiceras* Griesbach, 1880, so validated, on the *Official List of Generic Names in Zoology*.

(2) *Report by Commissioner Karl Jordan (dated 12th December 1943):*

The case of *Ophiceras* has been considered again by me and I see no argument which would change my vote given at Lisbon. I agree therefore that the rules be suspended, *Ophiceras* Suess be suppressed and *Ophiceras* Griesbach, 1880 (type: *O. tibeticum* Griesbach, 1880) be validated and placed on the *Official List of Generic Names in Zoology*.

19. Under Article 2 of the Plenary Powers Resolution, a Report by a Board of Three Members set up under the procedure prescribed in that Resolution may be either unanimous or taken by an affirmative vote of any two of the members of such a Board. Accordingly, as from the date of receipt (14th December 1943) of the second of the two votes cast in favour of the suspension of the *Règles Internationales* for the purpose of validating the name

Ophiceräs Griesbach, 1880 (*i.e.* as from the date of receipt of Commissioner Jordan's vote), an effective decision had already been taken by the Board of Three Members in favour of that course. The present case was not, however, closed on that date, since the Secretary to the Commission judged it better to allow ample time for the receipt of the vote of the third Member of the Board, even though (for the reasons explained above) that vote could not in any circumstances alter the decision already taken by the Board. At that time, there was, owing to war conditions, great delay in postal communications between the United Kingdom (the seat of the Secretariat of the Commission) and Argentina (the place of residence of Commissioner Cabrera, the third Member of the Board). Accordingly, the Secretary to the Commission directed that this case should not be finally closed until after the expiry of a period of eighteen months calculated from 31st October 1943, the date on which the evidence relating to the present case was despatched to each of the Members of the Board. No reply was, however, received from Commissioner Cabrera during the foregoing period. On 1st May 1945, the day following the expiry of that period, this case was, therefore, reviewed by the Secretary to the Commission, who concluded that the communication addressed to Commissioner Cabrera must have been lost in the post owing to war conditions. At the same time, the Secretary to the Commission took note that under the procedure prescribed by the Plenary Powers Resolution a final decision had been reached in this case as far back as 14th December 1943, the date on which, by reason of Commissioner Jordan's vote, two votes in favour of the suspension of the *Règles Internationales* in the present case had been received in the Secretariat from Members of the Board of Three Members. Accordingly, on 1st May 1945, Commissioner Francis Hemming, Secretary to the International Commission, acting in virtue of the powers conferred upon him in that behalf by reason of holding the said Office of Secretary to the Commission, closed the ballot in this case.

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

20. The decision taken by the International Commission on Zoological Nomenclature in the present case is :—

- (a) under suspension of the *Règles Internationales* :—

- (i) to suppress for all nomenclatorial purposes the name *Ophiceras* Suess, 1865, *Anz. Akad. Wiss. Wien* 2 (No. 17) : 112 (Class Cephalopoda, Order Ammonoidea); and
 - (ii) to validate the name *Ophiceras* Griesbach, 1880. *Rec. geol. Surv. Ind.* 13 : 102, 109 (type : *Ophiceras tibeticum* Griesbach, 1880, *Rec. geol. Surv. Ind.* 13 : 109 pl. 3 fig. 4) (Class Cephalopoda, Order Ammonoidea); and
- (b) to add the name *Ophiceras* Griesbach, 1880, validated as in (a) above and with the type there specified, to the *Official List of Generic Names in Zoology*.

21. The foregoing decision was taken by the International Commission on Zoological Nomenclature, acting through a Board of Three Members constituted in accordance with the provisions of Article 2 of the Plenary Powers Resolution of March 1913.¹⁰

22. The following two (2) members of the Board of Three Members voted in favour of the adoption of the present *Opinion* :— Mitchell; Jordan.

23. No member of the Board of Three Members voted against the present *Opinion*. No vote was received from Commissioner Cabrera, the third member of the Board.

IV.—AUTHORITY FOR THE ISSUE OF THE PRESENT OPINION.

WHEREAS the Ninth International Congress of Zoology at its meeting held at Monaco in March 1913, adopted a Resolution conferring upon the International Commission on Zoological Nomenclature, Plenary Powers to suspend the *Règles Internationales de la Nomenclature Zoologique* as applied to any given case where, in the judgment of the Commission, the strict application of the *Règles* would clearly result in greater confusion than uniformity, provided either that after due advertisement of the possible suspension of the *Règles* as applied to the said case the members of the Commission were unanimously in favour of that course or that, in default of unanimity, a Board of Three Members duly constituted in accordance with the provisions of Article 2 of the Resolution of March 1913 referred to above (hereinafter referred to as the "Plenary Powers Resolution"), acting for the said

¹⁰ See footnote 4.

International Commission, decided, either unanimously or by a majority, in favour of the suspension of the *Règles* as applied to the case so referred to it for decision; and

WHEREAS the suspension of the *Règles* is required to give valid force to the provisions of the present *Opinion* as set out in the summary thereof; and

WHEREAS in default of unanimity regarding the decision to be taken as respects the names dealt with in the present *Opinion*, the International Commission agreed unanimously at their Session held at Lisbon in 1935 that this case should be decided by a Board of Three Members constituted in accordance with the provisions of Article 2 of the Plenary Powers Resolution; and

WHEREAS the Board of Three Members duly constituted to consider this case has agreed that an *Opinion* should be rendered by the International Commission on Zoological Nomenclature in the sense of the present *Opinion* :

NOW, THEREFORE,

I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, acting in virtue of all and every the powers conferred upon me in that behalf by reason of holding the said Office of Secretary to the International Commission, hereby announce the said *Opinion* on behalf of the International Commission, acting for the International Congress of Zoology, and direct that it be rendered and printed as *Opinion* Number One Hundred and Ninety Four (*Opinion* 194) of the said Commission.

In faith whereof I, FRANCIS HEMMING, Secretary to the International Commission on Zoological Nomenclature, have signed the present *Opinion*.

DONE in London, this twenty-ninth day of October, Nineteen Hundred and Forty-Five, in a single copy, which shall remain deposited in the archives of the International Commission on Zoological Nomenclature.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING.

THE PUBLICATIONS OF THE COMMISSION.

(obtainable at the Publications Office of the International Trust for Zoological Nomenclature at 41, Queen's Gate, London, S.W. 7.)

Opinions and Declarations Rendered by the International Commission on Zoological Nomenclature.

The above work is being published in three volumes concurrently, namely :—

Volume 1. This volume will contain *Declarations* 1–9 (which have never previously been published) and *Opinions* 1–133 (the original issue of which is now out of print). In order that the volume, when bound, may be of a convenient size for handling, it has been decided to divide it into a series of Sections, which will be continuously paged but will each be supplied with a title page and index. It is at present contemplated that the first of these Sections (Section A) will comprise *Declarations* 1–9 and *Opinions* 1–16. Part 17 containing the index and title page for Section A will be published as soon as possible. The publication of Parts of Section B will be started immediately thereafter.

Parts 1–25 (comprising *Declarations* 1–9 and *Opinions* 1–16) have now been published. Further Parts are in the press and will be published as soon as possible.

Volume 2. This volume will contain *Declarations* 10–12 and *Opinions* 134–181 and will thus be a complete record of all the decisions taken by the International Commission on Zoological Nomenclature at their meeting held at Lisbon in 1935. This volume will be published in two Sections, which will be continuously paged but will each be supplied with a title page and index.

Section A, comprising *Declarations* 10–12 and *Opinions* 134–160 (published in Parts 1–30 and 30 A), is now complete, price £4 4s. 0d. Individual Parts of this Section are also obtainable separately at the prices at which they were originally published.

Section B will comprise *Opinions* 161–181 (to be published in Parts 31–52). Parts 31–51 (containing *Opinions* 161–181) have now been published and it is hoped that Part 52 containing the index and title page will be issued at an early date.

Volume 3. This volume, which commenced with *Opinion 182*, will contain the first instalment of the *Opinions* adopted by the International Commission since their Lisbon meeting. Parts 1-13 (containing *Opinions 182-194*) have now been published. Further Parts will be published as soon as possible.

Bulletin of Zoological Nomenclature.

This journal was established by the International Commission on Zoological Nomenclature in 1943 as their Official Organ in order to provide a medium for the publication of :—

- (a) proposals on zoological nomenclature submitted to the International Commission for deliberation and decision ;
- (b) comments received from, and correspondence by the Secretary with, zoologists on proposals published in the *Bulletin* under (a) above ; and
- (c) papers on nomenclatorial implications of developments in taxonomic theory and practice.

Parts 1-10 of volume 1 have now been published. Further Parts are in the press and will be published as soon as possible.

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11

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

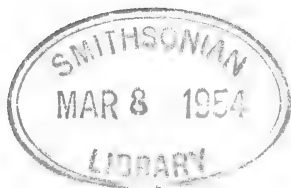
Edited by

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

VOLUME 3. Part 14. Pp. 191—198

OPINION 195

Designation, under the Plenary Powers, of a type species for the genus *Venus* Linnaeus, 1758 (Class Pelecypoda) in harmony with accustomed usage



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 195

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

Senor Dr. Angel CABRERA (*La Plata, Argentina*).

Mr. Francis HEMMING (*London, England*) (*Secretary to the Commission*).

Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).

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Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

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Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

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Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 195

DESIGNATION, UNDER THE PLENARY POWERS, OF A TYPE SPECIES FOR THE GENUS "VENUS" LINNAEUS, 1758 (CLASS PELECYPODA) IN HARMONY WITH ACCUSTOMED USAGE

RULING :—(1) Under the Plenary Powers all selections of type species for the genus *Venus* Linnaeus, 1758 (Class Pelecypoda) made prior to the present Ruling are hereby set aside and *Venus verrucosa* Linnaeus, 1758, is hereby designated to be the type species of the foregoing nominal genus. (2) The name *Venus* Linnaeus, 1758 (gender of name: feminine), with the type species designated in (1) above, is hereby placed on the *Official List of Generic Names in Zoology* as Name No. 626. (3) The specific name *verrucosa* Linnaeus, 1758, as published in the combination *Venus verrucosa*, is hereby placed on the *Official List of Specific Names in Zoology* as Name No. 1.

I.—THE STATEMENT OF THE CASE

On 23rd May 1945 the International Commission on Zoological Nomenclature received from Dr. Joshua L. Baily, Jr. (*Natural History Museum, Balboa Park, San Diego, California, U.S.A.*) a letter dated 6th April 1945, in which Dr. Baily raised two questions, the first concerned with the type species of the genus *Venus* Linnaeus, 1758 (Class Pelecypoda), the second with the type species of the genus *Bulla* Linnaeus, 1758 (Class Gastropoda). These two problems were given separate Registered Numbers, the first being assigned the Number Z.N.(S.)189, the second the Number Z.N.(S.)190. Thereafter these two problems were treated as constituting separate applications. The following is an extract from that part of Dr. Baily's letter which is concerned with the name *Venus* Linnaeus, 1758 :—

Please give me the benefit of your assistance on the following cases.

1. *Venus* Linnaeus, 1758

According to Stewart (1930, *Spec. Publ. Acad. nat. Sci. Philad.*, No. 3) the earliest type designation for this genus was *Venus dione* Linnaeus. In the 10th edition of the *Systema Naturae*, Rumphius is quoted as having designated this species as "die rechte Venus", etc. and later Müller and also Chemnitz both referred to it as "die aechte Venus", and throughout the 18th century this usage was consistently followed. But in 1799 Lamarck (*Mém. Soc. Hist. nat. Paris* 1799 : 84) cited *Venus mercenaria* Linnaeus as an example, and in 1801 (*Syst. Anim. s. Vert.*) he cited *Venus verrucosa* Linnaeus. These two species differ widely from *Venus dione*, but they are fairly closely related to each other.

Neither of these citations by Lamarck can be considered a type designation, but so great was the weight of Lamarck's authority that the earlier designation of *Venus dione* has been completely neglected by all subsequent writers. Today the family VENERIDAE is divided up into several sub-families, and the name *Venus* is universally applied to a group of species of a different sub-family from that to which *Venus dione* belongs. To restore the name *Venus* to the group typified by *Venus dione* would result in so much confusion that no systematic malacologist would recommend such a step, so far as I know.

If the original designation of *Venus dione* as type should be invalidated by the International Commission, the question will then arise as to what species of *Venus* is the type. The next valid designation was by Gray, 1847 (*Proc. zool. Soc. Lond.*, 1847 : 183) who chose *Venus verrucosa*. In the meantime, several other types have been designated, but according to Stewart (*loc. cit.* : 217) these designations are all invalid. Finally, in 1886 Fischer (*Man. de Conchyl.*) designated *Venus mercenaria*, and this usage was followed by Dall (*Trans. Wagner Free Inst. Sci.* 3 (pt. 6) : 1306) in 1903. Most writers have followed Dall, except that Stewart (*loc. cit.* : 216) and Grant and Gale (*Mem. San Diego Soc. nat. Hist.* 1 : 316) in 1931 have used *Venus verrucosa* on the ground that Gray's designation was older than Fischer's. If these two species alone were involved there would be no question as to the priority of *Venus verrucosa* as type, but as the designations of both of them were subsequent to the older one of *Venus dione*, neither *Venus verrucosa*, nor *Venus mercenaria* can be established as type without the plenary suspension of the Rules by the International Commission. Of the two my own personal preference would be for *Venus mercenaria*, for the following reason :

In 1811 Megerle established the genus *Chione*. The type of this group was designated by Gray (*loc. cit.*) as *Venus dysira* Chemnitz = *Venus cancellata* Linnaeus, 1767 (*Syst. Nat.* (12th ed.) 1 : 1191). No one has ever questioned either this genus or its type designation. It is probably the largest genus (in the number of its species) in the family. It is universally distributed. In many localities several species are found living together. But the type species, *Chione*

cancellata so closely resembles *Venus verrucosa* that they are probably not more than sectionally distinct, and if *Venus verrucosa* be constituted the type of *Venus*, that name must be used for the multiplicity of species now called *Chione*.

On the other hand *Venus mercenaria* is well suited to be a type. It is widespread, it is very plentiful, and probably the largest species of the family. It is the basis of clam chowder, for which reason it is widely known even among those who are not trained malacologists.

In view of the foregoing data, I would request that you exercise your Plenary Powers of suspending the Rules to declare the designation of *Venus dione* as type *Venus* invalid, and that you designate in place thereof either *Venus verrucosa* or *Venus mercenaria*, as may seem best to you.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. On receipt of the present application, Mr. Francis Hemming, Secretary to the International Commission, consulted the late Mr. R. Winckworth (*London*) who, on 15th December 1945, replied as follows, strongly supporting the acceptance of *Venus verrucosa* Linnaeus, 1758, as the type species of the genus *Venus* Linnaeus, 1758 :—

Venus Linnaeus, 1758 : Linnaeus does not quote the words “ die achte Venusmuschel ” but merely gives the reference to Rumph’s figure as “ Rumph. mus. t.48.f.4 ”. If however this be considered sufficient to make *Venus dione* Linnaeus the type species of *Venus* Linnaeus, the resulting confusion in the nomenclature of the VENERIDAE would be very great. Equally disastrous would be the choice of *Venus erycina* Linnaeus as type species by tautonymy : *Erycina* was a name of *Venus* under which she was worshipped at Rome.

I should strongly support taking the first valid type selection, namely that of *Venus verrucosa* Linnaeus, 1758, made by Gray (1847), which has been widely accepted.

3. On 14th November 1947 notice of the possible use, by the International Commission on Zoological Nomenclature, of the Plenary Powers in the present case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the action proposed.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

4. The present application was considered by the International Commission on Zoological Nomenclature at the Eleventh Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 0930 hours. The following is an extract from the Official Record of the Proceedings of the International Commission setting out the decision reached by it in regard to this case at the foregoing meeting (Paris Session, 11th Meeting, Conclusion 28) (1950, *Bull. zool. Nomencl.* 4 : 304—305) :—

THE COMMISSION agreed :—

- (1) to use their plenary powers to set aside all selections of the type species of the genus *Venus* Linnaeus, 1758 (Class Pelecypoda, Order Eulamellibranchia), made prior to the present decision and to designate *Venus verrucosa* Linnaeus, 1758, to be the type species of this genus ;
- (2) to place the generic name *Venus* Linnaeus, 1758 (type species : *Venus verrucosa* Linnaeus, 1758), on the *Official List of Generic Names in Zoology* ;
- (3) to place the specific trivial name *verrucosa* Linnaeus, 1758 (as published in the binominal combination *Venus verrucosa*), on the *Official List of Specific Trivial Names in Zoology* ;
- (4) to render an *Opinion* setting out the decisions specified in (1) to (3) above.

5. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

Venus Linnaeus, 1758, *Syst. Nat.* (ed.10) 1 : 684

Verrucosa, *Venus*, Linnaeus, 1758, *ibid.* (ed.10) 1 : 685

6. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Third Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* **5** : 94).

7. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

8. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

9. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and the *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

10. 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.

11. The present *Opinion* shall be known as *Opinion One Hundred and Ninety-five (195)* of the International Commission on Zoological Nomenclature.

DONE in London this Ninth day of November, Nineteen Hundred and Fifty-Three.

*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 3, Part 15. Pp. 199—206

OPINION 196

Designation, under the Plenary Powers, of a type species for the genus *Bulla* Linnaeus, 1758 (Class Gastropoda) in harmony with accustomed usage



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 196

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

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Class 1949

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Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

Class 1952

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Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*).

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Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

Class 1955

Professor Dr. Hilbrand BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*).

Dr. William Thomas CALMAN (*Tayport, Fife, Scotland*).

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*).

Professor Béla HANKÓ (*University of Debrecen, Hungary*).

Dr. Tadeusz JACZEWSKI (*Polish Zoological Museum, Warsaw, Poland*).

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).

Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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Dr. Henning LEMCHE (*Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark*).

Professor Kamel MANSOUR (*King Fouad University, Cairo, Egypt*).

Professor Z. P. METCALF (*North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.*).

Mr. N. D. RILEY (*British Museum (Natural History), London, England*).

Professor Ragnar SPÄRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 196

DESIGNATION, UNDER THE PLENARY POWERS, OF A TYPE SPECIES FOR THE GENUS "BULLA" LINNAEUS, 1758 (CLASS GASTROPODA) IN HARMONY WITH ACCUSTOMED USAGE

RULING :—(1) Under the Plenary Powers all selections of type species for the genus *Bulla* Linnaeus, 1758 (Class Gastropoda) made prior to the present Ruling are hereby set aside and *Bulla ampulla* Linnaeus, 1758, is hereby designated to be the type species of the foregoing nominal genus. (2) The name *Bulla* Linnaeus, 1758 (gender of name: feminine), with the type species designated in (1) above, is hereby placed on the *Official List of Generic Names in Zoology* as Name No. 627. (3) The specific name *ampulla* Linnaeus, 1758 (as published in the combination *Bulla ampulla*) is hereby placed on the *Official List of Specific Names in Zoology* as Name No. 2.

I.—THE STATEMENT OF THE CASE

On 23rd May 1945 the International Commission on Zoological Nomenclature received from Dr. Joshua L. Baily, Jr. (*Natural History Museum, Balboa Park, San Diego, California, U.S.A.*) a letter dated 6th April 1945, in which Dr. Baily raised two questions, the first concerned with the type species of the genus *Venus* Linnaeus, 1758 (Class Pelecypoda), the second with the type species of the genus *Bulla* Linnaeus, 1758 (Class Gastropoda). These two problems were given separate Registered Numbers, the first being assigned the number Z.N.(S.)189, the second the Number Z.N.(S.)190. Thereafter these two problems were treated as constituting separate applications. The first of these cases has now been dealt with in *Opinion* 195, and the present *Opinion* is concerned only with the name *Bulla* Linnaeus, 1758. The following is an extract from the part of Dr. Baily's letter which is concerned with the present case.

Please give me the benefit of your assistance on the following cases.

2. *Bulla* Linnaeus, 1758

According to Dr. Harold E. Rehder of the U.S. National Museum, the original type of this genus is *Bulla naucum* Linnaeus, following Article 30, Rule (d) and *Opinions* 16 and 55. Linnaeus gives as reference "Rumph. mus. t. 27 f. h. *Bulla*".

In a letter to me, Dr. Rehder states as follows :

"Referring to Rumphius we find that he used 'Bulla' as a specific name, including under it three forms, to one of which, Linné, quite properly restricted it, citing it under *Bulla naucum* in the sense of 'the Bulla'. We have therefore a parallel to cases cited in the opinions above, and the designation of *Bulla naucum* as type is valid".

The trouble with this designation is that it has been completely ignored by all subsequent writers, and *Bulla naucum* has always been considered the type of *Atyis* Montfort, and *Bulla* has always been used for the group typified by *Bulla ampulla*.

If the International Commission should suspend the type designation of *Bulla naucum* the next designation was by Montfort, 1810 (*Conch. Syst.* 2 : 330—2), who chose *Bulla ampulla* as type. Some writers have questioned the validity of this designation on the ground that Montfort called the genus "Bullus". If Montfort intended to establish a new genus, as may have been his intention, his designation of a type for *Bullus* cannot be construed as designation of a type for *Bulla*, but if he was merely emending the name so that *Bullus* and *Bulla* are synonyms, the first type designation for either one becomes the type of both, and in this case Montfort's designation of *Bulla ampulla* will hold. Among my acquaintances there is divergency of opinion on this point.

If the International Commission should decide that Montfort's designation is not valid, the next designation is that of Children 1823 (*Quart. J. Sci. Lit. Arts* 5 : 232), who chose *Bulla lignaria* Linnaeus, which species had already been made the type of *Scaphander* Montfort, 1810 (*loc. cit.*) by Montfort himself, and all subsequent writers have followed this practice.

To accept as type of *Bulla* either *Bulla naucum* or *Bulla lignaria* would necessitate the shifting of the name *Bulla* from a group for which it has been universally used (even if wrongly) to a group which has long been known by a different name and cannot result in anything but confusion at first. But if such a change must be made, it can best be done after the International Commission has issued an *Opinion*.

In view of the foregoing data I would request that you exercise your plenary powers to suspend the Rules and declare the type of *Bulla* to be *Bulla ampulla*. Such a course would not only avoid the confusion that would result from the shifting of a familiar name, but it would make *Bulla* and *Bullus* identical synonyms and so preclude the possibility of having two genera, *Bulla* and *Bullus*, and consequently two families called BULLIDAE within the same Sub-Order.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. On receipt of this application, Mr. Francis Hemming, Secretary to the International Commission, placed the following Minute on the File :—

Dr. Baily in his application is concerned only with the name *Bulla* as used by Linnaeus (1758, *Syst. Nat.* (ed. 10) 1 : 725) for a genus of Gastropoda and makes no mention of Linnaeus' earlier use in the same volume (: 427) of the term *Bulla* for a subdivision of the genus *Gryllus* Linnaeus (: 425) (Class Insecta, Order Orthoptera).

In so acting, Dr. Baily is perfectly correct, but, as it is likely that in the discussion of the Gastropod name *Bulla*, reference may be made to the earlier Orthopterid *Bulla*, it seems desirable that the position in this matter should be placed on record as follows : In different parts of the Tenth Edition of the *Systema Naturae* Linnaeus divided genera into named sections. On the whole, these names have been ignored by most subsequent authors, though certain of these names (e.g. *Mantis*, *Locusta*) have been universally accepted. This lack of uniformity sprang largely from doubts among systematists on the question whether Linnaeus intended that the terms which he applied to these sections should be regarded as names, having regard to the fact that the publication of the Tenth Edition of the *Systema Naturae* long preceded the formulation of the concept of the sub-genus. In the year 1928, the International Commission on Zoological Nomenclature was asked for a formal ruling on the question whether the terms under consideration were to be accepted as being names of sub-generic status as from Linnaeus, 1758. This question was answered in the negative by the International Commission on Zoological Nomenclature in its *Opinion* 124 published in October 1936 (*Smithson. misc. Coll.* 73 (No. 8 : 1—2). In this *Opinion*, the Commission expressly cited, as an example, the double use made by Linnaeus of the word *Bulla*, pointing out that under the ruling then given the earlier of these uses (in the Orthopterous genus *Gryllus*) was invalid, and therefore that the name *Bulla* Linnaeus, 1758, in the Phylum Mollusca was an available name.

3. As the next step, Mr. Hemming consulted the late Mr. R. Winckworth (*London*) who, on 15th December 1945, replied as follows, strongly supporting the use of the Plenary Powers for the purpose of designating *Bulla ampulla* Linnaeus, 1758, as the type species of the genus *Bulla* Linnaeus, 1758 :—

It may be noted that both *Bulla ampulla* L. and *B. naucum* L. have references to Rumph's figures (27G and 27H) and that both of these are called "Bulla" by Rumph, though Linnaeus only quotes the word *Bulla* from Rumph under *B. naucum*, which precedes *B. ampulla* in Linnaeus, but is the second kind (tweede Sort) of *Bulla* in Rumph.

It would be disastrous to disturb the almost unbroken tradition of binominal literature, which associates *Bulla* with the group typified by *B. ampulla*, by accepting *B. naucum* as type. I strongly support the proposal to place *Bulla* L., 1758 on the Official List with *B. ampulla* L. as type.

4. On 14th November 1947 notice of the possible use, by the International Commission on Zoological Nomenclature, of its Plenary Powers in this case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the action proposed.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

5. The present application was considered by the International Commission on Zoological Nomenclature at the Eleventh Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 0930 hours. The following is an extract from the portion of the Official Record of the Proceedings of the International Commission setting out the decision reached by it in regard to this case at the foregoing meeting (12th Meeting, Conclusion 29 (1950, *Bull. zool. Nomencl.* 4 : 305) :—

THE COMMISSION agreed :—

- (1) to use their plenary powers to set aside all selections of the type species of the genus *Bulla* Linnaeus, 1758 (Class Gastropoda, Order Bullomorpha), made prior to the present decision and to designate *Bulla ampulla* Linnaeus, 1758, to be the type species of this genus ;
- (2) to place the generic name *Bulla* Linnaeus, 1758 (type species : *Bulla ampulla* Linnaeus, 1758), on the *Official List of Generic Names in Zoology* ;

(3) to place the specific trivial name *ampulla* Linnaeus, 1758 (as published in the binominal combination *Bulla ampulla*) on the *Official List of Specific Trivial Names in Zoology* ;

(4) to render an *Opinion* setting out the decisions specified in (1) to (3) above.

6. The following are the original references for the names which appear in the decision set out in the decision quoted in the immediately preceding paragraph :—

Ampulla, *Bulla*, Linnaeus, 1758, *ibid.* (ed. 10) **1** : 727

Bulla Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 725

7. The gender of the generic name *Bulla* Linnaeus, 1758, referred to in the decision quoted in paragraph 5 is feminine.

8. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Third Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* **5** : 94).

9. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

10. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

11. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion

of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and the *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

12. 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.

13. The present *Opinion* shall be known as *Opinion One Hundred and Ninety-Six* (196) of the International Commission on Zoological Nomenclature.

DONE in London this Ninth day of November, Nineteen Hundred and Fifty-Three.

*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 3, Part 16. Pp. 207—216

OPINION 197

Suppression, under the Plenary Powers, of the generic name *Graptolithus* Linnaeus, 1768 (Class Graptolithina) and of the specific name *scalaris* Linnaeus, 1768, as published in the combination
Graptolithus scalaris



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 197

A. The Officers of the Commission

- President* : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History) Zoological Museum, Tring, Herts, England*).
- Vice-President* : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).
- Secretary* : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

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- Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 197

SUPPRESSION, UNDER THE PLENARY POWERS, OF THE GENERIC NAME "GRAPTOLITHUS" LINNAEUS, 1768 (CLASS GRAPTOLITHINA) AND OF THE SPECIFIC NAME "SCALARIS" LINNAEUS, 1768, AS PUBLISHED IN THE COMBINATION "GRAPTOLITHUS SCALARIS"

RULING :—(1) The following 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) the generic name *Graptolithus* Linnaeus, 1768 (Class Graptolithina), and (b) the specific name *scalaris* Linnaeus, 1768, as published in the combination *Graptolithus scalaris*. (2) The name *Graptolithus* Linnaeus, 1768, suppressed under (1) above, is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* as Name No. 1. (3) The specific name *scalaris* Linnaeus, 1768, as published in the combination *Graptolithus scalaris*, suppressed under (1) above, is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* as Name No. 1.

I.—THE STATEMENT OF THE CASE

Under cover of a letter dated 3rd July 1930, Dr. O. M. B. Bulman, Sc.D., F.R.S., then of the *Imperial College of Science and Technology (Royal School of Mines), South Kensington, London, S.W.7*, submitted to the International Commission on Zoological Nomenclature a memorandum containing several requests for the use of the Plenary Powers in relation to the names of Graptolites. One of the applications so submitted contained a request for the suppression of the generic name *Graptolithus* Linnaeus, 1768.

2. This application, as finally settled, was as follows :—

PROPOSED SUPPRESSION OF THE NAME *GRAPTOLITHUS*
LINNAEUS, 1768 (CLASS GRAPTOLITHINA, ORDER
GRAPTOLOIDEA¹)

By O. M. B. BULMAN, Sc.D., F.R.S.

(University Lecturer in Palaeozoology, Cambridge University)

(Commission's reference : Z.N.(S.)11)

The name *Graptolithus* was applied by Linnaeus in 1735 (*Syst. Nat.* (ed. 1) : [5]) and in 1768 (*ibid.* (ed. 12) 3 : 173) to what he regarded as inorganic markings (such as dendritic incrustations and "ruin-marble") simulating fossils, and when, in 1768, he included *Graptolithus sagittarius* and *G. scalaris*, these were considered to be of inorganic nature. The former species is possibly a fossil plant, and the latter probably a graptolite.

Graptolithus scalaris Linnaeus, 1768, was believed by Wahlenberg (1821, *Nov. Act. Soc. reg. Sci.*, Upsala 8 : 92) to be a Cephalopod, and was quoted under the generic title of *Orthoceratites* (*Orthoceratites* Gesner, 1758, *Tract. phys. Petrif.* : 42). Wahlenberg was thus the first to recognise its organic character.

The name *Priodon* was proposed, probably to include both Linnaeus' species, by Nilsson (MS., see Hisinger, 1831, *Esquisse Tabl. Petrif. sued.* (ed. 2) : 29). This name, being preoccupied by *Priodon* Cuvier, 1829, *Règn. anim.* (ed. 2) 2 : 225,² was later modified to *Prionotus* Nilsson (MS., see Hisinger, 1837, *Lethaea suec.* : 113), which, however, was also preoccupied (by *Prionotus* Lacépède, 1802, *Hist. nat. Poiss.* 3 : 336). *Prionotus* Nilsson MS. seems to have been regarded as a synonym of *Lomatoceras* Bronn, 1834, *Lethaea geogn.* 1(1) : 55 by Bronn (*ibid.* : 56), but both *Priodon* and *Prionotus* are more properly synonyms of *Graptolithus* Linnaeus, 1768, since they were employed by Hisinger to include *G. scalaris* Linnaeus and *G. sagittarius* Linnaeus. It is not clear why they were proposed, and they were never in general use ; for further discussion of the question, see Elles and Wood, 1902,

¹ The graptolites in the past have commonly been placed in the Class Hydrozoa of the Phylum Coelenterata. The systematic position of the group is, however, obscure and it has here been thought better, while provisionally retaining the graptolites in the Phylum Coelenterata, to treat this group as constituting a separate Class, Graptolithina. (int'd) F. H. 31st January 1945.

² Cuvier's manuscript name *Priodon* was first published by Quoy & Gaimard, 1824, in Freycinet, *Voy. "Uranie" et "Phys."* (Zool.) 1 : 377. In addition, the name *Priodon* Berthold, 1827, Latreille's *Fam. Thierr.* : 57, the name of a genus in the Class Mammalia, has priority over *Priodon* (Nilsson MS.) Hisinger, 1831.

Monogr. Brit. Grapt. (2) : vii, and Tullberg, 1882, *Bihang K. svensk. Vet.-Acad. Handl.* 6 (No. 13) : 7.

Graptolithus scalaris Linnaeus was selected by Beck (1839), in Murchison, *Silur. Syst.* 2 : 696) as the type of the genus *Graptolithus*. Barrande (1850, *Grapt. Bohême* : 34) considered it identical with *G. sagittarius* Linnaeus, but this was denied by Hall (1868, *20th Ann. Rep. N.Y. State Cab. nat. Hist.* : 228) who adhered to *G. scalaris* Linnaeus as the type.

It may probably be accepted that *Graptolithus scalaris* Linnaeus, 1768, was a real graptolite, and this was definitely selected as the type by Beck, but there is considerable uncertainty about the form, and *G. scalaris* Linnaeus is included only with a note of interrogation among the synonyms of *Climacograptus scalaris* (His.) by Elles and Wood (1906), *Monogr. Brit. Grapt.* (5) : 184). In view of the doubtful nature of the genolectotype and the clearly expressed intention of Linnaeus that the name was to denote inorganic objects, it is suggested that its use as a generic name be officially abandoned and that *Graptolithus* Linnaeus, 1768, be placed on the list of obsolete generic names.

II.—THE SUBSEQUENT HISTORY OF THE CASE

3. The memorandum furnished by Dr. Bulman in 1930 was communicated in December 1931 to the members of the International Commission on Zoological Nomenclature by the then Secretary (the late Dr. C. W. Stiles) in Circular Letter No. 221. This action led to the submission of the four comments on this case set out in the immediately following paragraphs.

4. *Comment by Lt. Col. J. Stephenson* : The following comment was furnished in a letter dated 5th March 1932 by Lt. Col. J. Stephenson, a Member of the International Commission :—

The authority to whom I should naturally have submitted the cases detailed in your Circular Letter 221 (Subject : Suspension, *Monograptus*, *Retiolites*, *Graptolithus*) is Dr. Bulman himself, who works within a stone's throw of this Museum [British Museum (Natural History)]. As he raises the cases, we may take it that we know his answer beforehand.

Captain A. K. Totton, the Assistant Keeper here in the Museum in charge of Coelenterata, informs me that he would himself have

no hesitation in taking Dr. Bulman's opinion ; and, having been through the cases myself as they are presented in your letter, I beg to give my own informal recommendation in the same sense also.

5. *Comment by Dr. F. A. Bather* : In a letter to Dr. Stiles, dated 21st March 1932, the late Dr. F. A. Bather (*Keeper, Department of Zoology, British Museum (Natural History)*) wrote : " I entirely agree with Bulman's proposals ".

6. *Comment by Dr. Gertrude L. Elles* : In a letter, dated 25th February 1932 (communicated by Dr. Bather), Dr. Gertrude L. Elles (*Sedgwick Museum, Cambridge University*) wrote :—

I am entirely in sympathy with Bulman's proposals. . . The term *Graptolithus* has for so long been regarded by all workers on the Graptolites as a mere waste-paper basket term that the sooner it disappears into oblivion the better !

7. *Comment by Dr. Karl Jordan* : In a letter dated 22nd May 1932, Dr. Karl Jordan (*Zoological Museum, Tring, Herts.*) wrote : "*Graptolithus* should be suppressed altogether as a name in zoology ".

8. The present case was placed on the Agenda for the Session of the International Commission then about to be held at Lisbon in Circular Letter 309, issued to the Members of the Commission in March 1935. Owing to the absence through ill-health of the Secretary (Dr. Stiles) and the fact that in consequence the papers relating to this case were not available in Lisbon, it was not possible for the International Commission to deal with this case on that occasion.

9. In 1938 the documents relating to this and other current cases were transferred to the care of Mr. Francis Hemming, who in October 1936 had been elected Secretary to the Commission on the retirement of Dr. Stiles. On receipt, the documents relating to this case were given the Registered Number Z.N.(S).11. It had not been found possible to make any further progress with this case when in September 1939 the records of the Commission were evacuated from London to the country as a precaution against the risk of destruction through air raids. The Secretariat

in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. After an exchange of correspondence between the Secretary and Dr. Bulman the terms of the present application were finally settled on 24th August 1944. This application was sent to the printer in September 1944, but, owing to paper rationing, shortage of labour at the printing works and similar causes it was not until 26th June 1946 that this application was actually published (Bulman, 1946, *Bull. zool. Nomencl.* 1 : 163—164). The publication of this application in the *Bulletin* elicited the comments set out in the three immediately following paragraphs.

10. Comment by Dr. Th. Mortensen : In a letter dated 20th April 1947, the late Dr. Th. Mortensen (*Universitetets Zoologisk Museum, Copenhagen*) wrote as follows :—

Graptolithus. Though—perhaps—not be used as a generic name, *Graptolithus* ought, I think, to be preserved as a more general term, since it would be rather paradoxical to have an Order Graptolithoidea, if we have not a name *Graptolithus*.

11. Comment by Dr. Charles E. Decker : On 13th June 1947, Dr. J. Brookes Knight (*Research Associate in Paleontology, United States National Museum, Washington, D.C., U.S.A.*) at that time Chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America, wrote : “As Chairman, I called these propositions to the attention of Dr. Rudolf Ruedemann and Dr. Charles E. Decker, the two recognized American authorities on the Graptolites. I enclose the originals of their replies”. The comment by Dr. Decker (*University of Oklahoma, Norman, Oklahoma, U.S.A.*) on the present case was given in a letter dated 2nd August 1946, the relevant portion of which reads as follows : “In response to your enquiry I would say that the name *Graptolithus* should be suppressed, as definite generic terms have been given to all forms to which it was formerly applied”.

12. *Comment by Dr. Rudolf Ruedemann*: In a letter dated 29th November 1946, Dr. Rudolf Ruedemann (*Albany, N.Y., U.S.A.*) wrote :—" In answer to your question I may say that I fully agree with the proposed suppression of the name *Graptolithus* . . . ".

13. On 14th September 1947 a notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the action proposed.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

14. The present application was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 17.30 hours. The following is an extract from the portion of the Official Record of the Proceedings of the International Commission, setting out the decision reached by it in regard to this case at the foregoing meeting (Paris Session, 13th Meeting, Conclusion 21) (1950, *Bull. zool. Nomencl.* 4 : 377) :—

THE COMMISSION agreed :—

- (1) to use their plenary powers to suppress for purposes of Article 25 but not for those of Article 34 or, as the case might be, Article 35 :—
 - (a) the generic name *Graptolithus* Linnaeus, 1768 (Class Graptolithina) ;
 - (b) the trivial name *scalaris* Linnaeus, 1768 (as published in the binominal combination *Graptolithus scalaris*) ;

- (2) to place the name *Graptolithus* Linnaeus, 1768 on the *Official Index of Rejected and Invalid Generic Names in Zoology* and the trivial name *scalaris* Linnaeus, 1768 (as originally published in the binominal combination *Graptolithus scalaris*) on the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* ;
- (3) to render an *Opinion* recording the decisions specified in (1) and (2) above.

15. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

Graptolithus Linnaeus, 1768, *Syst. Nat.* (ed. 12) 3 : 173
scalaris, *Graptolithus*, Linnaeus, 1768, *Syst. Nat.* (ed. 12) 3 : 174

16. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 106).

17. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

18. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

19. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

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* One Hundred and Ninety-Seven (197) of the International Commission on Zoological Nomenclature.

DONE in London this Fourteenth day of November, Nineteen Hundred and Fifty-Three.

*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

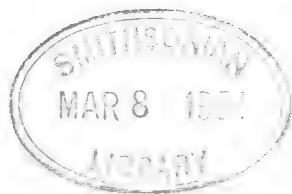
FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 3, Part 17. Pp. 217—228

OPINION 198

Suppression, under the Plenary Powers, of the generic names *Lomatoceras* Bronn, 1834, and *Monoprion* Barrande, 1850 (Class Graptolithina), and validation of the generic name *Monograptus* Geinitz, 1852.



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 198

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

Senor Dr. Angel CABRERA (*La Plata, Argentina*).

Mr. Francis HEMMING (*London, England*) (*Secretary to the Commission*).

Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).

Dr. Th. MORTENSEN (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

Class 1952

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*).

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*).

Professor Lodovico di CAPORIACCO (*University of Parma, Italy*).

Professor J. R. DYMOND (*University of Toronto, Canada*).

Dr. James L. PETERS (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*) (*Vice-President of the Commission*).

Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

Class 1955

Professor Dr. Hilbrand BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*).

Dr. William Thomas CALMAN (*Tayport, Fife, Scotland*).

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*).

Professor Béla HANKÓ (*University of Debrecen, Hungary*).

Dr. Tadeusz JACZEWSKI (*Polish Zoological Museum, Warsaw, Poland*).

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).

Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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

Dr. Henning LEMCHE (*Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark*).

Professor Kamel MANSOUR (*King Fouad University, Cairo, Egypt*).

Professor Z. P. METCALF (*North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.*).

Mr. N. D. RILEY (*British Museum (Natural History), London, England*).

Professor Ragnar SPÆRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 198

SUPPRESSION, UNDER THE PLENARY POWERS, OF THE GENERIC NAMES "LOMATOCERAS" BRONN, 1834, AND "MONOPRION" BARRANDE, 1850 (CLASS GRAPTOLITHINA) AND VALIDATION OF THE GENERIC NAME "MONOGRAP- TUS" GEINITZ, 1852

RULING :—(1) Under the Plenary Powers the generic names *Lomatoceras* Bronn, 1834, and *Monoprion* Barrande, 1850 (Class Graptolithina) are suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy. (2) The name *Monograptus* (an emendation of *Monograpsus*) Geinitz, 1852 (gender of name : masculine) (type species, by selection by Bassler (1915) : *Lomatoceras priodon* Bronn, 1834) is hereby placed on the *Official List of Generic Names in Zoology* as Name No. 628. (3) The specific name *priodon* Bronn, 1834, as published in the combination *Lomatoceras priodon*) is hereby placed on the *Official List of Specific Names in Zoology* as Name No. 3. (4) The generic names *Lomatoceras* Bronn, 1834, and *Monoprion* Barrande, 1850, as suppressed in (1) above, and the Invalid Original Spelling *Monograpsus* Geinitz, 1852 are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* as Names Nos. 2 to 4.

I.—THE STATEMENT OF THE CASE

Under cover of a letter dated 3rd July 1930 Dr. O. M. B. Bulman, Sc.D., F.R.S., then of the *Imperial College of Science and Technology (Royal School of Mines), South Kensington, London, S.W.7*, submitted to the International Commission on Zoological Nomenclature a memorandum containing several requests for the use of the Plenary Powers in relation to the names of Graptolites. One of the applications so submitted contained a request for the suppression of the generic names *Lomatoceras* Bronn, 1834, and *Monoprion* Barrande, 1850 (Class

Graptolithina) for the purpose of validating the name *Monograptus* (emend. of *Monograpsus*) Geinitz, 1852.

2. This application, as finally settled, was as follows :—

PROPOSED SUSPENSION OF THE RÈGLES FOR
MONOGRAPTUS GEINITZ, 1852 (CLASS GRAPTOLITHINA,
ORDER GRAPTOLOIDEA)¹

By O. M. B. BULMAN, Sc.D., F.R.S.

(University Lecturer in Paleozoology, Cambridge University.)

(Commission's reference Z.N.(S.)11)

The name *Lomatoceras* was erected in 1834 (*Lethaea geogn.* 1 (1) : 55), by Bronn with *Lomatoceras priodon* n. sp. (*ibid.* 1 (1) : 56), as the genotype. In 1839, Beck (*in* Murchison, *Silur. Syst.* 2 : 696) stated (but erroneously, as will be explained later) that the name was preoccupied for a genus of insect, and cited *Lomatoceras* Bronn as a synonym of *Graptolithus* Linnaeus, 1768. The name *Lomatoceras* Bronn was employed by Eichwald in 1840 (*Ueber silur. Schichtensyst. Esthland* : 101), but not, apparently, by any other author, and it was withdrawn by Bronn,² presumably in deference to Beck's assertion, in 1848 (*Index palaeont.* (1) *Nomencl. palaeont.* : 551, 667) when the species was referred to *Graptolithus* Linnaeus.

Barrande, in 1850 (*Grapt. Bohême* : 15), divided the genus *Graptolithus* Linnaeus into two subgenera, *Diprion* Barrande and *Monoprion* Barrande, the latter with fourteen genosyntypes (: 18) including *Lomatoceras priodon* Bronn ; no type was selected. Geinitz used the name *Monograpsus* [sic] in 1852 (*Verstein. Grauwackenform.* 1 : 19, 32) to cover the subgenus *Monoprion* and another of Barrande's genera, *Rastrites* Barrande, 1850 (*Grapt. Bohême* : 64) ; *Lomatoceras priodon* Bronn was one of twenty-eight genosyntypes. Geinitz asserted that *L. priodon* Barrande was the species upon which the characters of *Monoprion* Barrande were founded, and to this extent that species becomes a genolectotype of *Monoprion* Barrande. Geinitz further stated (*loc. cit.* : 19) that the change in name from *Monoprion* to *Monograpsus* was made with the object of securing uniformity with

¹ The graptolites in the past have commonly been placed in the Class Hydrozoa of the Phylum Coelenterata. The systematic position of the group is, however, obscure and it has here been thought better, while provisionally retaining the graptolites in the Phylum Coelenterata, to treat this group as constituting a separate Class, Graptolithina. (in'td) F. H. 31st January, 1945.

² Under the *Règles Internationales*, it is not within the power even of the original author of a generic or specific name to withdraw that name, once it is published.

the name *Diplograpsus* McCoy, 1851, *Brit. palaeoz. Rocks* (1) : 3, 7,³ but it is clear that he had also enlarged the scope of the genus.

Later usage has changed *Monograpsus* to *Monograptus*.

Monograptus priodon (Bronn, 1834) was cited as an "example" of the genus by Lapworth (1873, *Geol. Mag.* 10 : 500—504, 555—560) in his table of the graptolite genera, but, although it would seem that he intended his "examples" to be regarded as typical species (and stated as much for the subgenera of *Diplograptus*⁴ on page 557), he did not definitely state a type for *Monograptus*, and this appears to have been done first by Bassler in 1915 (*Bull. U.S. nat. Mus.* 92 : 822) with *Lomatoceras priodon* Bronn.

It may be remarked that Miller (1889, *N. Amer. Geol. Palaeont.* : 196) attributed the authorship of the genus to Emmons, who mentioned it in 1855 (*Amer. Geol.* 1 : 106) without quoting Geinitz's name; Emmons' species are considered by Ruedemann (1908, *Grapt. New York* 2 : 450) to be indeterminate fragments of species of *Didymograptus* McCoy, [1851],⁵ in Sedgwick & McCoy, *Syn. palaeoz. Rocks* 2 (fasc. 1) : 9, and the matter need not be pursued.

In 1896, Gurley (*J. Geol.* 4 : 79) stated that he could find no trace of the preoccupation of the name *Lomatoceras* and urged that this name should stand by virtue of priority. *Lomatoceras* Bronn, 1834, is the only genus of this name recorded by Sherborn (1927, *Index Anim. Pars. secund.* (14) : 3637) and it would seem true that Beck's original statement was incorrect.⁶

Lomatoceras Bronn, 1834, with *Lomatoceras priodon* Bronn, 1834, has clear priority over the name *Monograptus* Geinitz, 1852, with the same type; but the latter name has become well established in an extensive literature over a period of nearly 80 years. It is extensively employed in stratigraphical geology, being perhaps the most important and widely distributed single graptolite genus. Of the 23 standard zones and subzones of the British Silurian (cited by Elles and Wood) 16 are named after species of the genus *Monograptus* and zones have

³ The name *Diplograpsus* McCoy, 1851, is an emendation of the name *Diplograpsis* McCoy, 1850, *Ann. Mag. nat. Hist.* (2) 6 : 271.

⁴ The name *Diplograptus* Hall, 1865, *Geol. Surv. Canad. Fig. Descr. Canad. org. Remains* 2 : 110, is an emendation of *Diplograpsis* McCoy, 1850. See preceding footnote.

⁵ The name *Didymograptus* McCoy, [1851], is an emendation of the name published by McCoy as *Didymograpsus*. This emendation was made by Hall, 1865, *Geol. Surv. Canad. Fig. Descr. Canad. org. Remains* 2 : 41.

⁶ It may be noted also that in the latest Nomenclator (Neave, 1939, *Nomencl. zool.* 2 : 987) the only genus with the name "*Lomatoceras*" cited is *Lomatoceras* Bronn, 1834. There is, however, a genus of insects with the name *Lomatocera*, of which Bronn was the author, but this was not published until 1848, *Index pal.* : 667, i.e. fourteen years after the publication of the name *Lomatoceras* Bronn, 1834. It is possible that Beck's statement in 1839 that *Lomatoceras* was preoccupied by an older name in insects may have been due to his having been aware of the manuscript name *Lomatocera* Bronn and erroneously supposed that it had priority over the name *Lomatoceras* Bronn, 1834.

been established on species of this genus not only throughout Europe, but also in America, Asia and Australia. Moreover, the name appears in nearly every elementary textbook of palaeontology and stratigraphy. No useful purpose would be served by an insistence upon the re-establishment of an almost forgotten name (*Lomatoceras*) originally bestowed under the impression that the graptolites belonged to the Cephalopoda; and the name *Monoprion* Barrande, 1850, which, apart from the work of Barrande, has also found no place in the classic literature on graptolites, is equally undesirable.

In the opinion of the applicant, the strict application of the rules to the present case would result in greater confusion than uniformity and he therefore submits that under their plenary powers the International Commission should suppress the names *Lomatoceras* Bronn, 1834, and *Monoprion* Barrande, 1850, and should validate *Monograptus* Geinitz, 1852, (= an emendation of *Monograpsus* Geinitz, 1852) with *Lomatoceras priodon* Bronn, 1834, as type, and that the name *Monograptus* Geinitz, 1852, so validated and with the above species as type, should be placed on the *Official List of Generic Names in Zoology*.

II.—THE SUBSEQUENT HISTORY OF THE CASE

3. The memorandum furnished by Dr. Bulman in 1930 was communicated in December 1931 to the members of the International Commission on Zoological Nomenclature by the then Secretary (the late Dr. C. W. Stiles) in Circular Letter No. 221. This action led to the submission of the five comments on this case set out in the immediately following paragraphs.

4. *Comment by Lt. Col. J. Stephenson*: The following comment was furnished in a letter dated 5th March 1932 by Lt. Col. J. Stephenson, a Member of the International Commission:—

The authority to whom I should naturally have submitted the cases detailed in your Circular Letter 221 (Subject: Suspension, *Monograptus*, *Retiolites*, *Graptolithus*) is Dr. Bulman himself, who works within a stone's throw of this Museum [*British Museum (Natural History)*]. As he raises the cases, we may take it that we know his answer beforehand.

Captain A. K. Totton, the Assistant Keeper here in the Museum in charge of Coelenterata, informs me that he would himself have no hesitation in taking Dr. Bulman's opinion; and, having been through

the names myself as they are presented in your letter, I beg to give my own informal recommendation in the same sense also.

5. *Comment by Dr. F. A. Bather* : In a letter to Dr. Stiles, dated 21st March 1932, the late Dr. F. A. Bather (*Keeper, Department of Zoology, British Museum (Natural History)*) wrote : " I entirely agree with Bulman's proposals ".

6. *Comment by Dr. Gertrude L. Elles* : In a letter dated 25th February 1932 (communicated by Dr. Bather), Dr. Gertrude L. Elles (*Sedgwick Museum, Cambridge University*) wrote :—

I am entirely in sympathy with Bulman's proposals. . . I consider very definitely that it would be a very great pity to attempt to re-establish *Lomatoceras* for *Monograptus*, since the latter is so well established in literature and perfectly well understood.

7. *Comment by Dr. Karl Jordan* : In a letter dated 22nd May 1932, Dr. Karl Jordan (*Zoological Museum, Tring, Herts.*) wrote : "*Lomatoceras* has priority. Its re-introduction may be inconvenient for present-day workers, but hardly leads to confusion. If a large majority of specialists insists on retaining the junior name *Monograptus*, I am willing to agree to a suspension of the Rules ".

8. *Comment by Mr. Frederick Chapman* : In a letter dated 9th September 1932, Mr. Frederick Chapman (*National Museum, Melbourne, Victoria, Australia*) wrote as follows :—

My colleagues R. A. Keble, W. J. Harris and D. E. Thomas, graptolite specialists in Victoria, with whom I entirely agree, are of the opinion that it would be unfortunate to revive *Lomatoceras* Bronn, 1834, instead of retaining *Monograptus* Lapworth, 1873 (non *Monograptus* Geinitz, 1852). Such reversion would cause great confusion amongst present-day workers and therefore we would vote for the suspension of the Rules in this case.

9. The present case was placed on the Agenda for the Session of the International Commission then about to be held at Lisbon in Circular Letter 309 issued to members of the Commission in March 1935. Owing to the absence through ill-health of the Secretary (Dr. Stiles) and the fact that in consequence the papers relating to this case were not available in Lisbon, it was not possible for the International Commission to deal with this case on that occasion.

10. In 1938 the documents relating to this and other current cases were transferred to the care of Mr. Francis Hemming, who in October 1936 had been elected Secretary to the Commission on the retirement of Dr. Stiles. On receipt the documents relating to this case were given the Registered Number Z.N.(S.)11. It had not been found possible to make any further progress with this case when in September 1939 the records of the Commission were evacuated from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly-established *Bulletin*. After an exchange of correspondence between the Secretary and Dr. Bulman, the terms of the present application were finally settled on 24th August 1944. This application was sent to the printer in September 1944, but, owing to paper rationing, shortage of labour at the printing works and similar causes, publication did not actually take place until 26th June 1946 (Bulman, 1946, *Bull. zool. Nomencl.* **1** : 164—166). The publication of this application in the *Bulletin* elicited the comments set out in the three immediately following paragraphs.

11. *Comment by Dr. Th. Mortensen* : In a letter dated 20th April 1947, the late Dr. Th. Mortensen (*Universitetets Zoologisk Museum, Copenhagen*) indicated his support for this application by writing the word "Yes".

12. *Comment by Dr. Charles E. Decker* : On 13th June 1947 Dr. J. Brookes Knight (*Research Associate in Paleontology, United States National Museum, Washington, D.C., U.S.A.*) at that time Chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America, wrote : "As Chairman, I called these propositions to the attention of Dr. Rudolf Ruedemann and Dr. Charles E. Decker, the two recognized American authorities on the Graptolites. I enclose the originals of their replies". The comment by Dr. Decker (*University of Oklahoma, Norman, Oklahoma, U.S.A.*) on the present case was given in a letter dated 2nd August 1946, the relevant portion

of which reads as follows : " As regards the case of *Lomatoceras* Bronn, and *Monoprion* Barrande, the later name *Monograptus* Geinitz has acquired a definite meaning and is now generally accepted. I think, therefore, that the older generic terms might well be suppressed."

13. *Comment by Dr. Rudolf Ruedemann* : In a letter dated 29th November 1946, Dr. Rudolf Ruedemann (*Albany, N.Y., U.S.A.*) wrote : " In answer to your question I may say that I fully agree with the proposed suspension of the *Règles* for *Monograptus*. . . ."

14. On 14th September 1947 a notice of the possible use, by the International Commission on Zoological Nomenclature, of its Plenary Powers in the present case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the action proposed.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

15. The present application was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 1730 hours. The following is an extract from the Official Record of the Proceedings of the International Commission setting out the decision reached by it in regard to this case at the foregoing meeting (Paris Session, 13th Meeting, Conclusion 22) (1950, *Bull. zool. Nomencl.* 4 : 378) :—

THE COMMISSION agreed :—

(1) to use their plenary powers :—

(a) to suppress the generic names *Lomatoceras* Bronn, 1834 and *Monoprion* Barrande, 1850 for the

- purposes of Article 25 but not for those of Article 34 ;
- (b) to validate the generic name *Monograptus* (emend. of *Monograpsus*) Geinitz, 1852, with *Lomatoceras priodon* Bronn, 1834, as its type species ;
- (2) to place the generic name *Monograptus* Geinitz, 1852 (Class Graptolithina, Order Graptoloidea), emended and validated as above and with the above species as its type species, on the *Official List of Generic Names in Zoology* and the trivial name *priodon* Bronn, 1834 (as published in the binominal combination *Lomatoceras priodon*) on the *Official List of Specific Trivial Names in Zoology* ;
- (3) to place the generic names *Lomatoceras* Bronn, 1834 and *Monoprion* Barrande, 1850, on the *Official Index of Rejected and Invalid Generic Names in Zoology* ;
- (4) to render an *Opinion* recording the decisions specified in (1) to (3) above.

16. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

- Lomatoceras* Bronn, 1834, *Lethaea geogn.* 1(1) : 55
Monograpsus Geinitz, 1852, *Verstein. Grauwackenform.* 1 : 19, 32
Monograptus (emend. of *Monograpsus*) Geinitz, 1852, *Verstein. Grauwackenform.* 1 : 19, 32
Monoprion Barrande, 1850, *Grapt. Bohême* : 15
priodon, *Lomatoceras*, Bronn, 1834, *Lethaea geogn.* 1(1) : 56

The following is the reference for the type-selection for the genus *Monograptus* (emend. of *Monograpsus*) Geinitz, 1852 :—Bassler, 1915, *Bull. U.S. nat. Mus.* 92 : 822.

17. The gender of the generic name *Monograptus* Geinitz, 1852, referred to in the decision quoted in paragraph 15 is masculine.

18. Under the provisions relating to the *Official Index of Rejected and Invalid Generic Names in Zoology*, the International Commission is required to place thereon every generic name which it either rejects under the Plenary Powers or declares to be invalid. In the present instance this requirement was duly complied with in the Official Record of its decision, so far as the names *Lomatoceras* Bronn, 1834, and *Monoprion* Barrande, 1850, were concerned, but through some inadvertence not in the case of the Invalid Original Spelling *Monograpsus* Geinitz, 1852, then rejected by it in favour of the Emendation *Monograptus*. This omission has been rectified in the Ruling given in the present *Opinion*.

19. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 106).

20. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

21. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

22. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and

invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

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

24. The present *Opinion* shall be known as *Opinion One Hundred and Ninety-Eight* (198) of the International Commission on Zoological Nomenclature.

DONE in London this Fourteenth day of November, Nineteen Hundred and Fifty-Three.

*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 3, Part 18. Pp. 229—238

OPINION 199

Suppression, under the Plenary Powers, of the generic name *Gladiolites* Barrande, 1850, and validation of the name *Retiolites* Barrande, 1850 (Class Graptolithina)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 199

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History) Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

Senor Dr. Angel CABRERA (*La Plata, Argentina*).

Mr. Francis HEMMING (*London, England*) (*Secretary to the Commission*).

Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).

Dr. Th. MORTENSEN (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

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Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

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Professor Béla HANKÓ (*University of Debrecen, Hungary*).

Dr. Tadeusz JACZEWSKI (*Polish Zoological Museum, Warsaw, Poland*).

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).

Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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

Dr. Henning LEMCHE (*Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark*).

Professor Kamel MANSOUR (*King Fouad University, Cairo, Egypt*).

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Mr. N. D. RILEY (*British Museum (Natural History), London, England*).

Professor Ragnar SPÄRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 199

SUPPRESSION, UNDER THE PLENARY POWERS, OF THE GENERIC NAME "GLADIOLITES" BARRANDE, 1850, AND VALIDATION OF THE NAME "RETIOLITES" BARRANDE, 1850 (CLASS GRAPTOLITHINA)

RULING :—(1) The generic name *Gladiolites* Barrande, 1850, (Class Graptolithina) is hereby suppressed under the Plenary Powers for the purposes of the Law of Priority but not for those of the Law of Homonymy. (2) The name *Retiolites* Barrande, 1850 (gender of name : masculine) (type species, by monotypy : *Gladiolites geinitzianus* Barrande, 1850) is hereby placed on the *Official List of Generic Names in Zoology* as Name No. 629. (3) The name *Gladiolites* Barrande, 1850, as suppressed under (1) above, is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* as Name No. 5. (4) The specific name *geinitzianus* Barrande, 1850, as published in the combination *Gladiolites geinitzianus*, is hereby placed on the *Official List of Specific Names in Zoology* as Name No. 4.

I.—THE STATEMENT OF THE CASE

Under cover of a letter dated 3rd July 1930, Dr. O. M. B. Bulman, Sc.D., F.R.S., then of the *Imperial College of Science and Technology (Royal School of Mines), South Kensington, London, S.W.7*, submitted to the International Commission on Zoological Nomenclature a memorandum containing several requests for the use of the Plenary Powers in relation to the names of Graptolites. One of the applications so submitted contained a request for the suppression of the generic name *Gladiolites* Barrande, 1850 (Class Graptolithina) for the purpose of validating the name *Retiolites* Barrande, 1850.

2. This application, as finally settled, was as follows :—

PROPOSED SUSPENSION OF THE RÈGLES FOR *RETIOLITES*
BARRANDE, 1850 (CLASS GRAPTOLITHINA,
ORDER GRAPTOLOIDEA)¹

By O. M. B. BULMAN, Sc.D., F.R.S.

(University Lecturer in Palaeozoology, Cambridge University)

(Commission's Reference : Z.N.(S.)11)

Barrande in 1850 *Grapt. Bohême* : 68, erected the genus *Gladiolites* with the species *Gladiolites geinitzianus* Barrande as the genotype, by monotypy. He added a footnote (: 68) :—

Si l'affinité entre le nom générique *Gladiolites* et *Gladiolus*, désignant une plante, pouvait faire élever quelque objection contre le premier, nous proposerions de lui substituer celui de *Retiolites*.

The name *Retiolites* Barrande was used in the following year by Suess (1851, *Naturw. Abhandl. Haidinger* 4 (4) : 91) and has been adopted by all later authors with the exception of Gurley (1896, *J. Geol.* 4 : 79). There is no question of preoccupation, although it may be mentioned that at that time a fossil *Gladiolus* would presumably have been termed *Gladiolites*.²

As in the case of *Monograptus* Geinitz, 1852, the name *Retiolites* Barrande has been widely employed for a very considerable time, and the continued use of this originally alternative name can here lead to no supposed injustice, since Barrande is himself the author.

The name *Retiolites* Barrande, 1850, is widely employed in stratigraphical geology. The "Retiolites Shale" is a well-known, long-established and important stratigraphical unit in the Upper Silurian of Sweden and has been extensively quoted not only in Scandinavian literature but also in correlation with Europe and America. The name *Retiolites* Barrande figures also in nearly every elementary textbook of palaeontology and stratigraphy. In the opinion of the applicant, the strict application of the rules as applied to the present case would clearly result in greater confusion than uniformity.

The applicant, therefore, submits that the name *Retiolites* Barrande, 1850, with *Gladiolites geinitzianus* Barrande, 1850, as type, be placed

¹ The graptolites in the past have commonly been placed in the Class Hydrozoa of the Phylum Coelenterata. The systematic position of the group is, however, obscure and it has here been thought better, while provisionally retaining the graptolites in the Phylum Coelenterata, to treat this group as constituting a separate Class, Graptolithina. (int'd.) F. H. 31st January, 1945.

² Article 1(i) of the *Règles Internationales de la Nomenclature Zoologique* reads (in the substantive French text) : " La Nomenclature zoologique est indépendante de la Nomenclature botanique, en ce sens qu'un nom d'animal ne peut être rejeté pour ce seul motif qu'il est identique à un nom de plante ".

in the *Official List of Generic Names in Zoology* under suspension of the rules and that the name *Gladiolites* Barrande, 1850, be suppressed.

II.—THE SUBSEQUENT HISTORY OF THE CASE

3. The memorandum furnished by Dr. Bulman in 1930 was communicated in December 1931 to the members of the International Commission on Zoological Nomenclature by the then Secretary (the late Dr. C. W. Stiles) in Circular Letter No. 221. This action led to the submission of the four comments on this case set out in the immediately following paragraphs.

4. *Comment by Lt. Col. J. Stephenson* : The following comment was furnished in a letter dated 5th March 1932 by Lt. Col. J. Stephenson, a Member of the International Commission :—

The authority to whom I should naturally have submitted the cases detailed in your Circular Letter 221 (Subject : Suspension, *Monograptus*, *Retiolites*, *Graptolithus*) is Dr. Bulman himself, who works within a stone's throw of this Museum [British Museum (Natural History)]. As he raises the cases, we may take it that we know his answer beforehand.

Captain A. K. Totton, the Assistant Keeper here in the Museum in charge of Coelenterata, informs me that he would himself have no hesitation in taking Dr. Bulman's opinion ; and, having been through the names myself as they are presented in your letter, I beg to give my own informal recommendation in the same sense also.

5. *Comment by Dr. F. A. Bather* : In a letter to Dr. Stiles, dated 21st March 1932, the late Dr. F. A. Bather (*Keeper, Department of Zoology, British Museum (Natural History)*) wrote : " I entirely agree with Bulman's proposals ".

6. *Comment by Dr. Gertrude L. Elles* : In a letter dated 25th February 1932 (communicated by Dr. Bather), Dr. Gertrude L. Elles (*Sedgwick Museum, Cambridge University*) wrote :—

I am entirely in sympathy with Bulman's proposals I consider very definitely that it would be a very great pity to attempt to re-establish *Lomatoceras* for *Monograptus*, since the latter is so well established in literature and perfectly well understood. I also feel the same with regard to *Retiolites*.

7. *Comment by Dr. Karl Jordan* : In a letter dated 22nd May 1932, Dr. Karl Jordan (*Zoological Museum, Tring, Herts.*) wrote : “ *Retiolites* versus *Gladiolites*. The latter name has priority, and its re-adoption can lead to no confusion”.

8. The present case was placed on the Agenda for the Session of the International Commission then about to be held at Lisbon in Circular Letter 309 issued to members of the Commission in March 1935. Owing to the absence through ill-health of the Secretary (Dr. Stiles) and the fact that in consequence the papers relating to this case were not available in Lisbon, it was not possible for the International Commission to deal with this case on that occasion.

9. In 1938 the documents relating to this and other current cases were transferred to the care of Mr. Francis Hemming, who in October 1936 had been elected Secretary to the Commission on the retirement of Dr. Stiles. On receipt, the documents relating to this case were given the Registered Number Z.N.(S.)11. It had not been found possible to make any further progress with this case when in September 1939 the records of the Commission were evacuated from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. After an exchange of correspondence between the Secretary and Dr. Bulman, the terms of the present application were finally settled on 24th August 1944. This application was sent to the printer in September 1944, but, owing to paper rationing, shortage of labour at the printing works and similar causes, publication did not actually take place until 26th June 1946. (Bulman, 1946, *Bull. zool. Nomencl.* 1 : 166.) The publication of this application in the *Bulletin* elicited the comments set out in the three immediately following paragraphs.

10. *Comment by Dr. Th. Mortensen* : In a letter dated 20th April 1947, the late Dr. Th. Mortensen (*Universitetets*

Zoologisk Museum, Copenhagen) indicated his support for this application by writing the word "Yes".

11. Comment by Dr. Charles E. Decker : On 13th June 1947, Dr. J. Brookes Knight (*Research Associate in Paleontology, United States National Museum, Washington, D.C., U.S.A.*) at that time Chairman of the Joint Committee on Zoological Nomenclature for Paleontology in America, wrote : "As Chairman, I called these propositions to the attention of Dr. Rudolf Ruedemann and Dr. Charles E. Decker, the two recognized American authorities on the Graptolites. I enclose the originals of their replies". The comment by Dr. Decker (*University of Oklahoma, U.S.A.*) on the present case was given in a letter dated 2nd August 1946, the relevant portion of which reads as follows : "The name *Retiolites* Barrande is now clearly understood and is in general use. In this case also, I think that the older generic term *Gladiolites* might well be suppressed".

12. Comment by Dr. Rudolf Ruedemann : In a letter dated 29th November 1946, Dr. Rudolf Ruedemann (*Albany, N.Y., U.S.A.*) wrote : "In answer to your question I may say that I fully agree with the proposed suspension of the *Règles* for *Retiolites*".

13. On 14th September 1947 a notice of the possible use, by the International Commission on Zoological Nomenclature, of its Plenary Powers in the present case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the action proposed.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

14. The present application was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 17.30 hours.

The following is an extract from the portion of the Official Record of the Proceedings of the International Commission, setting out the decision reached by it in regard to this case at the foregoing meeting (Paris Session, 13th Meeting, Conclusion 23) (1950, *Bull. zool. Nomencl.* **4** : 378—379) :—

THE COMMISSION agreed :—

(1) to use their plenary powers :—

(a) to suppress the generic name *Gladiolites* Barrande, 1850, for the purposes of Article 25 but not for those of Article 34 ;

(b) to validate the generic name *Retiolites* Barrande, 1850, with *Gladiolites geinitzianus* Barrande, 1850, as type species ;

(2) to place the generic name *Retiolites* Barrande, 1850 (Class Graptolithina, Order Graptoloidea), validated as above and with the above species as its type species, on the *Official List of Generic Names in Zoology* ;

(3) to place the generic name *Gladiolites* Barrande, 1850, on the *Official Index of Rejected and Invalid Generic Names in Zoology* ;

(4) to place the trivial name *geinitzianus* Barrande, 1850 (as published in the binominal combination *Gladiolites geinitzianus*) on the *Official List of Specific Trivial Names in Zoology* ;

(5) to render an *Opinion* recording the decisions specified in (1) to (4) above.

15. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

geinitzianus, *Gladiolites*, Barrande, 1850, *Grapt. Bohême* : 68

Gladiolites Barrande, 1850, *Grapt. Bohême* : 68

Retiolites Barrande, 1850, *Grapt. Bohême* : 68

16. The gender of the generic name *Retiolites* Barrande, 1850, referred to in the decision quoted in paragraph 14 is masculine.

17. The decision taken in this case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 106).

18. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

19. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

20. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

21. 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.

22. The present *Opinion* shall be known as *Opinion One Hundred and Ninety-Nine (199)* of the International Commission on Zoological Nomenclature.

DONE in London this Fifteenth day of November, Nineteen Hundred and Fifty-Three.

*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 3. Part 19. Pp. 239—266

OPINION 200

Validation, under the Plenary Powers, of the accustomed usage of the generic names *Tethys* Linnaeus, 1767, and *Aplysia* Linnaeus, 1767 (Class Gastropoda)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 200

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

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Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).

Dr. Th. MORTENSEN (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

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Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

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Professor Béla HANKÓ (*University of Debrecen, Hungary*).

Dr. Tadeusz JACZEWSKI (*Polish Zoological Museum, Warsaw, Poland*).

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).

Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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

Dr. Henning LEMCHE (*Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark*).

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Mr. N. D. RILEY (*British Museum (Natural History), London, England*).

Professor Ragnar SPÄRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 200

VALIDATION, UNDER THE PLENARY POWERS, OF THE ACCUSTOMED USAGE OF THE GENERIC NAMES "TETHYS" LINNAEUS, 1767, AND "APLYSIA" LINNAEUS, 1767 (CLASS GASTROPODA)

RULING :—(1) The name *Laplysia* Linnaeus, 1767, is to be emended to *Aplysia*.

(2) The following action is hereby taken under the Plenary Powers :—(a)(i) The generic name *Tethys* Linnaeus, 1758, and (ii) all subsequent uses of the name *Tethys* prior to the publication of the name *Tethys* Linnaeus, 1767, are hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy. (b) The following specific names are hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy :—(i) the name *leporina* Linnaeus, 1758, as published in the combination *Tethys leporina* ; (ii) all other uses of the name *leporina* in combination with the generic name *Tethys* Linnaeus, 1767 ; (iii) the name *limacina* Linnaeus, 1758, as published in the combination *Tethys limacina* ; (iv) all other uses of the name *limacina* in combination with the generic name *Tethys* Linnaeus, 1767. (c) The following specific names are hereby suppressed for the purposes both of the Law of Priority and of the Law of Homonymy :—(i) the name *depilans* Linnaeus, 1767, as published in the combination *Laplysia depilans* ; (ii) all other uses of the name *depilans* in combination with the generic name *Aplysia* (or *Laplysia*) prior to the publication of the name *depilans* Gmelin, 1791, as published in the combination *Aplysia depilans*. (d) The generic name *Tethys* Linnaeus, 1767, is hereby validated. (e) The under-mentioned specific names are hereby validated and are to be used in preference to any other names for the species respectively concerned :—(i) the name *depilans* Gmelin, 1791, as published in the combination *Aplysia depilans* ; (ii) the name *fimbria* Linnaeus, 1767, as

published in the combination *Tethys fimbria*. (f) All type selections for *Aplysia* Linnaeus, 1767, and *Tethys* Linnaeus, 1767, made prior to the present Ruling are hereby set aside, and *Aplysia depilans* Gmelin, 1791, is hereby designated as the type species of *Aplysia* Linnaeus, 1767, and *Tethys fimbria* Linnaeus, 1767, is hereby designated as the type species of *Tethys* Linnaeus, 1767.

(3) The generic names *Aplysia* (emend. of *Laplysia*) Linnaeus, 1767 (gender of name : feminine), and *Tethys* Linnaeus, 1767 (gender of name : feminine), with the type species severally designated therefor under the Plenary Powers in (2)(f) above, are hereby placed on the *Official List of Generic Names in Zoology* as Names Nos. 630 and 631.

(4) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* as Names Nos. 5 and 6 :—(a) the name *depilans* Gmelin, 1791, as published in the combination *Aplysia depilans* ; (b) the name *fimbria* Linnaeus, 1767, as published in the combination *Tethys fimbria*.

(5) The under-mentioned generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* as Names Nos. 6 to 8 :—(a) *Laplysia* (Invalid Original Spelling of *Aplysia*) Linnaeus, 1767 ; (b) *Tethys* Linnaeus, 1758 ; (c) *Tethys*, all uses of, subsequent to Linnaeus, 1758, and prior to Linnaeus, 1767, the entries in respect of items (b) and (c) to be subject to the conditions specified in (2)(a) above.

(6) The under-mentioned specific names are hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* as Names Nos. 2 to 5, subject to the conditions specified in (2)(b) above :—(a) the name *leporina* Linnaeus, 1758, as published in the combination *Tethys leporina* ; (b) the name *leporina*, all other uses of, in combination with the generic name *Tethys* Linnaeus, 1758 ; (c) *limacina* Linnaeus, 1758, as

published in the combination *Tethys limacina*; (d) the name *limacina*, all other uses of, in combination with the generic name *Tethys* Linnaeus, 1758.

(7) The under-mentioned specific names are hereby placed on the foregoing *Official Index* as Names Nos. 6 and 7, subject to the conditions specified in (2)(c) above:— (a) the name *depilans* Linnaeus, 1767, as published in the combination *Laplysia depilans*; (b) the name *depilans*, all other uses of, in combination with the generic name *Aplysia* (*Laplysia*) subsequent to Linnaeus, 1767, and prior to the publication of the name *depilans* Gmelin, 1791, as published in the combination *Aplysia depilans*.

(8) The applications submitted in regard to the specific names *fasciata* Poiret, 1789, as published in the combination *Aplysia fasciata*, and *punctata* Cuvier, 1803, as published in the combination *Laplysia* [sic] *punctata*, are hereby postponed for further consideration¹.

I.—THE STATEMENT OF THE CASE

The earlier records of the present case are incomplete, but it appears from those which survive that on some date in 1934, the late Dr. C. W. Stiles, then Secretary to the International Commission, received from Dr. H. Engel (*Zoologisch Museum, Amsterdam, The Netherlands*) a long and detailed application for the use of the Plenary Powers for the purpose of giving valid force to the current usage of the names *Tethys* Linnaeus, 1767, and *Aplysia* Linnaeus, 1767 (Class Gastropoda). It was beyond the capacity of the Secretariat of the Commission to bring before Commissioners so lengthy a paper, and this led to protracted delays in the consideration of this case. Ultimately, as explained in paragraph 10 below, an arrangement was made, in agreement with Dr. Engel, under which the late Mr. R. Winckworth (*London*)

¹ For the later consideration of these two names, see Hemming, 1952 (*Bull. zool. Nomencl.* 7 : 212—215). It is anticipated that decisions on these names will be reached by the International Commission on Zoological Nomenclature at an early date. (intl'd.) F.H. 16th November, 1953.

prepared a summary of Dr. Engel's paper. This summary was as follows :—

PROPOSED SUSPENSION OF THE REGLES TO RETAIN THE NAMES "APLYSIA" AND "TETHYS" AS GENERIC NAMES IN THE SUB-ORDERS TECTIBRANCHIA AND NUDIBRANCHIA RESPECTIVELY OF THE ORDER OPISTHOBRANCHIATA (CLASS GASTROPODA)

By H. ENGEL

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(Commission's reference Z.N.(S.)22)

Introductory.

The present application was originally submitted to the International Commission on Zoological Nomenclature under cover of a letter which I addressed on 10th January 1927 to the late Dr. C. W. Stiles, then Secretary to the Commission. After some preliminary correspondence Dr. Stiles informed me that the text of my application was too lengthy for him to be able to arrange for the reproduction of copies for circulation to the members of the Commission. In agreement with Dr. Stiles (communicated to me in a letter dated 16th November 1934) I then arranged for this application to be published in my own country, publication taking place in 1936 in *Temminckia* 1 : 221—266. In the same year (27th June) I communicated a number of separates of my paper to Dr. Stiles. Unfortunately, however, no progress was made by the Commission in the consideration of this case before the outbreak of war in 1939 necessarily involved a further delay.

After the war I received a letter dated 14th October 1945 from Mr. Francis Hemming, who had by then become the Secretary to the Commission, informing me that the Commission had established a journal of their own, the *Bulletin of Zoological Nomenclature*, in which in future all applications submitted to the Commission would be published, in order to give zoologists generally an opportunity of commenting upon such proposals before any action thereon was taken by the Commission. At the same time Mr. Hemming informed me that my application, as published in *Temminckia*, was too long for re-publication in the *Bulletin* and that he had therefore asked Mr. R. Winckworth to prepare a summary which he hoped I would agree brought out clearly all the points which it was necessary should be brought to the attention of the Commission to enable them to reach a decision on the action to be taken. In due course Mr. Hemming communicated to me the summary which Mr. Winckworth had prepared. Subject to a few minor changes, the present paper is the summary so prepared. I wish to express my thanks to Mr. Hemming for all the work which he has done on this case.

The animals called Sea Hares or *Lepores marini* have been known at least since the days of Pliny. Linnaeus called them *Tethys* in 1758, but in 1767 changed the name to *Aplysia*, under which name they were universally known until 1895 and generally known to the present day. In 1895 Pilsbry (*Proc. Acad. nat. Sci. Philad.* 1895 : 347) tried to restore the name *Tethys* Linnaeus, 1758, but only a few systematists followed him, as the Tectibranch genus of sea hares are so widely known under the name *Aplysia*, while *Tethys* has been used since Linnaeus, 1767 for a well known Nudibranch mollusc from the Mediterranean, conspicuous because of its very large mouth veil. The present paper tries to show that it is desirable to place *Aplysia* Linnaeus, 1767 on the *Official List of Generic Names in Zoology*, because the strict application of the *Règles* would clearly result in greater confusion than uniformity. This requires the suppression of the generic name *Tethys* Linnaeus, 1758, the specific names *Aplysia depilans* Linnaeus, 1767, *A. fasciata* Poiret, 1789, and *A. punctata* Cuvier, 1803, and *Tethys leporina* are also discussed.

The Genera and Species involved in the Case.

As some confusion has already risen, it seems best to indicate the genera and species involved by reference letters. The animals are all common Mediterranean species, some of which are also found in the Atlantic.

<i>Names generally used</i>	<i>Names proposed by Pilsbry</i>	<i>Letter</i>
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THE TECTIBRANCH MOLLUSCS

<i>Aplysia</i> L.	<i>Tethys</i> L.	A
<i>A. limacina</i> L.	<i>T. leporina</i> L.	a₁
or <i>A. fasciata</i> Poiret		
<i>A. depilans</i> L.	<i>T. depilans</i> L.	a₂
<i>A. punctata</i> Cuvier	<i>T. punctata</i> Cuvier	a₃
or rarely <i>A. rosea</i> Rathke		

THE NUDIBRANCH MOLLUSCS

<i>Tethys</i> L.	<i>Tethis</i> Lamarck or a new name	B
<i>T. leporina</i> L. or sometimes		
<i>T. fimbria</i> Bohadsch	<i>T. fimbria</i> Bohadsch	b

Note.—For detailed descriptions and figures of the three Aplysiid species see Pilsbry, 1895, Tryon's *Manual of Conchology* 16 (62) : 69—73, where they are described as *Tethys depilans*, *T. leporina* (with *Laplysia fasciata* as synonym) and *T. punctata*.

No ambiguity can arise about the only known species of the Nudibranch *Tethys*, fully described by Bergh, 1875, *Sempers Reisen im . . . Philippinen* 2(9) : 345—362 as *Tethys leporina*.

Texts of Linnaeus.

Linnaeus, 1758, *Systema Naturae* (ed. 10) 1 : 653.

254 TETHYS *Corpus* oblongum, bilabiatum : corpusculo medio cartilagineo oblongo.
Tentacula duo, cuneiformia.
Foramina duo, spirantia.

limacina. 1.T. auriculis quatuor.

Habitat in Oceano Australi.

Corpus oblongum, antice quasi 4 auriculis acutis instructum.

leporina. 2. T. corpore rubro, margine membranaceo, auriculis duabus.

Rond. pisc. 1. p. 520. *Lepus marinus.*

Bell. aquat. 437. *Lepus marinus.*

Gesn. aquat. 475. *Lepus marinus.*

Aldr. exsangu. 78. *Lepus marinus* 1.

Habitat in M. Mediterraneo.

Conf. Column. aqu. t. 26. f. 2, 3.

Linnaeus, 1767, *Systema Naturae* (ed. 12) 1(2) : 1072, 1082, 1089.

283 APLYSIA *Tentacula* 4. *Anus* supra postica.

289 TETHIS *Foramina* lateralia, sinistra, gemina.

283 LAPLYSIA *Corpus* repens, obvelatum membranis reflexis.
Clypeo dorsali, membranaceo, pulmones obtegente.
Foramen laterale, dextrum, pro genitalibus.
Anus supra extremitatem dorsi.
Tentacula quatuor, anterius sita.

depilans. 1.

LAPLYSIA.

Syst. nat. 10. p. 653. *Tethys limacina.*

Rond. pisc. 1. p. 520. *Lepus marinus.*

Gesn. aquat. 475. *Lepus marinus Rondeletii.*

Bohads. mar. 3. t. 1, 2, 3. *Lernea graphice.*

Seb. mus. 3.t.1.f.8, 9.

Habitat in M. Mediterraneo ; sanie depilans tactu.

(B.51) foetidissima ad nauseam usque.

289 TETHYS *Corpus* liberum, oblongiusculum, carnosum, apodum.

Os proboscide terminali, cylindrica, sub labio explicato.

Foramina 2 ad latus colli sinistrum.

leporina. 1.T.labro ciliato.†

Column. aquat. 27.†.26. *Lepus marinus major.*

Rondel. pisc. 526. *Leporis marini tertia species.*

Habitat in Mari Mediterraneo.

fimbria. 2.T.labro crenulato.

Bohads. mar. 54.t.5.f.1, 2. *Fimbria.*

Habitat in Mari Adritico.

Videtur a praecedentii distincta species.

Consideration of the Texts of Linnaeus.

In the earlier editions of the *Systema Naturae* Linnaeus seems to have known these animals from literature only, and there is considerable confusion between *Tethys*, *Tethya*, *Holothurium* and *Lerneae*. In the tenth edition (1758), the last two names were emended to *Holothuria* and *Lernaea*, while the *Lepus marinus* of Columna (**B**) is now removed from *Lerneae* and placed doubtfully under *Tethys* with the word 'Conf,' prefixed. The diagnosis of *Tethys* still contains the inapplicable words 'Foramina duo spirantia' surviving from earlier editions, where they refer to the ascidian *Tethya*.

There were two species of *Tethys* named in 1758. The first, *T. limacina*, seems to have been based on an animal in the possession of, or at least known to, Linnaeus, which served as the basis for the diagnosis of the genus and was a real sea hare (**A**).

The second, *T. leporina*, is based on literature and is intended to be the *Lepus marinus* of the older authors. The authors quoted are Rondeletius, 1554, *Libri de piscibus marinis* : 520, Bellonius, 1553, *De aquatilibus* : 437, Gesner, 1620, *Historia animalium* (ed. 2) 4 : 475 and Aldrovandus, 1606, *De reliquis animalibus exanguibus* : 78. Of these the first refers to a species of the genus **A**, probably **Aa**₁ ; on page 526 two other kinds of sea hare are figured, one being a species of **A** and the other one of **B**. But the first animal may safely be regarded as the subject of Linnaeus' quotation, not only from the page reference, but because his diagnosis is based on the description of the first animal on page 521 : hence the allusion to two tentacles instead of four in Linnaeus' diagnosis, for Rondelet mentions the two dorsal tentacles, but the anterior tentacles are only indicated by the remark that the front of the head resembles that of a hammerhead shark. The reference to Bellonius seems to have been included simply because the animal was called *Lepus marinus* : it is not a mollusc but a Rhizostome jellyfish. Gesner's work is compiled from those of Rondelet and Bellonius. The reference to Aldrovandus is again to Rondeletius' first species.

Our conclusion about the use of these names in the tenth edition of the *Syst. Nat.* must be that the name *Tethys* is here used for the genus **A**, that the diagnosis curiously retains one character of the old ascidian genus *Tethya*, while the species are : (1) an animal, *T. limacina* which Linnaeus had himself seen, an *Aplysia* (**A**) from the South Seas ; (2) *T. leporina*, being the first *Lepus marinus* of Rondeletius, i.e., probably *Aplysia fasciata* auct. (**Aa**₁).

The twelfth edition, 1767, of the *Systema Naturae* shows the influence of the work of Bohadsch, 1761, *De quibusdam animalibus marinis*, in which there is an excellent description of *Aplysia* (**A**) under the name *Lernaea* with figures of *A. depilans* (**Aa**₂) on Tab. 1 and *A. fasciata* (**Aa**₁) on Tab. 2, fig. 1, which are not regarded as separate species or named. Linnaeus changes the name *Tethys* to *Aplysia* (: 1072), which by an error is mis-spelled *Laplysia* on page 1082. The diagnosis is changed and corrected according to Bohadsch's description. Of

the species, the first, *Tethys limacina* Linnaeus, 1758, is identified with the second, the *Lepus marinus* of Rondelet, and they are united under the name *Laplysia depilans*. The list of references is corrected by the omission of Bellonius; a reference to Bohadsch is added, and also one to Seba. What Seba's animal was cannot be determined from the figures or the text.

Thanks to Bohadsch's chapter on *Fimbria*, which refers to the Nudibranch which I have called genus **B**, Linnaeus recognised these animals as a genus different from *Aplysia* (**A**). By a curious caprice he names them *Tethys*. There are two species. The first, *Tethys leporina* is based on Columna, 1616, *Aquatilium . . . animalium observationes*, who figures the species **Bb** on pages 22 and 26 as *Lepus marinus major*, and on the third *Lepus marinus* of Rondelet, 1554, page 526, which is also **Bb**. The second species *Tethys fimbria* is based on the *Fimbria* of Bohadsch, which he thinks seems to be distinct. We now know that the two species are one (**Bb**).

To sum up, we have now established the following facts :—

Linnaeus, 1758 :	<i>Tethys</i>	A with a mistake in the diagnosis.
	<i>T. limacina</i>	An indeterminate species of genus A .
	<i>T. leporina</i>	Aa₁ (probably).
Bohadsch, 1761	<i>Lernaea</i>	Aa₁ and Aa₂ .
	<i>Fimbria</i>	Bb .
Linnaeus, 1767	<i>Aplysia</i>	A .
	or <i>Laplysia</i>	
	<i>L. depilans</i>	<i>T. limacina</i> and <i>T. leporina</i> L. 1758, and <i>Lernaea</i> Bohadsch, 1761, see above.
	<i>Tethys</i>	B .
	<i>T. leporina</i>	Bb .
	<i>T. fimbria</i>	Bb .

Thus we get *Tethys* for genus **A**. The species **Aa₁** could be called *T. leporina* Linnaeus, 1758 (based only on the fact that the figure of Rondelet shows no shell foramen and has no broadly united parapodia; although it is probably **Aa₁**, this is not certain). For **Aa₂** we have *Tethys depilans* (Linnaeus, 1767, by exclusion of *T. limacina* and *T. leporina*. For **B** we get some later name and for **b** the specific trivial name *fimbria* Linnaeus, 1767. A strict application of the *Règles* results in two certain names only, *Tethys* Linnaeus, 1758, for **A** and the trivial name *fimbria* Linnaeus, 1767, for **b**.

The strict application of the *Règles* becomes the more undesirable since there is an enormous literature on these animals in which the names used are of Linnaeus, 1767, and not those of Linnaeus, 1758.

Further History of the Names up to 1823.

Poiret, 1789, *Voyage en Barbarie* 2 : 2, correctly describes the species **Aa₁** under the name *Laplysia fasciata*, saying that it differs from *L. depilans*. I have shown above that *L. depilans* comprised both

Aa₁ and **Aa₂**. Here Poiret makes a choice and designates **Aa₁** as *Laplysia fasciata* nov., so that **Aa₂** gets the name [*L*] *Aplysia depilans*.

Gmelin, 1791, *Systema Naturae* (ed. 13) : 3103, copies the diagnosis of *Laplysia* Linnaeus, 1767, but gives the right name *Aplysia*. He gives a diagnosis of *A. depilans* so that it is restricted to **Aa₂** and adds *A. fasciata* (**Aa₁**) as Poiret gives it.

Barbut, 1794, *Genera vermium* : 31 gives two figures of *Laplysia depilans* on plate 3. I have not seen this work, but according to Blochmann, 1884, *Mitt. zool. Staz. Neapel* 5 : 43, his *Laplysia depilans minor* is **Aa₃** from the English coasts, while his *Laplysia depilans major* is **Aa₂**, the real *A. depilans*.

Rathke, 1799, *Skr. nat. hist. Selsk.* 5 : 85, gives a description of an *Aplysia* from Christiansund (near the Trondhjemsfjord, not, as Pilsbry says, near Christiania). In the explanation of Tab. 3, fig. 12 he gives it the name *Aplysia rosea*. The *Aplysia* from the Norwegian coast is **Aa₃**, which, for the first time, receives a name.

The first good zoological treatise on the genus *Aplysia* after Bohadsch is that of Cuvier, 1803, *Ann. Mus. Hist. nat., Paris* 2 : 287. Cuvier describes three new species of *Laplysia*, of which the first two, *L. camelus* and *L. alba*, both seem to belong to **Aa₁**. The third, however, *Laplysia punctata*, which is **Aa₃**, the *A. rosea* Rathke, 1799, is still known by Cuvier's name, although the older name of Rathke has precedence according to the *Règles*.

Renier, 1804, *Prospetto della Classe dei Vermi* : 22, describes the papillae of **Bb** under the name *Hydatis varia*, as worms attached to *Tethys leporina*. This is the beginning of a curious discussion but it was eventually proved that the so called "parasites" on the back of *Tethys* (**B**) were not worms, but the easily detachable papillae of this Nudibranch.

J. Sowerby, 1806, *British Miscellany* : 111, describes an English *Aplysia* as *A. hybrida*. This is a synonym of *A. punctata* Cuvier and *A. rosea* Rathke.

Cuvier, 1808, *Ann. Mus. Hist. nat. Paris* 12 : 257, in a memoir on *Tethys* which he spells *Thethys* (**B**), points out that the two species of Linnaeus are probably but one.

Rudolphi, 1819, *Entozoorum synopsis* : 573, gives *Hydatis varia* Renier, 1804, which he mistakenly calls *Hydatula varia*, the new name of *Phoenicurus varius*. Since the name of a part of an animal can be used for the whole animal, *Phoenicurus* would replace *Tethys* (**B**) but the name is antedated by *Phoenicurus* Forster, 1817, *Syn. Cat. Brit. Birds* : 16.

Otto, 1821, *Conspectus animalium . . . 1* : 294, gives a diagnosis of these papillae under the name *Vertumnus thetydicola*, and a full description with good figures in 1823, *Nova Acta Acad. Caes. Leop.* 11 : 294, pl. 41, where the name is spelled *Vertumnus thetidicola* in

the text and *thethydicola* on the plate. *Vertumnus* thus becomes the first generic name available under the Règles.

It is now possible to give a list of the names of the animals under discussion if the Règles are strictly applied, with the exclusion of Bohadsch's names, which have been suppressed by the Commission in *Opinion* 185 (1944, *Opinions and Declarations rendered by the International Commission on Zoological Nomenclature* 3 : 37—52).

- A *Tethys* Linnaeus, 1758 (although the diagnosis contains a mistake).
- a₁ *Laplysia fasciata* Poiret, 1789 (*Tethys leporina* Linnaeus, 1758 is an uncertain species).
- a₂ *Laplysia depilans* Linnaeus, 1767 (subsequent limitation by Poiret, 1789, and Gmelin, 1791).
- a₃ *Aplysia rosea* Rathke, 1799.
- B *Vertumnus* Otto, 1821.
- b *Tethys fimbria* Linnaeus, 1767.

Subsequent History of the Names.

For the species of *Aplysia*, Cuvier, 1817, *Règne animal* 2 : 398, seems to be the original from which the names *Aplysia fasciata* (Aa₁), *A. depilans* (Aa₂) and *A. punctata* (Aa₃) have come into general use. Blochmann, 1884, *Mitt. zool. Staz. Neapel.* 5 : 28, in his excellent monograph on the APLYSIIDAE of the Gulf of Naples, unfortunately changed the name of Aa₁ to *A. limacina* Linnaeus, which is an indeterminate South Sea species. Consequently many (physiologists and others) have wrongly used this name for *A. fasciata*.

In 1895 Pilsbry, who was preparing his beautiful monograph on the APLYSIIDAE (Pilsbry, 1895—96, *Tryon's Manual of Conchology* 16 (62, 63) : 59—161) published a paper (*Proc. Acad. nat. Sci. Philad.* 1895 : 347) in which he pointed out that *Tethys* Linnaeus, 1758, was an older name for *Aplysia* Linnaeus, 1767, both being names for the genus A. Apparently as a concession to tradition, he called the family APLYSIIDAE. For the species a₁ he used the trivial name *leporina* Linnaeus, 1758, instead of *fasciata* Poiret, 1789. We have seen above that this name stood for Rondelet's first *Lepus marinus*. If this animal is a European animal—and there is some reason to suppose it to be—and if his picture is right in showing no mantle foramen and no broadly united parapodia, then, *per exclusionem*, we may regard this animal as Ad₁ and therefore as *Tethys leporina* Linnaeus, 1758, only with a mark of interrogation. Moreover, the name *Tethys leporina* Linnaeus, 1767, is so widely known and so generally used for the species Bb that it seems a source of hopeless confusion to adopt it for Aa₁. Fortunately, in the forty years since Pilsbry's publication, although it is the leading monograph on the family, only a small minority of taxonomists has adopted his names. I have examined the literature and find that at least 412 authors (including 180 since 1895)

have used *Aplysia* as the name for genus **A**, while only 36 authors have used the name *Tethys* for that genus. At least 130 authors have used *Tethys* for genus **B**. Most of the authors who use *Tethys* for genus **A** still retain the familiar name APLYSIIDAE for the family. Von Jhering at first followed Pilsbry but later (1922, *Abh. Arch. Molluskenk.* 1 : 1) used *Aplysia* for genus **A** and *Tethys* for genus **B**, arguing that in a general publication it is necessary to use the names as they are known to the general reader. Thiele too at first follows Pilsbry, but in his important *Handbuch der Syst. Weichtierkunde* 1 (2) : 395, 447 published in 1931 he used *Aplysia* for genus **A** and *Tethys* for genus **B**. Odhner, Pruvot and Eales are among the more important recent writers who use *Aplysia* for **A**.

The species **Aa**₁ can only be called *Tethys leporina* Linnaeus, 1758, if the first species of Rondelet is **Aa**₁, about which there seems to be some doubt, or rather, the certainty is not 100 per cent. There is also the confusion that the name *Tethys leporina* Linnaeus, 1767, has been widely used for the species **Bb**. If this name is rejected, the species **Aa**₁ must be called *Tethys* (or *Aplysia* if this name is placed on the *Official List*) *fasciata* Poiret, 1789. Blochmann and others following him, as remarked above, have used the name *Aplysia limacina* Linnaeus, 1758, which is certainly wrong. I have listed 61 authors who use *A. fasciata* Poiret, 1789, 51 authors who use the erroneous *A. limacina* Linnaeus, 1758, and only 3, besides Pilsbry, who use *Tethys leporina* Linnaeus, 1758, for the species **Aa**₁.

As regards the species **Aa**₂, we have seen that *Aplysia depilans* Linnaeus, 1767, comprises all the species of that genus known to Linnaeus, notably the two species included in *Lernaea* Bohadsch, which are **Aa**₁ and **Aa**₂ respectively. Poiret, 1789, eliminated the species **Aa**₁ by describing it as *A. fasciata* and Gmelin, 1791, restricted the name *A. depilans* to the species **Aa**₂. All subsequent authors (111 publications) have accepted the name as thus restricted.

The third species (**Aa**₃) was first named *A. rosea* Rathke, 1799 and, by the *Règles*, should bear that name, but it is almost universally known (92 publications) as *A. punctata* Cuvier, 1803 while *A. rosea* has been used only in four publications since Rathke.

The controversy regarding the parasitic nature of the dorsal papillae of *Tethys* (genus **B**) was settled when Vérany, 1842, *Isis* 4 : 252 and Krohn, 1842, *Arch. Anat. Physiol. Lpz.* : 418 showed that they were really papillae and not parasitic worms, as they had been regarded previously. Strictly, the name *Tethys* Linnaeus, 1767, cannot be applied to genus **B** and *Vertumnus* Otto, 1821, should be used. Actually 130 authors who treat of the complete animal have used the name *Tethys* and only 7 some other name. There is but one species known (**Bb**), although Linnaeus, only knowing the animal from literature, formed two species, *T. leporina* Linnaeus, 1767 (not of 1758) and *T. fimbria* Linnaeus, 1767. Both names are used, *T. leporina* being used for species **Bb** in 78 papers, while 38 authors prefer *T.*

fimbria (or *fimbriata* as sometimes wrongly written), presumably because of Linnaeus' earlier use of *T. leporina* for a species of genus A.

Conclusion and Recommendations.

The foregoing analysis shows very clearly that nothing but confusion would arise if an attempt were made strictly to apply the *Règles* to the two genera to which I have referred as genus A and genus B respectively or to the four species to which I have referred as Aa₁, Aa₂, Aa₃ and Bb respectively. It is perfectly clear also that the present state of uncertainty and diversity of practice will continue unchecked until such time as the International Commission on Zoological Nomenclature puts a stop to these difficulties by using their Plenary Powers to stabilise the generic and specific nomenclature of the species concerned.

To the above end I now submit to the International Commission the following recommendations :—

- (1) that, under suspension of the *Règles*, the following names be suppressed :—
 - (a) the generic name *Tethys* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 653, and the use of this generic name by any author prior to the publication of the 12th edition of Linnaeus' *Syst. Nat.* ;
 - (b) the following specific names :—
 - (i) *Tethys leporina* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 653 ;
 - (ii) *Tethys limacina* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 653 ;
 - (iii) *Laplysia depilans* Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1082 ;
 - (iv) all uses of the name *depilans* in the genus *Aplysia* (or *Laplysia*) prior to such use by Gmelin in the 13th edition of Linnaeus, *Syst. Nat.* ;
 - (v) *Aplysia rosea* Rathke, 1799, *Skr. nat. Hist. Selsk* 5 : 85 ;
- (2) that the name *Laplysia* Linnaeus, 1767 (*Syst. Nat.* (ed. 12) 1(2) : 1082) be emended to *Aplysia* ;
- (3) that, under suspension of the *Règles* :—
 - (a) the generic name *Tethys* Linnaeus, 1767 (*Syst. Nat.* (ed. 12) 1(2) : 1089) be validated ;
 - (b) the following specific names be validated :—
 - (i) *Tethys leporina* Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1089 ;
 - (ii) *Aplysia fasciata* Poiret, 1789, *Voy. Barbare* 2 : 2 ;

- (iii) *Aplysia depilans* Gmelin, 1791, in Linnaeus, *Syst. Nat.* (ed. 13) **1** : 3103 ;
- (iv) *Laplysia punctata* Cuvier, 1803, *Ann. Mus. Hist. nat.*, Paris **2** : 310 ;
- (c) all type selections for *Aplysia* Linnaeus, 1767, and *Tethys* Linnaeus, 1767, made prior to the proposed *Opinion* to be set aside and the types of these genera to be designated as follows :—
- Aplysia depilans* Gmelin, 1791, to be the type of the genus *Aplysia* Linnaeus, 1767 ;
- Tethys leporina* Linnaeus, 1767, to be the type of the genus *Tethys* Linnaeus, 1767² ;
- (4) that the generic names *Aplysia* Linnaeus, 1767, and *Tethys* Linnaeus, 1767, so validated and with the above species as their respective types, be added to the *Official List of Generic Names in Zoology*.

II.—THE EARLY HISTORY OF THE PRESENT CASE PRIOR TO THE RECEIPT OF DR. ENGEL'S APPLICATION IN 1934

2. The problem dealt with in the present *Opinion* was first brought to the attention of the International Commission through the inclusion of *Aplysia* in a long list of "Nomina Conservanda" submitted in August 1915 by the late Professor Carl Apstein (Berlin), a Member of the Commission, for validation *en bloc* under the Plenary Powers. This list had at that time recently been published in Berlin (Apstein, 1915, *SitzBer. Ges. naturforsch. Freunde Berlin* **1915** (No. 5) : 119—202). The proposal submitted in regard to this particular case (: 182) was that the Commission should use its Plenary Powers to validate the generic name *Aplysia* Linnaeus, 1767, with *Laplysia depilans* Linnaeus, 1767, as type species.

3. In 1922 the International Commission in *Opinion* 74 (*Smithson. misc. Coll.* **73** (No. 1) : 32—34) rejected Professor Apstein's proposal on the ground that it had no power to use its

² For the subsequent modification by Dr. Engel of this proposal in the light of the statement later furnished by the Nomenclature Committee of the Malacological Society of London (paragraph 11), see paragraph 13.

Plenary Powers, except in relation to individual cases for which full data were supplied. At the same time the Commission indicated its willingness to consider names included in Professor Apstein's list, if submitted separately with "reasonably complete evidence".

4. In a different aspect this case was brought before the International Commission again in March 1924 when the then Secretary (the late Dr. C. W. Stiles) submitted to it—in Circular Letter 78—a proposal by Professor Apstein for the validation under the Plenary Powers of the names of a number of genera of Molluscs. Although stated at the time to be derived from the list submitted in 1915 (paragraph 2 above), the list submitted in 1924 was much shorter than its predecessor and the proposals submitted were not in all cases the same. In the list of 1924 the name *Aplysia* Linnaeus was omitted, but the name *Tethys* Linnaeus, 1758, made its appearance, the request in this case being that the Commission should use its Plenary Powers to designate *Tethys leporina* Linnaeus, 1758, as its type species. In 1926 it was decided to give public notice of the possible use of the Plenary Powers in relation to the generic names contained in the list of 1924.

5. The publication of the foregoing notice in the serial publication *Nature* elicited two comments in regard to the present case, the first, from Miss Nellie B. Eales (*Reading University, Reading, England*), the second, from Dr. H. Engel (*Zoologisch Museum, Amsterdam, The Netherlands*). The general tenour of these communications was the same: Miss Eales (letter of 17th June 1924) expressed the view that the name *Aplysia* Linnaeus, 1767, should be retained for the Sea Hare, and so also did Dr. Engel (letters of 8th September 1926 and 10th January 1927). In the second of these letters Dr. Engel wrote: "Strictly applied, the Rules of Nomenclature require that the name *Tethys* L., 1758, be used for the well known Tectibranch Molluscs, the sea-hares of the Mediterranean (commonly called *Aplysia* L., 1767). The equally well-known Nudibranchiate Mollusc with the mouth-sail (commonly called *Tethys* L., 1767) has to be called *Vertumnus* Otto, 1823. But the names *Aplysia* L., 1767, for the Tectibranchiates and *Tethys* L., 1767, for the Nudibranchiates are so generally used in all textbooks and manuals of zoology

and in all physiological and anatomical scientific contributions that the change of names would cause great confusion ! ”

6. On receipt of the first of these communications, Dr. Stiles consulted Dr. Paul Bartsch (*Curator of Mollusks and Cenozoic Invertebrates, Smithsonian Institution, United States National Museum, Washington, D.C., U.S.A.*), who on 12th August 1924 replied as follows :—

Pilsbry has so beautifully handled this subject in a paper entitled “ On the status of the names *Aplysia* and *Tethys* ”, in the Proceedings of the Academy of Natural Sciences of Philadelphia, 1895, pages 347 to 350, that there is no room for further discussion.

Your correspondent is evidently quoting from memory and has certain sentimental notions about these names, which have no status in the Nomenclature.

7. This question was again placed by the Secretary before Dr. Bartsch on receipt of Dr. Engel’s letter of 10th January 1927 (paragraph 5 above). Dr. Bartsch, in replying on 28th April 1928, expressed regret at the delay which had occurred and then proceeded as follows :—

Again I wish to say that personally I am disinclined to tamper with the rules. These groups are so small that it does not make a bit of difference really what name is used. It is just a question of deciding upon it and doing it. You cannot change the past synonymy. That will always arrange itself under whatever ruling is adopted. Every exception opens another door for more exceptions, and I am “agin” it.

III.—THE HISTORY OF THE CASE SUBSEQUENT TO THE RECEIPT OF DR. ENGEL’S APPLICATION

8. On some date in 1934 Dr. Engel’s lengthy application, which (as has been explained in paragraph 1 of the present *Opinion*) was later summarised by Mr. Winckworth for consideration by the Commission was received in the Offices of the Commission, and on 22nd October of that year Dr. Stiles, then Secretary to the Commission wrote to Dr. Henry A. Pilsbry. (*Academy of Natural Sciences of Philadelphia, Philadelphia, Pennsylvania, U.S.A.*) stating that he had received a sixty-one page

manuscript on this case from Dr. Engel, and asking for his views on "a suspension of the rules in this case, in order not to upset the literature too much". Dr. Pilsbry on 25th October 1934 acknowledged Dr. Stiles' letter as follows :—

I have received Engel's exhaustive and learned paper on *Aplysia* vs. *Tethys* and given it a cursory once-over. I am inclined to advocate the suspension of the rules in such cases, in general ; but I do not see the way clear to endorse all of the recommendations Engel makes for generic and specific nomenclature of the two genera involved, as they are all dead against the rules . . . However, I will give it careful consideration.

9. It was not possible for the International Commission's Secretariat to deal with so long a paper as the submitted by Dr. Engel, and accordingly on 16th November 1934 Dr. Stiles advised Dr. Engel to arrange for the publication of his paper. Acting on this suggestion, Dr. Engel submitted his paper to the serial publication *Temminckia* in which it was published under the title "On the names of the genera *Tethys* and *Aplysia*" in the early part of 1936 (*Temminckia*, 1 : 221—266). As so published, this application was re-submitted by Dr. Engel on 27th June 1936.

10. This case was not included in the Agenda for the Session of the International Commission held in Lisbon in 1935 and no further action had been taken in regard to it at the time when, following the election of Mr. Francis Hemming to be Secretary to the International Commission, the papers relating to this and other current cases were transferred to his care in 1938. On receipt, the paper relating to this case was then given the Registered Number Z.N.(S.)22. It had not been found possible to make any further progress with this case when in September 1939 the records of the Commission were evacuated from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for the publication in the newly established *Bulletin*. Even after the establishment of the *Bulletin*,

the handling of this case presented serious difficulties, for it would clearly have been impossible to devote nearly fifty pages of that new periodical to the publication of a single paper at a time when large numbers of much shorter applications were awaiting publication and, owing to paper rationing, shortage of labour at the printing works and similar causes, great delays in publication were being experienced. This difficulty was finally overcome by an arrangement under which, in agreement with Dr. Engel, the late Mr. R. Winckworth, who was personally interested to promote the reaching of a decision in this case, kindly undertook to prepare a summary of Dr. Engel's paper. The summary prepared by Mr. Winckworth was, on its receipt, submitted to Dr. Engel by whom it was approved. After further correspondence between the Secretary and Dr. Engel on questions of presentation and form, the terms of the application were finally settled on 4th February 1948. The summary so prepared by Mr. Winckworth was constituted the "Statement of the Case" for the purposes of the International Commission and has been given in paragraph 1 of the present *Opinion*.

11. When in 1944 he was first invited by the Secretary to prepare for the consideration of the International Commission a summary of the paper on this case which before the war had been published in *Temminckia*, Mr. Winckworth considered it desirable to seek the views of the Nomenclature Committee of the Malacological Society of London on the recommendations submitted to the Commission by Dr. Engel. Mr. Winckworth accordingly prepared an abstract of those proposals which were considered by the Nomenclature Committee of the Society at a meeting held on 10th November 1944. On 19th November 1944 Mr. Winckworth communicated the following statement setting out the conclusions reached by the Committee :—

THE NAMES *APLYSIA* AND *TETHYS* (CLASS GASTROPODA):
STATEMENT OF THE VIEWS OF THE NOMENCLATURE
COMMITTEE OF THE MALACOLOGICAL SOCIETY OF
LONDON.

(Communicated by R. Winckworth)

Dr. H. Engel's paper on the names *Tethys* and *Aplysia* (Engel, 1936, *Temminckia* 1: 221—266) was considered by the Nomenclature

Committee of the Malacological Society of London on 10th November, 1944. An abstract of the questions at issue had previously been circulated. Four members¹ of the Committee were present at the discussion; Dr. N. B. Eales and Dr. K. White attended and gave evidence.

With one exception (the use of *Tethys leporina*) Dr. Engel's proposals were unanimously supported by those present. It was resolved to recommend:—

- (i) the adoption of *Aplysia* Linnaeus, 1767, and *Tethys* Linnaeus, 1767, as nomina conservanda²; and the suppression of *Tethys* Linnaeus, 1758;
- (ii) the adoption of *Aplysia depilans* Linnaeus, 1767 (as restricted by Gmelin, 1791), *A. fasciata* Poiret, 1789, and *A. punctata* Cuvier, 1803; and the suppression of *Tethys leporina* Linnaeus, 1758, and *Aplysia rosea* Rathke, 1799;
- (iii) the adoption of *Tethys fimbria* Linnaeus, 1767; and the suppression of *T. leporina* Linnaeus, 1767³.

It should be added that the two members⁴ of the Committee not present at the meeting both dissent from resolutions (i) and (ii), but agree to resolution (iii). They wrote recommending strict application of the Règles and the use of *Tethys* Linnaeus, 1758, for *Aplysia* and *Vertumnus* Otto, 1821, for *Tethys* Linnaeus, 1767.

12. On 14th September 1947 a notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the proposed stabilisation of the names *Tethys* and *Aplysia* for use in the sense commonly attached to those names.

¹ Dr. A. T. Hopwood (*Chairman*), Dr. L. R. Cox, A. S. Kennard, R. Winckworth (*Secretary*).

² *Aplysia* Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1 : 1072 (*Aplysia*), 1082 (*Laplysia* in error) is monotypical with type *Laplysia depilans* Linnaeus, 1767 (Gastropoda Opisthobranchia, Order Aplysiomorpha). *Tethys* Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1 : 1072 (*Tethis* in error), 1089 (*Tethys*), type *T. fimbria* Linnaeus, 1767, designated by Gray, 1847, as *T. fimbriata* (Gastropoda Opisthobranchia, Order Nudibranchia). It is virtually monotypical, since the two original specific names, *T. leporina* and *T. fimbria* refer to the same species. For other references see Engel's paper.

³ The use of the name *Tethys leporina* is likely to cause confusion, since it has been applied to animals of two different Orders of Mollusca, not only by Linnaeus, in 1758 and 1767, but also by recent authors.

⁴ A. E. Salisbury, J. R. le B. Tomlin.

13. In November 1947 the Secretary to the Commission sent to Dr. Engel a copy of the statement furnished by the Nomenclature Committee of the Malacological Society of London (paragraph 11 above), asking him to consider the possibility of modifying his proposals on the one question where he and the members of the Committee were in disagreement, namely whether, as advocated by Engel, the nominal species *Tethys leporina* Linnaeus, 1767, should be designated as the type species of *Tethys* Linnaeus, 1767, or whether, as advocated by the Nomenclature Committee, the nominal species *Tethys fimbria* Linnaeus, 1767, should be so designated. On 4th February 1948 Dr. Engel replied as follows, giving his support to the course recommended by the Committee :—

Although it is my opinion, as expressed in my paper published in *Temminckia* in 1936, that the choice of the name *Tethys leporina* Linnaeus, 1767, for the type species of the genus *Tethys* Linnaeus, 1767, is to be preferred to the name *Tethys fimbria* Linnaeus, 1767, owing to its having been used by so many and such prominent authors, I now adopt the suggestion of the Nomenclature Committee of the Malacological Society of London that the latter name should now be approved by the International Commission. The use of the name *Tethys leporina* might, I agree, cause confusion in view of the fact that Pilsbry (1896) used that name for the species known as *Aplysia fasciata*. Moreover, I consider that the course now proposed is a due honour to that eminent zoologist Bohadsch who in 1761 proposed the name *Fimbria*, a name which, however, the International Commission found it necessary (in *Opinion* 185) to suppress, in common with all other names proposed in Bohadsch's work, in order to avoid the confusion which would have followed the acceptance of that work.

IV.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

14. The present application was considered by the International Commission on Zoological Nomenclature at the Eleventh Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948, at 0930 hours. The following is an extract from the portion of the Official Record of the Proceedings of the International Commission

setting out (1) the discussion which took place on the present application at the foregoing meeting, and (2) the decision then reached on it by the Commission (Paris Session, 11th Meeting, Conclusion 27) (1950, *Bull. zool. Nomencl.* **4** : 301—304) :—

THE COMMISSION had under consideration a proposal (file Z.N.(S)22) submitted by Dr. H. Engel (Netherlands) that the Commission should use their Plenary Powers to validate the long established usage of the generic names *Tethys* and *Aplysia* (Class Gastropoda), to designate the type species of those genera in a manner which would eliminate all further possibility of confusion in regard to the foregoing names, and take certain other action incidental thereto.

In the discussion on this proposal, the view was generally expressed that a decision on this case was long overdue, both because of the importance of the names concerned and because of the excessive delays which had occurred in the handling of this case by the Commission.

COMMISSIONER H. BOSCHMA (NETHERLANDS) said that he shared the general view that a decision ought now to be taken by the Commission for stabilising the usage of the names *Tethys* and *Aplysia* ; he pointed out however that the application submitted asked also for decisions in regard to certain specific trivial names which were not directly concerned with the main problem at issue. He suggested that the Commission should deal as proposed with the names *Tethys* and *Aplysia* but that they should defer taking decisions regarding the portion of the application which related to specific trivial names not directly involved in the stabilisation of the foregoing generic names.

THE ACTING PRESIDENT (MR. FRANCIS HEMMING) said that it would be impossible to deal with the generic names *Tethys* and *Aplysia* without at the same time dealing with the associated question of the trivial names of the species to be designated as the type species of those genera. The question of the trivial names of the other species dealt with in the present

application could however be dealt with separately at a later stage, although the adoption of this course would offend against the canon suggested by Commissioner Boschma in another case that the Commission should in future carefully abstain from their former practice of giving answers to a part only of any given application submitted to them for decision.

IN FURTHER DISCUSSION it was generally agreed that the questions submitted in the present application in regard to certain specific trivial names, other than those of the species to be specified as the type species of the genera *Tethys* and *Aplysia* might properly be deferred for later consideration, provided, first, that these matters were brought to a decision as soon as possible after the close of the present Session, and, second, that the postponement of a decision on this part of the application submitted should not be held available to be cited as a precedent for similar action on any future occasion.

THE COMMISSION agreed :—

- (1) that under Article 19 of the *Règles* the spelling of the generic name *Laplysia* Linnaeus, 1767 was to be emended to *Aplysia* ;
- (2) to use their Plenary Powers :—
 - (a) to suppress for all purposes the generic name *Tethys* Linnaeus, 1758, and any other use of that name, prior to the publication of the generic name *Tethys* Linnaeus, 1767 ;
 - (b) to suppress, for all purposes, other than those of Article 35, the use of the genus *Tethys* Linnaeus 1767, of the specific trivial names *leporina* and *limacina* ;
 - (c) to suppress all uses of the specific trivial name *depilans* in the genus *Aplysia* (emend. of *Laplysia*) Linnaeus, 1767, prior to its publication in the combination *Aplysia depilans* by Gmelin in 1791 ;
 - (d) to validate the generic name *Tethys* Linnaeus, 1767 ;

(e) to validate the undermentioned trivial names and to direct that those names were to be used in preference to any other trivial names for the species respectively concerned :—

(i) the trivial name *depilans* as published in the binominal combination *Aplysia depilans* by Gmelin in 1791 ;

(ii) the trivial name *fimbria* as published in the binominal combination *Tethys fimbria* by Linnaeus in 1767 ;

(f) to set aside all type selections for the genera *Aplysia* Linnaeus, 1767, and *Tethys* Linnaeus, 1767 made prior to the present decision, and to direct that the type species of these genera shall be the species specified below :—

<i>Name of genus</i>	<i>Type species</i>
<i>Aplysia</i> Linnaeus, 1767	<i>Aplysia depilans</i> Gmelin, 1791
<i>Tethys</i> Linnaeus, 1767	<i>Tethys fimbria</i> Linnaeus, 1767

- (3) to place on the *Official List of Generic Names in Zoology* the generic names *Aplysia* Linnaeus, 1767, and *Tethys* Linnaeus, 1767 (Class Gastropoda, Order Opisthobranchiata) with the type species severally specified above, and on the *Official List of Specific Trivial Names in Zoology* the specific trivial names *depilans* Gmelin, 1791 (as published in the binominal combination *Aplysia depilans*) and *fimbria* Linnaeus, 1767 (as published in the binominal combination *Tethys fimbria* ;
- (4) without prejudice to the general principle that decisions should be given by the Commission on all questions raised in any given application and on the strict understanding that the action now to be taken should not be held available to be cited on any future occasion as a precedent in favour of dilatory procedure, to postpone for further consideration the question of fixing, under the plenary powers, the identity of the species to which the undermentioned specific trivial names should apply :—
- fasciata* Poiret, 1789 (as published in the binominal combination *Aplysia fasciata* Poiret, 1789 ;

punctata Cuvier, 1803 (as published in the binominal combination *Laplysia* [sic] *punctata* Cuvier, 1803 ;

- (5) to request the Secretary to the Commission to re-submit the portion of Dr. Engel's application relating to the names specified in (4) as soon as possible after the close of the present Session, with a view to a decision being taken by the Commission thereon without further delay ;
- (6) to render an *Opinion* setting out the decisions specified in (1) to (5) above.

15. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

- Aplysia* (emend. of *Laplysia*) Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1082
- depilans*, *Laplysia*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1082
- depilans*, *Aplysia*, Linnaeus, 1791, in Linnaeus, *Syst. Nat.* (ed. 13) 1 : 3103
- fimbria*, *Tethys*, Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1089
- Laplysia* Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1082
- leporina*, *Tethys*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 653
- limacina*, *Tethys*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 653
- Tethys* Linnaeus, 1758, *Syst. Nat.* (ed. 10) 1 : 653
- Tethys* Linnaeus, 1767, *Syst. Nat.* (ed. 12) 1(2) : 1089

16. The genders of the generic names *Aplysia* Linnaeus, 1767, and *Tethys* Linnaeus, 1767, referred to in the decision quoted in paragraph 14 are feminine.

17. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Third Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 94).

18. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

19. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

20. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression “trivial name” and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word “trivial” appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression “specific name” was substituted for the expression “trivial name” and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

21. 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.

22. The present *Opinion* shall be known as *Opinion Two Hundred (200)* of the International Commission on Zoological Nomenclature.

DONE in London this Sixteenth day of November, Nineteen Hundred and Fifty-Three.

*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

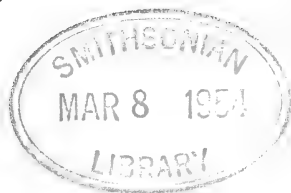
FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 3. Part 20. Pp. 267—274

OPINION 201

Validation, under the Plenary Powers, of the generic name *Necator* Stiles, 1903 (Class Nematoda) (correction of an error in *Opinion* 66)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 201

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

Senor Dr. Angel CABRERA (*La Plata, Argentina*).

Mr. Francis HEMMING (*London, England*) (*Secretary to the Commission*).

Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).

Dr. Th. MORTENSEN (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

Class 1952

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Professor J. R. DYMOND (*University of Toronto, Canada*).

Dr. James L. PETERS (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*) (*Vice-President of the Commission*).

Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

Class 1955

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Professor Béla HANKÓ (*University of Debrecen, Hungary*).

Dr. Tadeusz JACZEWSKI (*Polish Zoological Museum, Warsaw, Poland*).

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).

Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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

Dr. Henning LEMCHE (*Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark*).

Professor Kamel MANSOUR (*King Fouad University, Cairo, Egypt*).

Professor Z. P. METCALF (*North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.*).

Mr. N. D. RILEY (*British Museum (Natural History), London, England*).

Professor Ragnar SPÆRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 201

VALIDATION, UNDER THE PLENARY POWERS, OF THE GENERIC NAME "NECATOR" STILES, 1903 (CLASS NEMATODA) (CORRECTION OF AN ERROR IN "OPINION" 66)

RULING :—(1) The generic name *Necator* Sclater & Saunders, 1896, an emendation of the name *Nicator* Finsch & Hartlaub, 1870 (Class Aves), is hereby suppressed for all purposes under the Plenary Powers, and the name *Necator* Stiles, 1903 (Class Nematoda) is hereby validated under those powers. (2) The entry of the name *Necator* Stiles, 1903 (gender of name : masculine), made in the *Official List of Generic Names in Zoology* in accordance with the directions given in *Opinion* 66 is hereby confirmed. (3) The name *Necator* Sclater & Saunders, 1896, is hereby added to the *Official Index of Rejected and Invalid Generic Names in Zoology* as Name No. 9.

I.—THE STATEMENT OF THE CASE

In December 1943, Mr. Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, discovered, when checking the entries in the *Official List of Generic Names in Zoology*, that the name *Necator* Stiles, 1903 (Class Nematoda) placed on that *List* in the Commission's *Opinion* 66 was an invalid junior homonym of the name *Necator* Sclater & Saunders, 1896 (Class Aves). The following is the Minute on this subject placed by Mr. Hemming on the File (Z.N.(S.)366) then opened for this subject :—

THE NAME "NECATOR" STILES, 1903, AN INVALID JUNIOR HOMONYM OF "NECATOR" SCLATER & SAUNDERS, 1896

It is evident that my recent decision that every entry on the *Official List of Generic Names in Zoology* will need to be checked in detail by myself, with the assistance, where required, of specialists in the groups concerned, before the *Official List* can be published in book form was well justified, for already I have found in the first of the *Opinions* in

which names were placed on this *List* that a name which is invalid as a junior homonym of another name consisting of the same word was then placed on the *Official List*.

2. The invalid name placed on the *Official List* in *Opinion* 66 (1915, *Smithson. Publ.* 2359 : 171—176) was the name *Necator* Stiles, 1903 (Class Nematoda). On checking the entry for this name in Neave (1940, *Nomencl. zool.* 3 : 275), I find that the foregoing name is pre-occupied by the name *Necator* Sclater & Saunders, 1896 (*Ibis* (7) 2 : 420) (Class Aves), an emendation of the name *Nicator* Finsch & Hartlaub, 1870 (*in* Decken, *Reisen Ost-Afrika* 4 : 359).

3. It is not possible at this date to determine whether this erroneous entry on the *Official List* was due to the existence of the name *Necator* Sclater & Saunders, 1896, not being known to the applicant concerned or to the Commission when it adopted *Opinion* 66 or whether the view was then taken implicitly that, as the name *Necator* Sclater & Saunders was an Emendation and not an Original Spelling, it did invalidate the later use of the same word as an Original Spelling. Any doubts on this latter question which may have existed in 1913 were, however, removed by the Commission's later *Opinion* 125 (1936, *Smithson. misc. Coll.* 73 (No. 8) (Publ. 3395) : 3—4), which laid it down that a name such as *Borus* Albers, 1850, is an invalid junior homonym of *Borus* Agassiz, 1846, an emendation of *Boros* Herbst, 1797. It will be remembered also that the present problem was considered again by the Commission at its Lisbon Session in 1935 (Lisbon Session, Fourth Meeting, Conclusion 15) (1943, *Bull. zool. Nomencl.* 1 : 40—41), when it was decided to render an *Opinion* explicitly laying down in general terms the principle stated implicitly in *Opinion* 125. The *Opinion* rendered under this decision is *Opinion* 148 (1943, *Ops. Decls. int. Comm. zool. Nomencl.* 2 : 133—144).

4. There is thus no doubt whatever that the entry on the *Official List* relating to the Nematode name *Necator* Stiles, 1903, is invalid. It will be necessary to obtain from the International Commission a decision as to the action to be taken in regard to this name before the *Official List* can be published in book form. Before this case is submitted to the Commission, it will be necessary, however, to ascertain whether Sclater & Saunders' emendation to *Necator* of the name *Nicator* Finsch & Hartlaub is in general use among ornithologists. If this is found to be the case, the Commission will need to consider the relative advantages (1) of validating the name *Necator* Stiles, 1903, by suppressing the name *Necator* Sclater & Saunders, 1896, under its Plenary Powers, and (2) of allowing the name *Necator* Stiles, 1903, to remain invalid and of removing it from the *Official List*, thereby leaving undisturbed the earlier name *Necator* Sclater & Saunders. If, however, it is found that the bird genus *Nicator* is still known by that name, the Sclater/Saunders emendation to *Necator* not having won acceptance among ornithologists, the way will be clear for the Commission to suppress the name *Necator* Sclater & Saunders, 1896, under its Plenary Powers, thereby validating the entry of the name *Necator* Stiles, 1903, on the *Official List*.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. In reply to an enquiry by the Secretary the late Mr. W. L. Sclater reported as follows in a letter dated 21st April 1944 :—

I have looked into the matter of *Nicator* and *Necator*, and I find that my father did propose very definitely the emendation of the original *Nicator* to *Necator*, I do not doubt, quite without justification under our present Rules. So far as I know, the emendation *Necator* was never used or accepted by ornithologists.

3. At Paris in 1948 the International Commission on Zoological Nomenclature suspended its By-Laws for the duration of that Session (1950, *Bull. zool. Nomencl.* 4 : 7—8), and it was in virtue of that decision that the present case was brought before the Commission later during that Session.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

4. The present application was considered by the International Commission on Zoological Nomenclature at the Eleventh Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 0930 hours. The following is an extract from the portion of the Official Record of the Proceedings of the International Commission setting out the decision reached by it in regard to this case at the foregoing meeting (Paris Session, 11th Meeting, Conclusion 26) (1950, *Bull. zool. Nomencl.* 4 : 300—301) :—

THE COMMISSION agreed :—

(1) to use their plenary powers :—

(a) to suppress for all purposes the generic name *Necator* Sclater & Saunders, 1896 (Class Aves), an emendation of the name *Nicator* Finsch & Hartlaub, 1870 ;

- (b) to validate the generic name *Necator* Stiles, 1903 (Class Nematoda);
- (2) to confirm the entry of the name *Necator* Stiles, 1903, made in the *Official List of Generic Names in Zoology* in accordance with the directions given in *Opinion* 66;
- (3) to render an *Opinion* setting out the foregoing decisions.

5. Under the provisions relating to the *Official Index of Rejected and Invalid Generic Names in Zoology*, the International Commission is required to place thereon every generic name which it either rejects under its Plenary Powers or declares to be invalid. In the present instance the entry in this *Official Index*, under the foregoing provisions, of the name *Necator* Sclater & Saunders, 1896, suppressed under the Plenary Powers in the decision quoted in paragraph 4 above, was inadvertently omitted from the Official Record of the Proceedings of the International Commission. This omission has been rectified in the Ruling given in the present *Opinion*.

6. The following is the original reference for the name which appears in the decision set out in paragraph 4 above :—

Necator (invalid emend. of *Nicator* Finsch & Hartlaub, 1870)
Sclater & Saunders, 1896, *Ibis* (7) 2 : 420

7. The gender of the generic name *Necator* Stiles, 1903, referred to in the decision quoted in paragraph 4, is masculine.

8. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Third Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 93).

9. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

10. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

11. 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.

12. The present *Opinion* shall be known as *Opinion* Two Hundred and One (201) of the International Commission on Zoological Nomenclature.

DONE in London this Sixteenth day of November, Nineteen Hundred and Fifty-Three.

*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 3. Part 21. Pp. 275—286

OPINION 202

Addition of *Diplodinium* Schuberg, 1888 (Class Ciliophora) to the *Official List of Generic Names in Zoology* with *Entodinium dentatum* Stein, 1858, as type species.



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 202

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

Senor Dr. Angel CABRERA (*La Plata, Argentina*).

Mr. Francis HEMMING (*London, England*) (*Secretary to the Commission*).

Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).

Dr. Th. MORTENSEN (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

Class 1952

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*).

Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*).

Professor Lodovico di CAPORACCIO (*University of Parma, Italy*).

Professor J. R. DYMOND (*University of Toronto, Canada*).

Dr. James L. PETERS (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*) (*Vice-President of the Commission*).

Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

Class 1955

Professor Dr. Hilbrand BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*).

Dr. William Thomas CALMAN (*Tayport, Fife, Scotland*).

Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*).

Professor Béla HANKÓ (*University of Debrecen, Hungary*).

Dr. Tadeusz JACZEWSKI (*Polish Zoological Museum, Warsaw, Poland*).

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).

Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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

Dr. Henning LEMCHE (*Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark*).

Professor Kamel MANSOUR (*King Fouad University, Cairo, Egypt*).

Professor Z. P. METCALF (*North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.*).

Mr. N. D. RILEY (*British Museum (Natural History), London, England*).

Professor Ragnar SPÄRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 202

ADDITION OF "DIPLODINIUM" SCHUBERG, 1888 (CLASS CILIOPHORA) TO THE "OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY" WITH "ENTODINIUM DENTATUM" STEIN, 1858, AS TYPE SPECIES

RULING :—(1) Having regard to the fact that, as the International Commission is informed, it is no longer considered by specialists in the group concerned that Schuberg (1888) was in error when he identified with *Entodinium dentatum* Stein, 1858, the species placed by him under that name in the genus *Diplodinium* Schuberg, 1888 (Class Ciliophora), Schuberg is to be treated as having correctly cited under the specific name *dentatum*, as published by Stein in 1858 in the combination *Entodinium dentatum*, the sole species placed by him in the genus *Diplodinium* Schuberg, of which that species is therefore the type species by monotypy. (2) The generic name *Diplodinium* Schuberg, 1888 (gender of name : neuter) (type species, by monotypy : *Entodinium dentatum* Stein, 1858, as determined by Schuberg (1888), by Kofoid and MacLennan (1932) and by Wertheim (1935), is hereby placed on the *Official List of Generic Names in Zoology* as Name No. 632. (3) The specific name *dentatum* Stein, 1858, as published in the combination *Entodinium dentatum* and as determined by the authors specified in (2) above, is hereby placed on the *Official List of Specific Names in Zoology* as Name No. 7.

I.—THE STATEMENT OF THE CASE

On 24th December 1930, the late Professor Charles A. Kofoid submitted to the International Commission on Zoological Nomenclature the following application in which he asked for a ruling on the question of the type species of the genus *Diplodinium* Schuberg, 1888 (Class Ciliophora), a nominal genus

which at that time appeared to have been based upon a mis-identified type species.

ON THE TYPE OF THE GENUS *DIPLODINIUM*
SCHUBERG, 1888 (CLASS CILIOPHORA)

By CHARLES A. KOFIOD

(Department of Zoology, University of California, Berkeley, California)

(Commission's reference Z.N.(S.)13)

In our revisions of the ciliates of the ruminant stomach we meet with a type of difficulty in nomenclature for which we wish, if possible, to have some precedent in its solution, and in any case to have your advice as to the wisest mode of procedure, with a view to eliminating further confusion by later workers in this field. I am anxious to have this point settled on the soundest possible lines.

If you will refer to the paper of Schuberg published in 1888 in vol. 3 of the *Zoologische Jahrbücher für Systematik*, page 404, you will find that Schuberg therein establishes the genus *Diplodinium* for those OPHRYOSCOLECIDAE having a second membranelle zone instead of one only. This genus is readily recognised and segregated from the other ciliates of the ruminant stomach by this character. The character is a valid one.

For the single species in this genus he cites "*Entodinium dentatum*", previously described by Stein, 1858, in *Abh. d. Kais. Böhm. Ges. Wiss.* vol. 10, pages 69—70, without figures, stating: "und die Stein weniger übersehen". In this statement he clearly takes upon himself the assumption that Stein overlooked entirely the very prominent and characteristic second membranelle zone. Stein's protozoological work is characterised throughout by meticulous care in the presentation of details. It seems wholly improbable that Stein could have overlooked so prominent and so distinctive a character as the dorsal zone. Personally, I doubt the accuracy of Schuberg's assumption. Furthermore, we have the statement of Eberlein, *Zeit. Wiss. Zool.* vol. 59, pages 269—270, that he had found species with six spines resembling Stein's "*dentatum*", without the second membranelle zone and therefore referable as originally placed by Stein in the genus *Entodinium* Stein, 1858, *Abh. Böhm. Ges.* (5) 10 S.B. : 69. Schuberg, however, uses the name "*dentatum*" in connection with the animal with the dorsal membranelle zone which he assigns to the genus *Diplodinium* Schuberg, 1888, and makes the assumption that this was the species which Stein had before him.

Several of the genera in OPHRYOSCOLECIDAE run a series of ortho-genetic pattern in which the spines increase in number from none to at least six. It is therefore theoretically probable that Stein and Eberlein were right, and that both saw a species of *Entodinium* Stein with six spines, to which Stein gave the trivial name "*dentatum*".

Schuberg was unquestionably right in the case of a species of *Diplodinium* Schuberg with six spines, and that was unquestionably the animal which Schuberg had for which he used the name "*Diplodinium dentatum*".

The question now is: Are we safe in stating that "*dentatum*" is the type species of *Diplodinium* Schuberg, but that Schuberg was wrong in assuming that this was the same as Stein's *dentatum*? If the trivial name *dentatum* is not available, may we designate some other species as the type of *Diplodinium* Schuberg and thus preserve the generic name?

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. In March 1935 the then Secretary (the late Dr. C. W. Stiles) submitted this case to the Commission in Circular Letter 290 with a suggestion that it might be found convenient to deal with it at the Session which the Commission was to hold at Lisbon in September of that year.

3. The circulation of the foregoing Circular Letter elicited the following comment from Professor Rudolf Richter (*Senckenbergische Naturforschende Gesellschaft, Frankfurt a.M., Germany*) and Dr. Robert Mertens in a letter written by the former on 18th July, 1935:—

Der Gattungsname *Diplodinium* Schuberg, 1888, is untrennbar mit den Artbegriff *Entodinium dentatum* Steinn, 1858, verbunden. Was Stein unter *Entodinium dentatum* verstanden hat, ist eine rein systematische Frage, von deren Entscheidung die Anwendung des Gattungsnamens *Diplodinium* abhängen wird.

4. Owing to the absence, through ill-health, of the Secretary (Dr. Stiles) and the fact that in consequence the papers relating to this case were not available in Lisbon, it was not possible for the International Commission to deal with this case during the Session which it held in 1935.

5. In 1938 the documents relating to this and other current cases were transferred to the care of Mr. Francis Hemming, who

in October 1936 had been elected Secretary to the Commission on the retirement of Dr. Stiles. On receipt the documents relating to this case were given the Registered Number Z.N.(S.)13. It had not been found possible to make any further progress with this case when in September 1939 the records of the Commission were evacuated from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. Work on the present case was resumed in August 1944 and in the following month the present application was sent to the printer.

6. When preparing this case for publication, the Secretary (Mr. Hemming), in agreement with Dr. Karl Jordan (then President of the Commission), came to the conclusion that, if the Commission were to take the view that the nominal genus *Diplodinium* Schuberg, 1888, was based upon a misidentified type species, it would not be appropriate for it to confine its decision to a statement to this effect, for the problem submitted would still remain unsolved until a definitive ruling had been given on the question of the species to be accepted as the type species of this genus. Accordingly, on 24th August 1944, Mr. Hemming addressed a letter to Professor Kofoid asking him for the additional information required. On 3rd January 1945, a letter dated 11th December 1944 was received by the Secretary from the late Professor Harold Kirby (*University of California, Department of Zoology, Berkeley, California, U.S.A.*) stating that Professor Kofoid, who by this time had retired, had handed to him the letter which on 24th August 1944 the Secretary to the Commission had addressed to Professor Kofoid; Professor Kirby added that, if a copy of Professor Kofoid's original application were to be sent to him, he would be glad to study the problem and to furnish his views on the issues involved. This offer was welcomed by the Secretary, and on 17th March 1945 Professor Kirby wrote a long letter containing information which threw an entirely new light upon this case, for it appeared that, during the

period which had elapsed since the original submission of the present application, further taxonomic work had satisfied leading specialists that, contrary to what had previously been thought, Schuberg, when describing his genus *Diplodinium* in 1888 had not made an error of identification when he assigned the name *Entodinium dentatum* Stein, 1858, to the only species which he placed in this genus.

7. The relevant portion of Professor Kirby's letter of 17th March 1945 was at once sent to the printer for publication in the *Bulletin*. This portion of Professor Kirby's letter is as follows :—

I do not know the date of Professor Kofoid's communication to the Commission but in his only published material on the subject Professor Kofoid has taken exactly the opposite position to that indicated in his communication to the Commission. In that communication he thought it likely that Stein really had an *Entodinium* (with one membranelle zone) ; that Schuberg was wrong in assuming that Stein overlooked the second one and he (Schuberg) had before him the same ciliate ; and that Eberlein (1895) found (and figured) the true *Entodinium dentatum* studied by Stein. But Kofoid and MacLennan (1932 : 57) in a section of their monograph on *Diplodinium* entitled " Type species of *Diplodinium* Schuberg " wrote :—

Eberlein (1895) disputed the existence of the two membranelle zones reported by Schuberg in Stein's *E. dentatum* and claimed to have found only an adoral spiral in this species. Since none of the many later workers has corroborated Eberlein's findings, but many times have found ciliates corresponding to Schuberg's description, we feel that Eberlein was mistaken, and that Stein's *E. dentatum* and Schuberg's *Diplodinium dentatum* are identical.

Wertheim (1935 : 418) gave a discussion of " *Entodinium dentatum* " which bears upon the question of whether or not the type species of *Diplodinium* was erroneously determined by Schuberg. The discussion is worthy of particularly careful consideration, because Wertheim's paper is a comprehensive monographic treatment of OPHRYOSCOLECIDAE based on studies in ruminants in Europe where Stein and Eberlein worked. Wertheim is emphatic in his opinion that the type species of *Diplodinium* is properly named *Diplodinium dentatum* (Stein, 1858) Schuberg, 1888. It is the ciliate that Stein studied and that Schuberg had before him. The distinctive caudal structure of six spines is not found in any other ophryoscolecid, and there is no doubt that Stein and Schuberg were concerned with the ciliate that Fiorentini later (and unnecessarily) named *Diplodinium denticulatum*. Eberlein was clearly mistaken in supposing that he found an *Entodinium* correspond-

ing to Stein's description. No one before or after Eberlein has seen a true *Entodinium* with this caudal structure—not even in the same host species, in the same regions, in the same material Stein studied. (All these assertions are quoted from Wertheim.)

If the International Commission places *Diplodinium* on the *Official List of Generic Names in Zoology*, it seems to me that its type can properly be given as *Diplodinium dentatum* (Stein, 1858) Schuberg, 1888, as in the monographs by Kofoid and MacLennan (1932) and Wertheim (1935). The case for this name is reasonably clear cut, and the exercise of the plenary powers should not be required. It was the only named species included in *Diplodinium* when that genus was established, and we are in a better position to know what organism the early authors dealt with than we can reach in various other protozoan groups. It may be of interest, however, that Schuberg did not actually give the combination *Diplodinium dentatum*. It is implied in his use of the name *Entodinium dentatum* and his assignment of that ciliate to the new genus *Diplodinium*.

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8. In addition, on the receipt of Professor Kirby's letter of 17th March 1945, the Secretary prepared the following explanatory note in regard to the present case for publication in the *Bulletin* :—

The application made to the International Commission by Professor Charles A. Kofoid for a ruling as to the type of the genus *Diplodinium* Schuberg, 1888 (Class Ciliophora) was contained in a letter dated 24th December 1930. This application was transferred to me by my predecessor shortly before the outbreak of war in 1939, together with the papers relating to certain other uncompleted cases then before the Commission. Owing to wartime conditions it was not

until 1944 that I was able to examine the papers relating to this and other outstanding cases with a view to their publication in the *Bulletin of Zoological Nomenclature*, which had been founded in the previous year for the purpose of publishing documents of this kind. In preparing Professor Kofoid's application for the printer, it became apparent that additional information was needed, for, if the Commission were to take the view (suggested in Professor Kofoid's application) that Schuberg was in error when he identified as *Entodinium dentatum* Stein, 1858, the species which he (Schuberg) took in 1888 as the type of his monotypical genus *Diplodinium*, it would be necessary for the Commission to indicate what was in fact the oldest nomenclatorially available name for the species so misidentified.

I accordingly wrote to Professor Kofoid on 24th August 1944, asking for information on this question. On 3rd January 1945 I received a letter dated 11th December 1944 from Professor Harold Kirby, Department of Zoology, University of California, stating that in view of his age Professor Kofoid did not feel able to deal with this matter and had asked him (Professor Kirby) to do so on his behalf. Professor Kirby's conclusions were embodied in a letter dated 17th March 1945, in which he stated that, if it was ultimately concluded that the name *Entodinium dentatum* Stein, 1858, did not apply to, and therefore could not be used for, the species selected by Schuberg as the type of the monotypical genus *Diplodinium* Schuberg, 1888, the next name (and therefore in those circumstances the correct name) for the type species of that genus was *Diplodinium denticulatum* Fiorentini, 1889 ("Intorno ai Protisti dello stomaco dei Bovini". Pavia, frat. Fusi). At the same time Professor Kirby added that he had re-examined the premises upon which Professor Kofoid's application of 1930 had been based and drew attention to the different conclusions on this subject which had later been formed by Professor Kofoid (Kofoid and MacLennan, 1932) and by Wertheim (1935).

The additional information kindly furnished by Professor Kirby on behalf of Professor Kofoid throws an entirely new light on the application now before the Commission. The relevant portions of Professor Kirby's letter are published above, in order that all the available data may be assembled for the consideration of this case.

9. Although, as already explained (paragraph 5) Professor Kofoid's application was sent to the printer in September 1944, difficulties arising from paper rationing, shortage of labour at the printing works and similar causes led to delays, as the result of which publication did not take place until June 1946 (*Bull. zool. Nomencl.* **1** : 167). When Professor Kofoid's application was published, it was accompanied both by Mr. Hemming's explanatory note (paragraph 8 above) (*ibid.* **1** : 168) and by Professor Kirby's letter (paragraph 7 above) (*ibid.* **1** : 169—170).

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

10. The present application was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948, at 1730 hours. The following is an extract from the portion of the Official Record of the Proceedings of the International Commission setting out the decision reached by it in regard to this case at the foregoing meeting (Paris Session, 13th Meeting, Conclusion 24) (1950, *Bull. zool. Nomencl.* 4 : 379—381) :—

THE COMMISSION :—

- (1) took note that it was no longer considered by specialists in the group concerned that Schuberg (1888) was in error when he identified with *Entodinium dentatum* Stein, 1858, the species placed by him under this name in the genus *Diplodinium* Schuberg, 1888 (Class Ciliophora).
- (2) agreed that, in view of (1) above, the type species of the foregoing genus was correctly cited by Schuberg under the trivial name *dentatum* (as originally published by Stein in 1858 in the binominal combination *Entodinium dentatum*) ;
- (3) agreed :—
 - (a) to place the generic name *Diplodinium* Schuberg, 1888 (type species by monotypy : *Entodinium dentatum* Stein, 1858, as determined by Schuberg (1888), by Kofoid and MacLennan (1932) and by Wertheim (1935), on the *Official List of Generic Names in Zoology* ;
 - (b) to place the trivial name *dentatum* Stein, 1858 (as originally published in the binominal combination *Entodinium dentatum* and as identified by the authors specified in (a) above) on the *Official List of Specific Trivial Names in Zoology* ;
- (4) agreed to render an *Opinion* recording the decisions specified in (1) to (3) above.

11. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

dentatum, *Entodinium*, Stein, 1858, *Abh. Kais. Böhm. Ges. Wiss.*

10 : 69

Diplodinium Schuberg, *Zool. Jahrb. Syst.* 3 : 369, 404

12. The gender of the generic name *Diplodinium* Schuberg, 1888, referred to in the decision quoted in paragraph 10 above, is neuter.

13. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 106).

14. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

15. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

16. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the

Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

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

18. The present *Opinion* shall be known as *Opinion Two Hundred and Two (202)* of the International Commission on Zoological Nomenclature.

DONE in London this Seventeenth day of November, Nineteen Hundred and Fifty-Three.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

Ref.

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

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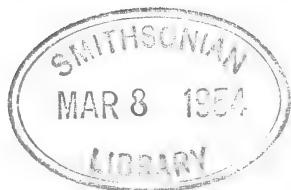
FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 3. Part 22. Pp. 287—296

OPINION 203

Validation, under the Plenary Powers, of the specific name *vulgaris* Schmeil, 1897, as published in the combination *Diaptomus vulgaris* (Class Crustacea, Order Copepoda)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 203

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

Senor Dr. Angel CABRERA (*La Plata, Argentina*).

Mr. Francis HEMMING (*London, England*) (*Secretary to the Commission*).

Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).

Dr. Th. MORTENSEN (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

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Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*).

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Professor Lodovico di CAPORIACCO (*University of Parma, Italy*).

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Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

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Professor Béla HANKÓ (*University of Debrecen, Hungary*).

Dr. Tadeusz JACZEWSKI (*Polish Zoological Museum, Warsaw, Poland*).

Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).

Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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

Dr. Henning LEMCHE (*Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark*).

Professor Kamel MANSOUR (*King Fouad University, Cairo, Egypt*).

Professor Z. P. METCALF (*North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.*).

Mr. N. D. RILEY (*British Museum (Natural History), London, England*).

Professor Ragnar SPÄRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 203

VALIDATION, UNDER THE PLENARY POWERS, OF THE SPECIFIC NAME "VULGARIS" SCHMEIL, 1897, AS PUBLISHED IN THE COMBINATION "DIAPTOMUS VULGARIS" (CLASS CRUSTACEA, ORDER COPEPODA)

RULING :—(1) Under the Plenary Powers (a) the specific name *coeruleus* Müller (O.F.), 1776, as published in the combination *Cyclops coeruleus*, is hereby suppressed for the purposes of the Law of Priority but not for those of the Law of Homonymy, and (b) the specific name *vulgaris* Schmeil, 1897, as published in the combination *Diaptomus vulgaris*, is validated for the species of the Order Copepoda (Class Crustacea) so named. (2) The specific name *vulgaris* Schmeil, 1897, as published in the combination *Diaptomus vulgaris*, is hereby placed on the *Official List of Specific Names in Zoology* as Name No. 8. (3) The specific name *coeruleus* Müller (O.F.), 1776, as published in the combination *Cyclops coeruleus*, as suppressed, under the Plenary Powers, under (1) above, is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* as Name No. 8.

I.—THE STATEMENT OF THE CASE

On 30th April 1929, the late Mr. Robert Gurney (*Oxford*) submitted the following application to the International Commission on Zoological Nomenclature :—

ON THE QUESTION OF THE OLDEST AVAILABLE
TRIVIAL NAME FOR THE SPECIES RENAMED
DIAPTOMUS VULGARIS BY SCHMEIL IN 1897
(CLASS CRUSTACEA, ORDER COPEPODA)

By ROBERT GURNEY

(*Oxford*)

(Commission's reference Z.N.(S.) 8)

In 1853 (*Bull. Soc. imp. Nat. Moscou* 26 (No. 1) : 75) Fischer

published a description under the name *Cyclopsina coerulea* and gave, *inter alia*, as synonym *Cyclops coeruleus* O. F. Müller, 1785.¹

Fischer's name was adopted by Richard, Schmeil and many other authors for a species of the genus *Diaptomus* Westwood, 1836, in Partington, *Brit. Cyclop.* 2 : 228. This species was very fully described by Schmeil in 1896 (*Bibliotheca zool.* 21 : 59). Later (1897, *ibid.* 21 : 168) Schmeil replaced the name used by Fischer, proposing the name *Diaptomus vulgaris* on the ground that Müller's species is unrecognisable. Schmeil stated: "Da Fischer seine *Cyclopsina coerulea* mit dem vollkommen unsicheren *Cyclops coeruleus* Müller identifizierte, so musste ich leider—um den für die Mitarbeiter am "Tierreich" massgebenden "Regeln" etc. gerecht zu werden—diese Art neu benennen."

Schmeil's new name has been generally, but not universally, adopted.

Now Schmeil's action seems hardly permissible. It would be correct if it could be shown that Fischer was wrong in his identification; but it just as probable that he was right as wrong—it is impossible to say.

On the other hand, if Schmeil's name should be dropped, what would be the correct name? *Diaptomus coeruleus* (O. F. Müller) or *Diaptomus coeruleus* (Fischer)? It can hardly be the former, since Müller's species is unrecognisable, and I consider that no author's name should attach to a species unless he has given an adequate description. On the other hand, *Diaptomus coeruleus* Fischer might be invalidated by the rules.

On the whole, it would be more convenient to uphold Schmeil's name *vulgaris*, even if it is not strictly correct.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. After himself having conducted certain preliminary investigations into certain bibliographical aspects of this case, the then Secretary to the Commission (the late Dr. C. W. Stiles) on 3rd January 1930 invited Miss Mary Rathbun (*United States National Museum, Washington, D.C., U.S.A.*) to express her opinion on the proposal submitted by Mr. Gurney. After an exchange of correspondence Dr. Stiles agreed to expand his request to form an invitation to Miss Rathbun and Dr. C. Dwight Marsh to furnish a joint statement of their views. This joint

¹ This date is incorrect, this name having been published in 1776 (*Zool. dan. Prodr.* : 200)

statement was furnished in the following letter from Miss Rathbun dated 25th February 1931 :—

Dr. C. Dwight Marsh has passed on the question raised by Mr. Gurney, and both he and I are in agreement to that *Diaptomus vulgaris* Schmeil is the correct usage.

3. In March 1935 Mr. Gurney's application, with the comment furnished by Miss Rathbun and Dr. Dwight Marsh, was submitted to the International Commission in Circular Letter 304.

4. In a letter dated 18th July 1935 Professor Rudolf Richter (*Senckenbergische Naturforschende Gesellschaft, Frankfurt a.M., Germany*) wrote the following letter on behalf of himself and Dr. Robert Mertens of the same Institution :—

Einen Namen *Cyclopsina coerulea* Fischer, 1853, gibt es nicht, da Fischer keine neue Art *coerulea* aufstellen wollte, sondern nur die Art *Cyclops coeruleus* Müller, 1785, in neue Verbindung mit dem Gattungsnamen *Cyclopsina* gebracht hat. Dieser Teil der Anfrage des Herrn Gurney is dadurch beantwortet.

Solange nicht Gründe dafür aufgezeigt werden, aus denen hervorgeht, dass Fischer's Identifizierung seines Materials mit Müller's Art falsch ist, muss angenommen werden, dass sie richtig ist. Es ist nicht bewiesen, dass er sich nicht durch Untersuchung von Typen oder Topotypen Unterlagen für seine Meinung geschaffen hat. Es wäre also ein Akt der Willkür, auf Grund einer Behauptung ohne Gründe die Identifizierung von Fischer als falsch zu bezeichnen und daraufhin den Namen *coeruleus* Müller, 1785, in der Auslegung von Fischer, 1853, zu streichen. Der Name *Diaptomus coeruleus* (Müller, 1785²) besteht demnach zu recht.

Wenn aber die Fachleute aus Gründen der Zweckmässigkeit den Namen *Diaptomus vulgaris* Schmeil, 1897, vorziehen, so würde die Kommission gut tun, diesen Namen durch Suspension der Regeln für gültig zu erklären.

5. This case was not included in the Agenda for the Session of the International Commission held in Lisbon in 1935 and no further action had been taken in regard to it at the time when, following the election of Mr. Francis Hemming to be Secretary to the International Commission, the papers relating to this and other current cases were transferred to his care in 1938. On the reorganisation of the Secretariat this case was then given the Registered Number Z.N.(S.)8. It had not been found possible

² For the correction of this date, see footnote ¹.

to make any further progress with this case when in September 1939 the records of the Commission were evacuated from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. After an exchange of correspondence between the Secretary and Mr. Gurney, the terms of the present application were finally settled on 15th August 1944. This application was sent to the printer in September 1944, but, owing to paper rationing, shortage of labour at the printing works and similar causes it was not until 26th June 1946 that it was actually published.

6. At the time of the final consultation between the Secretary and Mr. Gurney just before the present application was sent to the printer, Mr. Gurney furnished a supplementary note which he asked should be added to his application, in order to bring that application up to date in certain respects. This note, which was dated 15th August 1944, was accordingly annexed to the original application and the two published together. This supplementary note was as follows :—

Supplementary note by Mr. R. Gurney :—

Since the foregoing case was submitted to the Commission, the question at issue has been discussed by Rylov (1930, *Zool. Anz.* **88** : 111) and by myself (1931, *British Fresh-Water Copepoda* **1** : 158). Rylov claims to have rediscovered Fischer's species, which he finds to be specifically the same as that described by Schmeil, though differing in some details which might permit of the latter being regarded as a variety or subspecies. He therefore adopts the name *Diaptomus coeruleus* Fischer. I, on the other hand, have used the name *Diaptomus vulgaris* Schmeil on the ground that no ambiguity attaches to it, whereas *Diaptomus coeruleus* can only be used, according to the rules, with Müller's name as author, although we do not know and never can know what species Müller had before him.

7. At Paris in 1948 the International Commission on Zoological Nomenclature suspended its By-Laws for the duration of that

Session (1950, *Bull. zool. Nomencl.* 4 : 7—8), and it was in virtue of that decision that the present case was brought before the Commission later during that Session.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

8. The present application was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948, at 17.30 hours. The following is an extract from the portion of the Official Record of the Proceedings of the International Commission setting out the decision reached by it in regard to this case at the foregoing meeting (Paris Session, 13th Meeting, Conclusion 20) (1950, *Bull. zool. Nomencl.* 4 : 375—377) :—

THE COMMISSION agreed :—

(1) to use their Plenary Powers :—

(a) to suppress the trivial name *coerulus* Müller (O.F.), 1785³ (as published in the binominal combination *Cyclops coeruleus*) for the purposes of Article 25, but not for those of Article 35 ;

(b) to validate the trivial name *vulgaris* Schmeil, 1897 (as published in the binominal combination *Diaptomus vulgaris*) for the species of the Order Copepoda (Class Crustacea) so named ;

(2) to put the trivial name *vulgaris* Schmeil, 1897 (as published in the binominal combination *Diaptomus vulgaris*) on the *Official List of Specific Trivial Names in Zoology* and the trivial name *coeruleus* Müller (O.F.), 1785³ (as published in the binominal combination

³ For the correction of this date see footnote 1.

Cyclops coeruleus) on the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* ;

- (3) to render an *Opinion* recording the decisions specified in (1) and (2) above.

9. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

coeruleus, *Cyclops*, Müller (O.F.), 1776, *Zool. dan. Prodr.* : 200
vulgaris, *Diaptomus*, Schmeil, 1897, *Biblioth. zool.* **21** : 168

10. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* **5** : 106).

11. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

12. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

13. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression “ trivial name ” and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word “ trivial ” appearing also in the title of the *Official Index* reserved for recording rejected and

invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

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 Two Hundred and Three (203)* of the International Commission on Zoological Nomenclature.

DONE in London this Seventeenth day of November, Nineteen Hundred and Fifty-Three.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

Ref.

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

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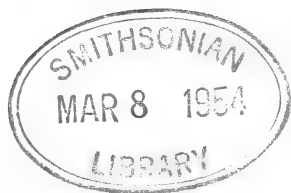
FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 3. Part 23. Pp. 297—308

OPINION 204

Determination of the species eligible to be selected as the type species of the nominal genera established by Koch (C.L.) in the portions of the work entitled *Deutschlands Crustaceen, Myriapoden und Arachniden* published in the period 1835-1842



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 204

A. The Officers of the Commission

- President* : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).
- Vice-President* : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).
- Secretary* : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

- Senor Dr. Angel CABRERA (La Plata, Argentina).
- Mr. Francis HEMMING (London, England) (*Secretary to the Commission*).
- Dr. Karl JORDAN (British Museum (Natural History), Zoological Museum, Tring, Herts, England) (*President of the Commission*).
- Dr. Th. MORTENSEN (Universitetets Zoologisk Museum, Copenhagen, Denmark).
- Dr. Joseph PEARSON (Tasmanian Museum, Hobart, Tasmania, Australia).

Class 1952

- Senhor Dr. Afranio do AMARAL (S. Paulo, Brazil).
- Professor J. Chester BRADLEY (Cornell University, Ithaca, N.Y., U.S.A.).
- Professor Lodovico di CAPORIACCO (University of Parma, Italy).
- Professor J. R. DYMOND (University of Toronto, Canada).
- Dr. James L. PETERS (Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.) (*Vice-President of the Commission*).
- Dr. Harold E. VOKES (United States Geological Survey, Washington, D.C., U.S.A.).

Class 1955

- Professor Dr. Hilbrand BOSCHMA (Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands).
- Dr. William Thomas CALMAN (Tayport, Fife, Scotland).
- Professor Teiso ESAKI (Kyushu University, Fukuoka, Japan).
- Professor Béla HANKÓ (University of Debrecen, Hungary).
- Dr. Tadeusz JACZEWSKI (Polish Zoological Museum, Warsaw, Poland).
- Dr. Norman R. STOLL (Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.).

C. Alternate Members of the Commission at the Session held in Paris in 1948

- Professor Enrique BELTRÁN (Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico).
- Dr. Edward HINDLE (Zoological Society of London, London, England).
- Dr. Arturo Ricardo JORGE (Museu Bocage, Lisbon, Portugal).
- Professor Harold KIRBY (University of California, Berkeley, California, U.S.A.).
- Dr. Henning LEMCHE (Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark).
- Professor Kamel MANSOUR (King Fouad University, Cairo, Egypt).
- Professor Z. P. METCALF (North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.).
- Mr. N. D. RILEY (British Museum (Natural History), London, England).
- Professor Ragnar SPÆRCK (Universitetets Zoologisk Museum, Copenhagen, Denmark).
- Professor Victor van STRAELEN (Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium).
- Professor Robert L. USINGER (University of California, Berkeley, California, U.S.A.).

OPINION 204

DETERMINATION OF THE SPECIES ELIGIBLE TO BE
SELECTED AS THE TYPE SPECIES OF THE NOMINAL
GENERA ESTABLISHED BY KOCH (C.L.) IN THE
PORTIONS OF THE WORK ENTITLED "DEUTSCH-
LANDS CRUSTACEEN, MYRIAPODEN UND
ARACHNIDEN" PUBLISHED IN THE PERIOD
1835—1842

RULING :—(1) In accordance with the principle illustrated by the decision given in *Opinion* 30, the generic names published for the first time by Koch (C.L.) in *Hefte* of the work *Deutschlands Crustaceen, Myriapoden und Arachniden* during the period 1835—1842, when forming new specific names for previously unnamed species are available as from the date of being so published and the type species of such a genus is determined under Rules (b), (c) and (d) in Article 30, where, as the case may be, an originally included species (i) bears the specific name *typus* or *typicus* or (ii) is the sole species so included, or (iii) bears a specific name which is tautonymous with the generic name, and, in other cases, under Rule (g) in that Article. (2) The reference in the last paragraph of the *Vorwort* to the *Erste Abteilung* of the third volume (*Drittes Heft*) of the *Uebersicht des Arachnidensystems* (published in 1842) to the single species figured in that volume for each genus as *Typus dienend* is to be accepted as constituting a selection of that species to be the type species of that genus under Rule (g) in Article 30. (3) In the case of a genus, the name of which was first published in the *Deutschlands Crustaceen*, the type selection made for that genus by Koch in the *Uebersicht* in the manner specified in (2) above is a valid selection only (a) when the genus in question was not monotypical when first named and did not contain a

species having, as a specific name, either the word *typus* or *typicus* or a word which was tautonymous with the generic name, and (b) when the species so selected was one of the species referred to the genus in the *Hefte* of the *Deutschlands Crustaceen* in which the generic name was first published, or, where two or more *Hefte* were published simultaneously and the generic name appeared in more than one of these *Hefte*, one of the species so referred in any of these *Hefte*. (4) If, on applying the foregoing decisions, specialists are of the opinion that the adoption, as the type species of any given genus, of the species so determined as such would lead to instability and confusion in the nomenclature of the group concerned, it will be open to those specialists to submit an application to the Commission for the use of the Plenary Powers. (5) The works by Koch entitled *Deutschlands Crustaceen* and *Uebersicht des Arachnidensystems* referred to in (1) and (2) above are hereby placed on the *Official List of Works Approved as Available in Zoological Nomenclature* as Works Nos. 1 and 2.

I.—THE STATEMENT OF THE CASE

On 24th November 1928 the late Dr. Arthur P. Jacot (*Shantung Christian University, Department of Biology, Tsinan, Shantung, China*) submitted the following application, which, as explained in paragraph 5 below, was published many years later in the *Bulletin of Zoological Nomenclature* :—

ON THE VALIDITY OF THE GENOTYPES DESIGNATED BY KOCH (C.L.), 1837-1842, *ÜBERSICHT DES ARACHNIDEN-SYSTEMS*, FOR GENERA, THE NAMES OF WHICH HAD BEEN FIRST PUBLISHED BY THAT AUTHOR IN 1835-1842, *DEUTSCHLANDS CRUSTACEEN, MYRIAPODEN UND ARACHNIDEN*

By the late ARTHUR P. JACOT
(Commission's reference Z.N.(S.) 90.)

In 1835-1844* Carl Ludwig Koch published his "Deutschlands Crustaceen, Myriapoden und Arachniden" at Regensburg, for the exact dates of which see Sherborn, 1923, *Ann. Mag. nat. Hist.* (9) 11 : 566—568. This was immediately reprinted by George Wolfgang Panzer as part of his "*Faunae Insectorum Germanicae initia* oder Deutschlands Insecten".

In the above work are described many species under generic names never before published.

Under date of 1837 to 1842, Koch in his "Übersicht des Arachnidensystems" arranged these various species under the generic names, describing and sub-dividing the genera and assigning one figured species to act as type. This he clearly stated in the last paragraph of the preface to volume 3 ("Vorwort zum dritten Uebersichttheft") published in 1842, where the following passage occurs :—

Die Gattungsbezeichnungen beschäftigen sich nur mit den äusserlich sichtbaren Merkmalen, auch geben die solchen beigefügten Figuren, als Typus dienend, bloss ein getreues Bild irgend einer Art der betreffenden Gattungen und der mit einfachem Microscop zu erkennenden Charaktere.

* Koch's *Deutschlands Crustaceen, Myriapoden und Arachniden* was published in parts between 1835 and 1844. His *Übersicht des Arachnidensystems* was published in 5 Hefte between 1837 and 1850. The case submitted to the International Commission relates only to the types of genera established by Koch in the portion of the *Deutschlands Crustaceen, Myriapoden und Arachniden* prior to the designation of types for those genera in 1842 in his *Übersicht des Arachnidensystems*. Accordingly, for the purposes of the present application the terminal date of publication for both these works is 1842 and is so given above.

Some authors have used as types the species first mentioned under a generic name, as though the genus was monotypic. Koch evidently had no intention of these species being so used but intended to designate the types of the genera himself in the *Übersicht* (as he ultimately did do). As the genera were not defined or characterised in the "Deutschlands Crustaceen, Myriapoden und Arachniden", where the generic term was merely used for the species concerned as part of the scientific name of the species concerned, the acceptance of these genera as monotypic as from the date of their publication in the above work hardly seems consistent with the author's idea or with customary usage.

I would therefore request the Commission to render an *Opinion* on the validity of Koch's types as appointed by him in the last paragraph to the Foreword of his *Übersicht* published in 1842.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. In a letter dated 1st March 1929 the then Secretary (the late Dr. C. W. Stiles) informed Dr. Jacot that he proposed to invite the International Committee on Entomological Nomenclature to advise on this case. He added that in his view the problem submitted was likely to give rise to a "very close decision between an anatomical norm and a nomenclatorial type".

3. In response to the letter which Dr. Stiles had addressed to him, as Chairman of the foregoing International Committee, Dr. Karl Jordan (*Zoological Museum, Tring, Herts, England*) in a letter dated "Easter 1929" expressed the view that the Committee of which he was the Chairman, having been appointed by the International Congress of Entomology and being concerned only with the names of insects, was not in a position to consider Dr. Jacot's application which related to a book dealing with Crustacea, Myriapoda and Arachnida.

4. No progress had been made with the consideration of this case by the time that in 1938 the papers relating to it and other current cases were transferred to the care of Mr. Francis Hemming who in October 1936 had been elected Secretary to the Commission on the retirement of Dr. Stiles. On receipt, the documents

relating to this case were given the Registered Number Z.N.(S.)90. It had not been found possible to take any action on this application when in September 1939 the records of the Commission were evacuated from London to the country as a precaution against the risk of destruction through air raids. The Secretariat of the Commission in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. When work was resumed on the present case, the Secretary (Mr. Hemming) placed the following note on the file :—

Dr. Jacot's application on Koch's "Deutschlands Crustaceen . . ."

Dr. Jacot raises two points, namely (1) Are the type selections alleged to have been made by Koch in his *Uebersicht des Arachnidensystems* of 1842 for genera previously established by himself in his *Deutschlands Crustaceen*, etc., to be accepted as complying with the requirements of Rule (g) in Article 30? (2) Where the species so "selected" in the *Uebersicht* was not included by Koch when he established the genus in question in the *Deutschlands Crustaceen*, is that selection nevertheless to be accepted? Dr. Jacot argues in favour of the acceptance of the "selections" in the *Uebersicht*, even where the species so selected was not included in the genus in question when it was first established.

It seems to me that it is essential that the two questions raised by Dr. Jacot should be kept entirely distinct, for they raise quite different issues. As regards his Question No. (1), it would seem to me to be reasonable to agree that Koch's action in the *Uebersicht* amounts to a selection under Rule (g) in Article 30. As regards his Question No. 2, it seems to me that the only possible answer is "No". The case is rather like that of the Swainson bird generic names dealt with by the Commission in *Opinion* 30. In that case Swainson certainly did not intend that his action in the *Philosophical Magazine* should be taken as defining the species to be regarded as originally included species for the new genera to which he then assigned the species there described. Nevertheless, it was, in fact, the first place where these generic names were published, and, as the Commission ruled in the foregoing *Opinion*, the species there placed in the new genera are the only originally included species for those genera. In the case dealt with in *Opinion* 30, Swainson placed only one species each of his new genera, and, under the ruling given in that *Opinion*, those species therefore became the type species of the genera concerned, but the principle involved is exactly the same in cases where, as in the case of

Koch, two or more species were cited on the first occasion on which the generic name was used (i.e. in the *Deutschlands Crustaceen*) but those species did not include the species later "selected" as the type species in the *Uebersicht*.

It is implied by Dr. Jacot but not clearly stated that a ruling in the foregoing sense would upset current nomenclatorial practice through the changing of the type species of well-established genera. Such a situation is always possible when workers have been following divergent practices and an authoritative ruling is given declaring one of those practices to be right and the other wrong. In order to minimise the ill effects of such a disturbance, it would, I think, be well if the Commission were to make it clear that it recognises the foregoing possibility and is prepared to deal individually with hard cases under its Plenary Powers on the submission by specialists of evidence of the instability and confusion likely otherwise to arise.

5. Dr. Jacot's application was sent to the printer in September 1944 but, owing to difficulties arising from paper rationing, shortage of labour at the printing works and similar causes it was not until 26th June 1946 that publication actually took place (Jacot, 1946, *Bull. zool. Nomencl.* **1**: 161).

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

6. The present application was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 1730 hours. The following is an extract from the portion of the Official Record of the Proceedings of the International Commission setting out the decision reached by it in regard to this case at the foregoing meeting (Paris Session, 13th Meeting, Conclusion 19) (1950, *Bull. zool. Nomencl.* **4**: 372—375):—

THE COMMISSION agreed:—

- (1) that, in accordance with the principle illustrated by the decision given by the Commission in *Opinion* 30, the

generic names published for the first time by Koch (C.L.) in *Hefte* of the work *Deutschlands Crustaceen, Myriapoden und Arachniden* during the period 1835—1842, when forming new specific names for previously unnamed species are available as from the date of being so published and the type species of such a genus is determined under Rules (b), (c) and (d) in Article 30, where, as the case may be, an originally included species (i) bears the trivial name *typus* or *typicus*, or (ii) is the sole species so included, or (iii) bears a trivial name which is tautonymous with the generic name and in other cases under Rule (g) in that Article ;

- (2) that the reference in the last paragraph of the "Vorwort" to the *Erste Abt eilung* of the third volume (*Drittes Heft*) of the *Übersicht des Arachnidensystems* (published in 1842) to the single species figured in that volume for each genus as "Typus dienend" is to be accepted as constituting a selection of that species to be the type species of that genus under Rule (g) in Article 30 ;
- (3) that, in the case of a genus, the name of which was first published in the *Deutschlands Crustaceen*, the type selection made for that genus by Koch in the *Übersicht* in the manner specified in (2) above is a valid selection only (a) when the genus in question was not monotypical at the time when it was first named and did not contain a species having as a trivial name either the word *typus* or the word *typicus* or a word which was tautonymous with the generic name, and (b) when the species so selected was one of the species referred to the genus in the *Hefte* of the *Deutschlands Crustaceen* in which the generic name was first published or, where two or more *Hefte* were published simultaneously and the generic name appeared in more than one of these *Hefte*, one of the species so referred in any one of these *Hefte* ;
- (4) that if, on applying the foregoing decisions, specialists are of the opinion that the adoption as the type species of any given genus of the species so determined as such would lead to instability and confusion in the nomenclature of the group concerned, it was open to those specialists to submit an application to the Commission

for the use of the Plenary Powers and the Commission, on receiving such an application supported by adequate particulars relating to the name in question and the grounds on which instability and confusion was apprehended, could then judge whether or not the Plenary Powers should be used to vary the type species of the genus in question ;

- (5) to render an *Opinion* recording the decisions specified in (1) to (3) above, reference being made at the same time to the decision recorded in (4) above.

7. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 106).

8. At its meeting held at Copenhagen in August 1953, the Fourteenth International Congress of Zoology decided to insert a provision in the *Règles* establishing an "Official List" to be styled the *Official List of Zoological Works Approved as Available for Zoological Nomenclature* and directing the insertion therein of the title of any work which the International Commission on Zoological Nomenclature might either validate under its Plenary Powers or declare to be an available work, together with any supplementary decisions which the International Commission might take in regard to any aspect of the work in question (1953, *Copenhagen Decisions zool. Nomencl.* : 24). Since the foregoing decision applies to past, as well as to future, decisions by the International Commission in cases of this kind, the opportunity presented by the preparation of the present *Opinion* has been taken to record the insertion in the foregoing *Official List* of the title (a) of Koch's *Deutschlands Crustaceen, Myriapoden und Arachniden*, together with particulars of the decision in regard thereto set out in the present *Opinion*, and (b) of the title of the same author's *Uebersicht des Arachnidensystems*.

9. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners

present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

10. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

11. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression “trivial name”. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression “specific name” was substituted for the expression “trivial name”.

12. 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.

13. The present *Opinion* shall be known as *Opinion* Two Hundred and Four (204) of the International Commission on Zoological Nomenclature.

DONE in London this Eighteenth day of November, Nineteen Hundred and Fifty-Three.

*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

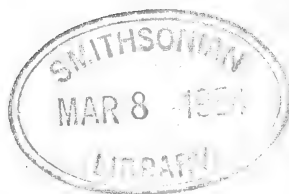
FRANCIS HEMMING, C.M.G., C.B.E.

Secretary to the Commission

VOLUME 3. Part 24. Pp. 309—318

OPINION 205

Rejection of the generic name *Phoranthella* Townsend
(Class Insecta, Order Diptera), as published in 1915,
as a *nomen nudum*



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 205

A. The Officers of the Commission

- President* : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History) Zoological Museum, Tring, Herts, England*).
Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).
Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

- Senor Dr. Angel CABRERA (La Plata, Argentina).
Mr. Francis HEMMING (London, England) (*Secretary to the Commission*).
Dr. Karl JORDAN (British Museum (Natural History), Zoological Museum, Tring, Herts, England) (*President of the Commission*).
Dr. Th. MORTENSEN (Universitetets Zoologisk Museum, Copenhagen, Denmark).
Dr. Joseph PEARSON (Tasmanian Museum, Hobart, Tasmania, Australia).

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Professor J. R. DYMOND (University of Toronto, Canada).
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Dr. Norman R. STOLL (Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.).

C. Alternate Members of the Commission at the Session held in Paris in 1948

- Professor Enrique BELTRÁN (Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico).
Dr. Edward HINDLE (Zoological Society of London, London, England).
Dr. Arturo Ricardo JORGE (Museu Bocage, Lisbon, Portugal).
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Mr. N. D. RILEY (British Museum (Natural History), London, England).
Professor Ragnar SPÄRCK (Universitetets Zoologisk Museum, Copenhagen, Denmark).
Professor Victor van STRAELEN (Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium).
Professor Robert L. USINGER (University of California, Berkeley, California, U.S.A.).

OPINION 205

REJECTION OF THE GENERIC NAME "PHORANTHELLA" TOWNSEND (CLASS INSECTA, ORDER DIPTERA), AS PUBLISHED IN 1915, AS A "NOMEN NUDUM"

RULING :—(1) As published by Townsend in 1915, the specific name *Phoranthella morrisoni* (Class Insecta, Order Diptera) is a *nomen nudum*, and, consequently, as at that date, the generic name *Phoranthella* Townsend, 1915, which depends for its recognition solely upon the status of the name of its type species, is also a *nomen nudum*. (2) The name *Phoranthella* Townsend, 1915, is hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* as Name No. 10. (3) The specific name *morrisoni* Townsend, 1915, as published in the combination *Phoranthella morrisoni*, is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* as Name No. 9.

I.—THE STATEMENT OF THE CASE

On 29th January 1931, the late Dr. J. M. Aldrich (*United States National Museum, Washington, D.C., U.S.A.*) submitted an application to the International Commission on Zoological Nomenclature, in which he asked for a ruling on the question whether the generic name *Phoranthella* Townsend, 1915, and the specific name *Phoranthella morrisoni* Townsend, 1915, had been duly published with "indications" within the meaning of Proviso (a) to Article 25 of the *Règles*. This application which, as explained in paragraph 3 below, was many years later published in the *Bulletin of Zoological Nomenclature*, was as follows :—

ON THE STATUS OF THE GENERIC NAME "PHORANTHELLA" TOWNSEND, 1915 (CLASS INSECTA, ORDER DIPTERA)

By J. M. ALDRICH
(Commission's reference Z.N.(S.)103.)

Townsend, 1915, *Proc. biol. Soc. Wash.* 18 : 23, has this :—

Phoranthella new genus

Genotype, *Phoranthella morrisoni* Townsend new name for *Phorantha (Hyalomyia) occidentis* Coquillet p.p., 1897, Rev. Tach. 44 (nec *Hyalomyia occidentis* Walker, 1856 Diptera Saundersiana, 260)—Holotype labeled by Coqt. as above, loc. Georgia (Morrison). Type No. 19139 U.S.N.M. ♀.

Coquillet's series included specimens from 12 localities, in probably 40 specimens.

Without stating that the whole series was misidentified by Coquillet (note the "p.p."), Townsend has taken out one specimen as misidentified and made it the type of a new species without further description. In other words, there is no description of *morrisoni* either by Townsend or Coquillet.

Question : Does *morrisoni* have any standing ?

Of course, without the "pro parte" this would have been an ordinary case. But with it a new element comes in.

The genus, I think, falls if the species has no standing ; but the status of the species interests me most.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. On 21st May 1932, the then Secretary to the Commission (the late Dr. C. W. Stiles) wrote to Dr. C. H. T. Townsend (*Rio Tapajós, Pará, Brazil*), the author of the names, the availability of which had been questioned by Dr. Aldrich, and asked him to furnish a memorandum stating his "interpretation in the premises". On 11th July 1932, Dr. Townsend replied as follows :—

I consider that Coquillet's description functions for *morrisoni* TT. To fix the species beyond doubt, I designated his Georgia specimen as holotype and gave it a U.S.N.M. type number.

If *morrisoni* TT falls, then many of Coquillet's Revision-of-Tachinidae species fall with it! His descriptions will usually fit more than one species and many of his species were mixed-species.

3. No further progress had been made with the consideration of Dr. Aldrich's application by the time that in 1938 the papers relating to it and other current cases were transferred to the care of Mr. Francis Hemming who in October 1936 had been elected Secretary to the Commission on the retirement of Dr. Stiles. On receipt, the documents relating to this case were given the

Registered Number Z.N.(S.)103. It had not been possible to take any action on this application when in September 1939 the records of the Commission were evacuated from London to the country as a precaution against the risk of destruction through air raids. The Secretariat of the Commission in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly-established *Bulletin*. The present application was sent to the printer in September 1944, but, owing to difficulties arising from paper rationing, shortage of labour at the printing works and similar causes, publication did not actually take place until June 1946 (*Bull. zool. Nomencl.* 1 : 171).

4. The publication of Dr. Aldrich's application elicited the following comment, which was received on 6th January 1948 from Professor L. di Caporiacco (*University of Parma, Italy*):—

Townsend's statement that *Phoranthella morrisoni* Townsend is a new name for *Phorantha (Hyalomyia) occidentis* Coquillet p.p. means only that this "new" species differs in some way from *Phorantha occidentis* Coquillet. Townsend does not, however, say in what way it differs. In my opinion, the name *Phoranthella morrisoni* Townsend is a *nomen nudum*, and the generic name *Phoranthella* falls with the specific name.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

5. The present application was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 17.30 hours. The following is an extract from the portion of the Official Record of the Proceedings of the International Commission setting out (1) the discussion which took place on the present application at the foregoing meeting, and (2) the decision then reached on it

by the Commission (Paris Session, 13th Meeting, Conclusion 26) (1950, *Bull. zool. Nomencl.* 4 : 382—383) :—

- (1) THE COMMISSION had under consideration an application submitted by the late Dr. J. M. Aldrich (U.S.A.) (file Z.N.(S.)103) for a ruling on the question whether (a) a specific name based upon a single specimen of a previously named and described species, and (b) a generic name based upon such a specific name, have any availability under the *Règles*, when no characters are given for the species or genus so named, other than that the type specimen of the species was one of the specimens included in error by a previous author among the type material of another species described by that author (Aldrich, 1946, *Bull. zool. Nomencl.* 1 : 171). Dr. Aldrich had illustrated the problem which he had submitted by citing the case of the nominal species *Phoranthella morrisoni* Townsend, 1915 (Class Insecta, Order Diptera), and the generic name *Phoranthella* then published by Townsend for the first time. The above species was designated by Townsend as the type species of the genus *Phoranthella* and accordingly the generic name *Phoranthella* would be an available name, if the name of the nominal species *Phoranthella morrisoni* Townsend could be regarded as an available name. But the only statement made by its author in regard to this species was that it was based upon one specified example of the type series of another species described by a different author (*Phorantha (Hyalomyia) occidentis* Coquillet, 1897). Dr. Aldrich had observed that Coquillet's series of *occidentis* consisted of some 40 specimens from 12 localities, and that Townsend had taken out only one specimen as misidentified; no description of *Phoranthella morrisoni* had been published by Townsend or Coquillet.

It was pointed out that under the ruling in *Opinion 1* in no case could a museum label or specimen be accepted as an "indication" and therefore that the name *Phoranthella morrisoni* could not be regarded as having been accompanied by an "indication" at the time when it

was first published (1915). As at that date, therefore, the above name was a *nomen nudum*. It followed that, as at 1915, the generic name *Phoranthella* was also a *nomen nudum*, for its identity turned solely upon the status of the nominal species designated as its type species.

(2) THE COMMISSION agreed :—

- (1) that, as published by Townsend in 1915, the specific name *Phoranthella morrisoni* (Class Insecta, Order Diptera), was a *nomen nudum*, and consequently, as at that date, the generic name *Phoranthella* Townsend, 1915, which depended for its recognition solely upon the status of the name of its type species, was also a *nomen nudum* ;
- (2) that the name *Phoranthella* Townsend, 1915, should be added to the *Official Index of Rejected and Invalid Generic Names in Zoology* and that the trivial name *morrisoni* Townsend, 1915 (as published in the binominal combination *Phoranthella morrisoni*), should be added to the *Official Index of Rejected and Invalid Specific Trivial Names in Zoology* ;
- (3) to render an *Opinion* recording the decisions specified in (1) and (2) above.

6. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

morrisoni, *Phoranthella*, Townsend, 1915, *Proc. biol. Soc. Wash.*
18 : 23
Phoranthella Townsend, 1915, *Proc. biol. Soc. Wash.* **18** : 23

7. The decision taken in this case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International

Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 107).

8. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

9. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

10. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

11. 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.

12. The present *Opinion* shall be known as *Opinion Two Hundred and Five (205)* of the International Commission on Zoological Nomenclature.

DONE in London this Nineteenth day of November, Nineteen Hundred and Fifty-Three.

*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 3, Part 25. Pp. 319—338

OPINION 206

Validation, under the Plenary Powers, of the generic
name *Diadema* Gray, 1825 (Class Echinoidea)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 206

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).
Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).
Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

Senor Dr. Angel CABRERA (*La Plata, Argentina*).
Mr. Francis HEMMING (*London, England*) (*Secretary to the Commission*).
Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).
Dr. Th. MORTENSEN (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).
Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

Class 1952

Senhor Dr. Afranio do AMARAL (*S. Paulo, Brazil*).
Professor J. Chester BRADLEY (*Cornell University, Ithaca, N.Y., U.S.A.*).
Professor Lodovico di CAPORIACCO (*University of Parma, Italy*).
Professor J. R. DYMOND (*University of Toronto, Canada*).
Dr. James L. PETERS (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*) (*Vice-President of the Commission*).
Dr. Harold E. VOKES (*United States Geological Survey, Washington, D.C., U.S.A.*).

Class 1955

Professor Dr. Hilbrand BOSCHMA (*Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands*).
Dr. William Thomas CALMAN (*Tayport, Fife, Scotland*).
Professor Teiso ESAKI (*Kyushu University, Fukuoka, Japan*).
Professor Béla HANKÓ (*University of Debrecen, Hungary*).
Dr. Tadeusz JACZEWSKI (*Polish Zoological Museum, Warsaw, Poland*).
Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).
Dr. Edward HINDLE (*Zoological Society of London, London, England*).
Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).
Professor Harold KIRBY (*University of California, Berkeley, California, U.S.A.*).
Dr. Henning LEMCHE (*Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark*).
Professor Kamel MANSOUR (*King Fouad University, Cairo, Egypt*).
Professor Z. P. METCALF (*North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.*).
Mr. N. D. RILEY (*British Museum (Natural History), London, England*).
Professor Ragnar SPÄRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).
Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).
Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 206

VALIDATION, UNDER THE PLENARY POWERS, OF THE GENERIC NAME "DIADEMA" GRAY, 1825 (CLASS ECHINOIDEA)

RULING :—(1) Under the Plenary Powers (a) the generic names *Diadema* Schumacher, 1817, and *Diadema* Ranzani, 1817 (Class Crustacea, Sub-Class Cirripedia) are suppressed for the purposes both of the Law of Priority and of the Law of Homonymy, and (b) the generic name *Diadema* Gray, 1825 (Class Echinoidea) is validated with *Echinometra setosa* Leske, 1778, as type species. (2) The generic name *Diadema* Gray, 1825 (gender of name : neuter) with type species as designated in (1) (b) above, is hereby placed on the *Official List of Generic Names in Zoology* as Name No. 633. (3) The generic names *Diadema* Schumacher, 1817, and *Diadema* Ranzani, 1817, as suppressed under the Plenary Powers under (1) (a) above, are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* as Names Nos. 11 and 12. (4) The specific name *setosa* Leske, 1778, as published in the combination *Echinometra setosa*, is hereby placed on the *Official List of Specific Names in Zoology* as Name No. 9.

I.—THE STATEMENT OF THE CASE

Under cover of a letter dated 17th November 1932, the late Dr. Th. Mortensen (*Universitetets Zoologisk Museum, Copenhagen*) submitted, for the consideration of the International Commission on Zoological Nomenclature, a paper of his which had just been published (October 1932, *Ann. Mag. nat. Hist.* (10) **10** : 345—368) under the title "A Vote on some Echinoderm Names". This paper contained a discussion of eight disputed Echinoderm names and gave the result of an extensive canvas of opinion among Echinoderm specialists as to the action which it was desirable should be taken. The seventh of the names discussed in this paper was the name *Diadema*.

2. The recommendation submitted in regard to this case was that the name *Diadema* Gray, 1825, should be declared a *nomen conservandum* with *Echinometra setosa* Leske, 1778, as type species (: 363). This proposal was supported by thirty-three specialists and was opposed by six. The specialists who supported this proposal were:—(1) F. A. Bather (*British Museum (Natural History), London*); (2) A. G. Brighton (*Sedgwick Museum, Cambridge*); (3) Austin H. Clark (*United States National Museum, Washington, D.C.*); (4) J. Cottreau (*Muséum National d'Histoire Naturelle, Paris*); (5) E. D. Currie (*Hunterian Museum, Glasgow*); (6) A. M. Diakonov (*Zoological Museum, Leningrad*); (7) L. Döderlein (*Munich*); (8) Sv. Ekman (*Zoological Institute, Uppsala*); (9) A. Faas (*Geological Committee, Leningrad*); (10) D. M. Fedotov (*Zoological Laboratory, Leningrad*); (11) T. Gislén (*Zoological Institute, Uppsala*); (12) Seitaro Goto (*Tokio*); (13) J. W. Gregory (*Geological Department, University, Glasgow*); (14) J. A. Grieg (*Zoological Museum, Bergen*); (15) R. Hecker (*Geological Museum, Leningrad*); (16) S. Heding (*Zoological Museum, Copenhagen*); (17) Hérouard (*Laboratoire de Zoologie, La Sorbonne, Paris*); (18) N. von Hofsten (*Zoological Institute, Uppsala*); (19) F. Klinghardt (*Museum f. Naturkunde, Berlin*); (20) L. Lieberkind (*Zoological Museum, Copenhagen*); (21) Th. Mortensen (*Zoological Museum, Copenhagen*); (22) Aug. Nobre (*Zoological Institute, Porto, Portugal*); (23) H. Ohshima (*Zoological Laboratory, Fukuoka, Japan*); (24) A. Panning (*Zoological Museum, Hamburg*); (25) L. P. J. Ravn (*Palaeontological Department, University, Copenhagen*); (26) A. Reichen-sperger (*Zoological Institute, Bonn*); (27) W. E. Schmidt (*Preussische Geolog. Landesanstalt, Berlin*); (28) W. K. Spencer (*Ipswich, England*); (29) G. Stefanini (*Geological Institute, Pisa*); (30) Dom Aurélien Valette (*Saint-Léger-Vauban, France*); (31) C. Vaney (*Laboratoire de Zoologie, Lyon*); (32) J. Wanner (*Geological Institute, Bonn*); (33) N. Yakovlev (*Geological Committee, Leningrad*). The six specialists who were opposed to the action recommended in the present case were:—(1) H. L. Clark (*Museum of Comparative Zoology, Cambridge, Mass.*); (2) R. T. Jackson (*Museum of Comp. Zoology, Cambridge, Mass.*); (3) E. Deichmann (*Museum of Comp. Zoology, Cambridge, Mass.*); (4) W. K. Fisher (*Hopkins Marine Station, Pacific Grove, California*); (5) H. L. Hawkins (*Geological Department, University, Reading*); (6) J. Lambert (*Paris*).

II.—THE SUBSEQUENT HISTORY OF THE CASE

3. In December 1932 the then Secretary (the late Dr. C. W. Stiles) reported Dr. Mortensen's application to the Commission in Circular Letter 220. On 20th December of that year, he wrote also to the Director of the United States Geological Survey, expressing the hope that arrangements might be made for these proposals to be examined by the palaeontologists of the Survey. On 19th January 1933 the Director replied, forwarding five comments by members of the staff, of which one was signed by two workers. These comments, so far as they relate to the present case, were as follows :—

(a) *Comment by L. W. Stephenson and C. Wythe Cooke :*

I am in favor of codifying names concerning the strict validity of which there may be some question, if they have been in generally accepted use for long periods, but when it can be shown clearly that some other name has priority over a later more generally used name . . . is there not a danger of adding to, rather than subtracting from, the confusion? Will not some authors accept the rulings of the International Commission, while others will continue stoutly to maintain the validity of the names having priority? Furthermore, will not such rulings encourage a flood of demands for suspension of the rules?

(b) *Comment by Lloyd G. Henbest :*

Dr. Mortensen's petition to conserve and restore certain Echinoderm names seems to be reasonable except in the cases of *Diadema* . . .

The effort to restore the name *Diadema* involves an issue which is larger than that of the two generic names; to wit, the arbitrary perpetuation of a confused and invalid name merely for the sake of convenience *versus* the principles of priority rights of the reviser and also the value of clarifying our system of nomenclature through individual effort that is directed along lines of well-established and plainly legal procedure. It seems to me that the perspicacity of a reviser is more worthy of honor than the indolence or ignorance of his predecessors.

A related issue is also involved. As presented, the solution of the problem of *Diadema* is not only clear and self evident, but it has also been effected by a procedure which is in complete accordance with the International Code. If this is true, I believe that the International Commission has no cause for action unless it act to uphold the valid name *Centrechinus*.

(c) *Comment (dated 6th January 1933) by John B. Reeside Jr. :*

I see no particular objection to placing all of the names on the *List of established names*.

(d) *Comment by Edwin Kirke :*

I concur, except in the case of *Diadema*. Here I think that *Centrechinus* is valid.

(e) *Comment (dated 16th January 1933) by W. P. Woodring :*

I am not familiar with the usage of these Echinoderm names, but as a general principle—other things being equal—I am in favor of special protection for names of long-standing usage that are being threatened.

4. In December 1933 Dr. Stiles reported to the Commission (in Circular Letter 245) the comments received earlier that year from the palaeontologists of the Geological Survey. In March 1935 Dr. Stiles reported to the Commission (in Circular Letter 291) that he had received no further comments on this or the other proposals submitted by Dr. Mortensen and his colleagues, and suggested that those proposals should be considered by the Commission when it met at Lisbon in September of that year.

5. When the International Commission assembled at Lisbon in 1935, it found itself handicapped in dealing with these proposals through the absence of the Secretary through ill-health and the fact that the documents relating to the name *Diadema* and the associated cases were not available. At the Fourth Meeting of that Session held in the Library of the Faculty of Sciences on Tuesday, 17th September 1935 at 0930 hours, the International Commission did, however, give preliminary consideration to the case of *Diadema*. The case in favour of the application was presented personally by Dr. Mortensen who was present as an Alternate Commissioner. In the discussion which ensued, Commissioner Francis Hemming pointed out that the proposal that the name *Diadema* should be validated as from Gray, 1825, involved difficulties which, so far as he was aware, had not been adequately examined, for the name *Diadema* of Gray, 1825, was a junior homonym of *Diadema* Schumacher and *Diadema* Ranzani, both names published in 1817 for genera of the Sub-Class Cirrropedia (Class Crustacea), while the oldest use of the name *Diadema* for the well-known Echinoid genus—namely *Diadema* Humphrey, 1797—was not available, the Commission having, in *Opinion* 51, pronounced against the acceptance of the work entitled *Museum Calonnianum*, in which it had been published.

Mr. Hemming added that, while, in view of the massive support given to the proposal submitted in this case, he was, in principle, in favour of its acceptance, he considered that it needed further consideration in its technical aspects. This view was shared by the International Commission. The following is an extract from the Official Record of its Proceedings setting out the decision then reached (Lisbon Session, 4th Meeting, Conclusion 1) (1943, *Bull. zool. Nomencl.* **1** : 32—33) :—

THE COMMISSION agreed :—

- (a) to postpone for further consideration the case of the name *Diadema* Gray, 1825 (Echinodermata) ;
- (b) to invite Dr. Mortensen and Commissioner Hemming to confer together with a view to the submission to the Commission of all the data required to enable a decision to be reached.

6. Throughout the first half of 1936 extensive consultations took place by correspondence between Dr. Mortensen and Mr. Hemming on the problem referred to them by the Commission at its Lisbon Session, these consultations culminating in a meeting held in London on 22nd July 1936. Two problems were examined : first, the question whether the name *Diadema*, as applied in 1817 to a genus of Cirripedia, was still in use by specialists in the Crustacea ; second, if the name *Diadema* was to be preserved by the Commission for the Echinoid genus, should this be done (1) by validating *Diadema* Humphrey, 1797, or (2) by suppressing the Cirripede names *Diadema* Schumacher, 1817, and *Diadema* Ranzani, 1817? The difficulty envisaged in the first of these questions entirely disappeared when it was ascertained that the name *Diadema*, as applied to a genus of Cirripedia by Schumacher and Ranzani, was a dead synonym in the literature, being objectively identical with *Coronula* Bruguière, 1792. Later, Professor

Hj. Broch (*Oslo*), the eminent authority on the Cirripedia, informed Dr. Mortensen that the name *Coronula* was so generally known that, even if *Diadema* Schumacher had priority over it, it would only lead to confusion to change it. The first of the two questions having been disposed of in this manner, Dr. Mortensen and Mr. Hemming turned to consider the remaining problem. On this question, they took the view that, on balance, the most satisfactory course would be to date *Diadema* for the Echinoid genus from Humphrey, 1797, though this would involve the withdrawal, in this instance, of the Commission's condemnation of the work entitled *Museum Calonnianum*. It was accordingly decided that the revised application by Dr. Mortensen should be framed on this basis. An examination by Dr. Mortensen of Humphrey's remarks about *Diadema* led him to maintain his earlier proposal that the International Commission should be asked to designate *Echinometra setosa* Leske, 1778, as the type species of *Diadema*.

7. Dr. Mortensen's revised proposal was submitted to the Commission in April 1937. It was as follows:—

**Proposed suspension of the "Règles" for the generic name
"Diadema" Humphrey, 1797 (Class
Echinoidea, Order Aulodonta)**

By TH. MORTENSEN

(*Universitets Zoologiske Museum, København*)

In "A Vote on some Echinoderm Names" (1932, *Ann. Mag. nat. Hist.* (10)10 : 360—365) I gave a full account of the history of this name, *Diadema*, from its first appearance in literature in 1711 until 1912, when after having been in constant and unanimous use in the whole echinological literature, zoological and palaeontological, it was rejected by Jackson as being a synonym of the Cirripedian *Coronula* Schumacher, 1817, and substituted by the name *Centrechinus*. With the exception of Jackson, H. L. Clark, Deichmann, Fisher, and Hawkins, all Echinologists sided with me in recommending that the name *Diadema* (Order Aulodonta, Suborder Diademina) should be made a *nomen conservandum* for the Echinoids, with genotype *Echinometra setosa* Leske, the species that has always been regarded as such.

When at the International Zoological Congress in Lisbon, 1935, I brought the case of the name *Diadema* before the Commission on Nomenclature, Mr. Francis Hemming advised to have it adjourned

until the use of this name in the *Museum Calonnianum*, 1797, had been made the object of a careful investigation. During a visit to London in July 1936 I had the opportunity of undertaking such investigation, the result of which I publish here.

In the said "Vote on some Echinoderm Names" I stated (: 361) as follows:—"In the anonymous *Museum Calonnianum*, 1797 (: 64), the name *Diadema* is used as a genus-name for Echinoids, but it is not possible to see which species should be regarded as the type of this genus". It was on the authority of Jackson ("Phylogeny of the Echini" : 27)* that I gave this statement (I had at that time never seen the *Museum Calonnianum*), but the statement is not correct, as the following analysis will show.

The *Museum Calonnianum* (whose author has been shown to be the London naturalist-dealer G. Humphrey) has under the "Class II. Echinus. Oursin de Mer—Sea Urchin" the following five genera : *Placenta*, *Scutum*, *Cor*, *Diadema* and *Cidaris*. Although it is quite possible to identify several of the species enumerated under these genera, there is no reason for entering on a discussion of all of them. It is only the genus *Diadema* that has any interest and needs a detailed discussion.

Under the genus *Diadema* Turban, the following species are enumerated :—

1183. *vulgatum*. (a) with the spines on. L'Ordinaire—Common. Normandy.

This no doubt must be the common N. Atlantic species *Psammechinus milaris* (Müll.).

1184. *orbiculatum*. L'Orbiculaire—Orbicular. Normandy. *Echinus esculentus* Linn.

This is clear enough. It is curious that Humphrey gives new names to several species which he identifies with Linnean species—e.g., *Echinus orbicularis*, *Echinus rosaceus*.

1185. *depressum*. Le Plat—Flatted. West Indies.

This species cannot be identified.

1186. (misprint 1116). *virescens*. Les Epines Vertes—Greenspined. Newfoundland. Has the spines on.

This can clearly only be *Strongylocentrotus droebachiensis*. (O.Fr. Müller.)

* Jackson says here : "There are 12 species listed under *Diadema*, but of these only one is recognisable, as it is stated to be the same as *Echinus esculentus* Linné. On this evidence, if this work should be accepted, which is very doubtful, the genus *Diadema* would become a synonym of *Echinus*, as *esculentus* is the type of that genus." The fact that several of the species, not only the first one, are recognisable does away with this argument for regarding *Diadema* as a synonym of *Echinus*.

1187. *aciculatum*. Les Epines Pourpres—(dark) Purple, (long) Needle-spined. Mediterranean. Has the spines on. (The words “dark” and “long” are handwritten additions in the copy of the British Museum.)
This can clearly only be *Paracentrotus lividus* (Lamarck.).
1188. *ovatum*. (a) Native colour, with the teeth and some of the spines; (b) bleached; (c) opened to show the internal structure. L’Oeuf—Egg. West Indies.
This may probably be *Tripneustes esculentus* (Leske).
1189. *rotundum*. Le Circulaire—Circular. East Indies.
Unidentifiable.
1190. *limatum*. Les Epines en forme de Lime—Blunt file-like, spined. West Indies.
This can very well be *Diadema antillarum* Philippi (1845, *Archiv f. Naturgesch.* 1 : 355), as shown by the description of the spines.
1191. *subulatum*. Les Epines en forme d’Alêne—Awl-like, spined. West Indies.
This may perhaps be *Lytechinus variegatus* (Lamarck).
1192. *maculatum*. Les Epines Tachétées—Spotted red-spined. Mediterranean. Rare.
This must evidently be *Sphaerechinus granularis* (Lamarck).
1193. *striatum*. Les Epines Longues Striées—Long striated spined. Mediterranean. Rare. This has several of *Serpula lumbricalis*, species 15, entwined round its spines.
This must be one of the Mediterranean Cidarids, either *Cidaris cidaris* (Linn.) or *Stylocidaris affinis* (Philippi).
1194. *sceptiferum*. Les Epines au Sceptre Couronné—Coronated sceptre-spined. Tranquebar. M.P.3051. Extremely scarce. M.P. is *Museum Portlandianum*, 3051 : “The coronated sceptre-spined *Echinus*, extremely scarce, from the E. Indies, Favanne, pl. 80. fig. L, the only specimen of its kind in England”.
De Favanne. Conchyliologie, 1780, pl. 80. fig. L, is evidently *Plococidaris verticillata* (Lamarck).

Thus, among the identifiable species under Humphrey’s *Diadema* is one species, *limatum*, which may very well be the species always understood as *Diadema*, the *Diadema antillarum* Philippi, and since all the other identifiable species belong to long-established genera, Humphrey’s *Diadema limatum* would be the only suitable species to select as the genotype of *Diadema*.

The Echinoid genus name *Diadema* thus originates from Humphrey, 1797, not from Gray, 1825 ("An Attempt to divide the Echinida, or Sea Eggs, into Natural Families", *Annals of Philosophy* 26), as is usually stated, and very probably Gray did not mean to establish *Diadema* as a new genus of Echinoids. It can hardly be doubted that he knew the *Museum Calonnianum*, and that he took the name from there. In general, he adds the name of the author to his genera, and at the genera *Echinanthus* and *Echinolampas* he adds "nob.", thus directly indicating that here are new genera established by him. That he does not add any author's name to *Diadema* is quite natural, since *Museum Calonnianum*, from where he probably took it, is anonymous. Unfortunately this argument is not conclusive, since he does not add any "nob." either at *Astropyga*, which—so far as known—has not been used before 1825. But in any case, Gray is not the first to use the name *Diadema* for an Echinoid. The name dates from 1797 and thus has the absolute priority in the use for the Echinoids—even if we do not count Schynvoet's name from 1711 or Lamarck's use of the not latinised form "les Diadèmes" in 1816—and the name accordingly was preoccupied already when Schumacher in 1817 and Ranzani in 1820 used it for the Cirripedian *Lepas diadema* Linnaeus, for which Oken had, in 1815, established the genus *Coronula*. Schumacher's and Ranzani's *Diadema* is, of course, only a dead synonym of *Coronula* Oken*, but the Echinoid name *Diadema* Humphrey remains unaffected thereby.

Thus far there would seem to be no doubt of the validity of the name *Diadema*, as an Echinoid genus name. But, again, there is a complication.

The International Commission on Zoological Nomenclature has had a discussion about the *Museum Calonnianum*, resulting in the *Opinion* 51, which says: "The *Museum Calonnianum*, 1797, is not to be accepted as basis for any nomenclatorial work". The object of this *Opinion* was, of course, to prevent undesirable nomenclatorial changes based on this very little known work. If the Commissioners had known the case of the name *Diadema*, in which the *Museum Calonnianum* serves to prevent the extremely undesirable change of that name, they would hardly have given the *Opinion* 51 the quoted wording, the more so since the *Opinion* 51 was not accepted unanimously by the Commissioners. But this wording necessitates separate action in this case for declaring the Echinoid name *Diadema* a *nomen conservandum*.

A few words must be said about the question: which species of sea-urchin is to be the genotype of *Diadema*? If it were not already

* The eminent authority on Cirripedians, Professor Hj. Broch, Oslo, writes me that even if Schumacher's *Diadema* had priority before the name *Coronula*, the latter is so generally known that it could only bring confusion to change it. "I think it out of question that the name *Diadema* could, on the whole, be taken into consideration as a genus name of a Cirripedian. It is a 'dead synonym' of *Coronula*."

fixed, Humphrey's species *limatum* would have to be selected as the genotype, since it may be identical with the species now unanimously named *Diadema antillarum* Philippi. But Gray, *op. cit.*, already fixed the species "*Echinometra setosa*" of Leske as the genotype. In doing so he actually was in conformity with the opinion of the present author that the only species in the *Museum Calonnianum* that could be made the genotype of *Diadema* is *limatum* possibly=*Diadema antillarum* Philippi, this latter being at that time (as a matter of fact up till 1904) regarded as identical with the Indo-Malayan "*Echinometra setosa*" of Leske, the name *limatum* thus being apparently synonymous with the older name *setosum*.

Having regard to the foregoing considerations, to the universal use of the name *Diadema* for the Echinoids since Gray's time (up till 1912), and to the very unfortunate consequences (cf. "Vote on some Echinoderm names", 1932, *Ann. Mag. nat. Hist.* **10** (10) : 360—362) of dropping this name—not because any other animal has a legitimate claim to it, but, formerly, because it was erroneously thought to be merely a dead synonym of the Cirripedian *Coronula*, now, because *Opinion 51* forbids the use of a name from the *Museum Calonnianum*—I recommend that the International Commission on Zoological Nomenclature, acting in virtue of the Plenary Powers conferred upon them by the International Zoological Congress, should issue an *Opinion* in the following sense :—

Nothing in *Opinion 51* shall be held to invalidate the use of the generic name *Diadema* Humphrey (1797, *Mus. Calonn.* : 64) in Echinoids (genotype, as fixed by Gray, 1825, *Echinometra setosa* Leske, 1778), and that generic name is hereby added to the *Official List of Generic Names in Zoology*.

P.S.—The manuscript of this note I submitted to Professor H. L. Clark, asking for his opinion about it. He informs me that in his opinion the description of the spines of *Diadema limatum* rather suggests the West Indian Cidarid *Eucidaris tribuloides* (Lamarck) than *Diadema antillarum*. It had not occurred to me that the "file-like" spines could fit in with any other West Indian Echinoid than *Diadema antillarum*; but I have to agree that the spines of this Cidarid may, if well preserved, very well be described as "file-like", and, if special weight is given to the word "blunt", it is more likely that the *Diadema limatum* of Humphrey was *Eucidaris tribuloides*, the spines of *Diadema antillarum*, if well preserved, being certainly not to be described as "blunt". But if the spines are broken, as they would be sure to be in such an old specimen (these spines are exceedingly brittle and can only be kept tolerably intact on specimens treated very carefully, which, of course, they never were in olden days), they may very well be designated as blunt—as are actually the spines of the oral side, even when intact—and they are very decidedly and conspicuously *file-like*.

Accordingly the *Diadema limatum* of Humphrey may have been either *Eucidaris tribuloides* or *Diadema antillarum*.

Anyhow, it is unquestionable that the name *Diadema* was first used as a genus of Echinoids, including several recognisable species, one of which may very well be identical with *Diadema antillarum* Philippi, closely related with the species that Gray selected as the genotype of *Diadema*. And since this name has been in unanimous use in the whole of the zoological and palaeontological literature from 1825 till 1912, and particularly in that literature which must for ever remain the basis of echinological science—and has been used also in 1925 in a main work like H. L. Clark's "Catalogue of the Recent Sea-Urchins of the British Museum", and is used particularly in vol. 3 of my Monograph of the Echinoidea—it will be impossible ever to get rid of the name *Diadema* in the Echinoids. On the other hand, there is nothing to be said in favour of the name *Centrechinus*, used only after 1912, and not in a single work of primary importance; it will rapidly share the fate of the immense number of other useless synonyms. I may well recall also the numerous (more than 25) valid names of recent and fossil Echinoids composed of *Diadema* (cf. "Vote on some Echinoderm names": 362), and the general use of the technical term "diadematoïd". I can only find it an absurdity to drop the name *Diadema* and must emphatically recommend to have it placed on the official list of generic names as a *nomen conservandum*.

8. This case which, on the reorganisation of the Secretariat, had been given the Registered Number Z.N.(S.)52, was considered further at the Plenary Conference between the President (Dr. Karl Jordan) and the Secretary to the Commission (Mr. Francis Hemming, who had been elected to that office in 1936 on the retirement of Dr. Stiles) held in London on Monday, 19th June 1939. The view then taken was that, although Dr. Mortensen's application in its revised form did not involve the use by the International Commission of its Plenary Powers, it was desirable that the Commission should be in a position to act under those Powers in this case, if on examination of this application, that were to appear to it to be the best course to follow. To this end, the Plenary Conference decided that notices of the possible use of the Plenary Powers in this case should at once be issued under the procedure prescribed by the Ninth International Congress of Zoology, Monaco, 1913 (Plenary Conference, Conclusion 17) (1943, *Bull. zool. Nomencl.* 1 : 85). The prescribed notice agreed upon by the Plenary Conference was duly issued on 27th June 1939.

9. The outbreak of war in Europe in September 1939 led to the evacuation of the records of the International Commission from

London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. The present application was sent to the printer in October 1944, but, owing to paper rationing, shortage of labour at the printing works and similar causes, publication did not actually take place until June 1946 (*Bull. zool. Nomencl.* 1 : 172—175).

10. In the meantime two comments had been received as the result of the notice which had been issued just before the outbreak of war regarding the possible use by the International Commission of its Plenary Powers in this case. Of these the first was from Dr. Hubert Lyman Clark (*Museum of Comparative Zoology at Harvard College, Cambridge, Massachusetts, U.S.A.*) and was dated 8th November 1944 (being a formalisation of a brief notification in the same sense which Dr. Clark had addressed to the Commission on 8th November 1939). The second comment, which was dated 13th November 1944, was furnished by Dr. Austin H. Clark (*Curator of the Division of Echinoderms, United States National Museum, Washington, D.C., U.S.A.*). Both these specialists had participated in the comprehensive consultation (paragraph 2 above) organised by Dr. Mortensen before the submission of his original application, and each in 1944 maintained the positions previously taken up, Dr. Hubert Lyman Clark remaining opposed to the application, Dr. Austin H. Clark continuing to give it his support. These supplementary statements are given in the two immediately following paragraphs.

11. The statement furnished by Dr. Hubert Lyman Clark in 1944 is as follows :—

Centrechinus vs. Diadema

The proposal to validate *Diadema* is unworthy of serious consideration since it is based purely on emotion—the preference for a familiar name to one that is less familiar. Every effort to stabilise nomenclature which involves the giving up of a name with which some zoologist is familiar meets this objection and since it is almost purely emotional,

it ought not to receive the consideration often given to it. Dr. Mortensen's great ability, his high standing as a zoologist, and his earnestness in this relatively unimportant matter have given undue prominence to the case of *Diadema*. It is true that *Diadema* was a universally used name for the genus of tropical sea-urchins with long, black poisonous spines, prior to 1912. It is further true that family and ordinal names were based on it, and some generic names in other families of Echini have "*diadema*" as an element in their composition. But there is so little occasion for reference to these sea-urchins in technical literature of other branches of science that it is doubtful if such reference can be found. Moreover, while the name is used in Lang's Comparative Anatomy and some other widely known works, it does not occur in Parker and Haswell's Textbook of Zoology or in most other smaller text-books in general use.

The above statements regarding the use of the name have little bearing however on the question of its special validation by fiat by the International Commission. It was not until 1912 that attention was called to the impropriety of using *Diadema* for a sea-urchin. In that year, Dr. R. T. Jackson in his great monograph "*Phylogeny of the Echini*" (*Mem. Boston Soc. Nat. Hist.*, vol. 7, p. 27) pointed out the error in using the name thus, and proposed the euphonious and satisfactory name *Centrechinus* to replace it. This name has been accepted by nearly all English-using workers on echinoderms during the past thirty years but has been violently opposed by Mortensen merely because *Diadema* is so much more "familiar". But it is familiar only to specialists in the group of Echinoderms and to many of us *Centrechinus* is just as familiar now. The validating of such an incorrect name as *Diadema* could only be justified if it were a name widely used for a single genus in general text-books or popular literature. As shown by both English and German Zoological "Nomenclators", *Diadema* has been used as a generic name in the groups Aves, Crustacea, Lepidoptera, and Mollusks, as well as Echini. It is only by an arbitrary favouritism that it can be restricted to Echini.

12. The statement furnished by Dr. Austin H. Clark in 1944 is as follows:—

The generic name *Diadema* Gray, 1825, was accepted by all students of echinoderms until 1912, when *Centrechinus* was proposed as a substitute by Jackson on the ground that *Diadema* Gray, 1825, was preoccupied by *Diadema* Schumacher, 1817.

Diadema Schumacher, 1817, never came into general use, being recognised as a synonym of *Coronula* Bruguière, 1792.

Diadema Gray, 1825, not only appears in a great number of technical contributions, but also has been widely used in text books and more or less popular treatises.

The name *Centrechinus* Jackson, 1912, has not as yet received general recognition even among students of the Echinoidea.

Therefore as matters stand at present, the retention of the name *Diadema* Gray, 1825, under a suspension of the rules is desirable, as otherwise much confusion will result.

Since the earlier *Diadema* Schumacher, 1817, has never been used, being very early recognised as a synonym of *Coronula*, there is no possibility of confusion between this and *Diadema* Gray, 1825.

May I venture to remark that—a fact well known to all administrators—too rigid interpretation of many categories of law tends to create a sentiment against them.

13. On 18th July 1946 Professor H. Engel (*Zoologisch Museum, Amsterdam, The Netherlands*) submitted the following statement of his views :—

Giving my opinion on Dr. Mortensen's application on the Echinoid name *Diadema* (Z.N.(S.) 52)—in *Bull. zool. Nomencl.* **1**(8), p. 172 *seq.*—I think that the best thing would be to act in accordance with Dr. Mortensen's advice and to add the name *Diadema* to the *Official List*, for it would be nonsense to use such a well known name for a Cirripede, in which group it is obviously not welcome at all. What arguments are used is of little importance. I think that Dr. Mortensen has found an ingenious and elegant solution which I hope may prove to be acceptable.

14. In July 1947 Mr. F. Hemming paid a visit to Copenhagen, and took the opportunity to discuss with Dr. Mortensen the procedure best to be adopted in regard to the block of applications on Echinoderm names which he had submitted, when those applications came to be considered by the International Commission in Paris in the following year. Dr. Mortensen and Mr. Hemming agreed in the case of the name *Diadema*, to amend the proposal published in the *Bulletin* in 1946 by substituting for it a proposal that the name *Diadema* Schumacher, 1817, and the name *Diadema* Ranzani, 1817 (if that name was, in fact, distinct from that published by Schumacher) should be suppressed by the Commission under its Plenary Powers and that the name *Diadema* should be validated in the Class Echinoidea as from Gray, 1825, the author and date commonly attributed to this name, the type species of the genus, as previously proposed, to be designated as *Echinometra setosa* Leske, 1778.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

15. The case of the name *Diadema* was considered by the International Commission on Zoological Nomenclature at the Thirteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 1730 hours. By this date, Dr. Mortensen was himself a Member of the Commission, but on the advice of his medical attendants, he had much to his regret felt bound at the last moment to cancel the arrangements which he had made to visit Paris for the purpose of attending the meetings of the International Commission (1950, *Bull. zool. Nomencl.* 4 : 2). In the greatly regretted absence of Dr. Mortensen, the case of the name *Diadema* was presented on his behalf by Mr. Francis Hemming, the proposal actually submitted being in the revised sense agreed upon between Dr. Mortensen and himself at their meeting in Copenhagen in 1947 (paragraph 14). The following is an extract from the portion of the Official Record of the Proceedings of the International Commission setting out the decision reached by it in regard to this case at the meeting referred to above (Paris Session, 13th Meeting, Conclusion 27) (1950, *Bull. zool. Nomencl.* 4 : 383—385) :—

THE COMMISSION agreed :—

- (1) to use their Plenary Powers :—
 - (a) to suppress the names *Diadema* Schumacher, 1817, and *Diadema* Ranzani, 1817 (Class Crustacea, Sub-Class Cirripedia) ;
 - (b) to validate the name *Diadema* Gray, 1825 (Class Echinoidea) with *Echinometra setosa* Leske, 1778, as type species ;
- (2) to place the generic name *Diadema* Gray, 1825, validated as above and with the above species as its type species, on the *Official List of Generic Names in Zoology* ;

- (3) to place the generic names *Diadema* Schumacher, 1817, and *Diadema* Ranzani, 1817, on the *Official Index of Rejected and Invalid Generic Names in Zoology* ;
- (4) to place the trivial name *setosa* Leske, 1778 (as originally published in the binominal combination *Echinometra setosa*) on the *Official List of Specific Trivial Names in Zoology* ;
- (5) to render an *Opinion* recording the decisions specified in (1) to (4) above.

16. The following are the original references to the names which appear in the decision set out in the immediately preceding paragraph :—

Diadema Schumacher, 1817, *Essai nouv. Syst. Habitations Vers test.* : 34, 90

Diadema Ranzani, 1817, *Opusc. Sci.*, Bologna 1 : 276

Diadema Gray (J.E.), 1825, *Ann. Phil.* 26 : 426

setosa Echinometra, Leske, 1778, *J. T. Klein Nat. Dispositio Echinodermat. Addit.* : 35, pl. 37, figs. 1—12 ; pl. 47, figs. 1—2

17. The gender of the generic name *Diadema* Gray, 1825, referred to in the decision quoted in paragraph 15 above, is neuter.

18. The decision taken in this case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Fifth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 107).

19. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

20. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

21. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

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

23. The present *Opinion* shall be known as *Opinion* Two Hundred and Six (206) of the International Commission on Zoological Nomenclature.

DONE in London this Twentieth day of November, Nineteen Hundred and Fifty-Three.

*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 3. Part 26. Pp. 339—352

OPINION 207

Designation, under the Plenary Powers, of type species
in harmony with accustomed use for the genera
Echinocyamus van Phelsum, 1774, and *Fibularia*
Lamarck, 1816 (Class Echinoidea)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 207

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President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

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Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

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Dr. Edward HINDLE (*Zoological Society of London, London, England*).

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Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 207

DESIGNATION, UNDER THE PLENARY POWERS, OF TYPE SPECIES IN HARMONY WITH ACCUSTOMED USE FOR THE GENERA "ECHINOCYAMUS" VAN PHELSUM, 1774, AND "FIBULARIA" LAMARCK, 1816 (CLASS ECHINOIDEA)

RULING :—(1) Under the Plenary Powers, (a) the generic names *Echinocyamus* van Phelsum, 1774, and *Fibularia* Lamarck, 1816 (Class Echinoidea) are hereby validated, (b) all type selections for the foregoing nominal genera made prior to the present Ruling are hereby set aside, and (c) *Spatagus pusillus* Müller (O.F.), 1776, is hereby designated as the type species of *Echinocyamus* van Phelsum, 1774, and *Fibularia ovulum* Lamarck, 1816, as the type species of *Fibularia* Lamarck, 1816. (2) The generic names *Echinocyamus* van Phelsum, 1774 (gender of name : masculine), and *Fibularia* Lamarck, 1816 (gender of name : feminine), as validated under (1)(a) above and with the type species designated in (1)(c) above, are hereby placed on the *Official List of Generic Names in Zoology* as Names Nos. 634 and 635. (3) The specific names *pusillus* Müller (O.F.), 1776, as published in the combination *Spatagus pusillus*, and *ovulum* Lamarck, 1816, as published in the combination *Fibularia ovulum*, are hereby placed on the *Official List of Specific Names in Zoology* as Names Nos. 10 and 11.

I.—THE STATEMENT OF THE CASE

The present is the fourth of the eight cases relating to disputed Echinoderm names submitted to the International Commission

on Zoological Nomenclature by the late Dr. Th. Mortensen (*Universitetets Zoologisk Museum, Copenhagen*) under cover of a letter dated 17th November 1932. The arguments in regard to these cases were set out in a paper by Dr. Mortensen entitled "A Vote on some Echinoderm Names", which had been published a month earlier (Mortensen, October 1932, *Ann. Mag. nat. Hist.* (10) **10** : 345—368). This application was concerned with the names *Echinocyamus* van Phelsum, 1774, and *Fibularia* Lamarck, 1816 (Class Echinoidea). Dr. Mortensen explained that up to 1891 there had been complete agreement as to the application of the names of these allied Clypestroid genera, the name *Echinocyamus* van Phelsum having been applied to species of the low type with internal radiating walls, and, since the publication in 1846 of Agassiz and Desor's *Catalogue raisonné des Echinides*, *Fibularia* Lamarck to species of the high type without internal radiating walls. In 1891, however, Lambert (*Bull. Soc. géol. France* (3) **19** : 749) put forward the view that the figures published by van Phelsum represented species of the high type ; he accordingly transferred the name *Echinocyamus* van Phelsum to the genus till then known as *Fibularia* Lamarck. Lambert's action had given rise—as Dr. Mortensen showed—to severe criticism from other leading specialists. It was evident, however, that order could not be restored in the nomenclature of this group until an authoritative ruling had been obtained from the International Commission. It was with the object of securing such a ruling that the present application was submitted to the Commission. The proposal so submitted was that the Commission should rule in favour of the acceptance of *Echinocyamus* van Phelsum, 1774, with *Spatagus pusillus* Müller (O.F.), 1776, as type species, and of *Fibularia* Lamarck, 1816, with *Echinocyamus craniolaris* Leske, 1778, as type species, thereby, it was hoped, standardising the first of these two names as the generic name for the species of the low type with internal radiating walls, and the second of these names as the generic name for species of the high type without such internal walls.

2. As has been explained in *Opinion* 206 (paragraphs 1 and 2) relating to the name *Diadema* Gray, 1825 (a case which was submitted jointly with the present case) an extensive canvas of the views of active workers in the Echinoderms had been undertaken by Dr. Mortensen before the present case was submitted

to the International Commission. Of the thirty-nine (39) specialists who had taken part in this consultation Lambert alone was opposed to the action recommended to the Commission, which had the unanimous support of the whole of the remaining thirty-eight (38) specialists concerned. The names and addresses of the specialists taking part in this consultation have already been given in *Opinion 206 (Diadema)*.

II.—THE SUBSEQUENT HISTORY OF THE CASE

3. In December 1932 the then Secretary (the late Dr. C. W. Stiles) reported Dr. Mortensen's application to the Commission in Circular Letter 220. On 20th December of that year, he wrote also to the Director of the United States Geological Survey, expressing the hope that arrangements might be made for these proposals to be examined by the palaeontologists of the Survey. On 19th January 1933, the Director replied, forwarding five comments by members of the staff, of which one was signed by two workers. These comments, in so far as they relate to the present case, were as follows :—

(a) *Comment by L. W. Stephenson and C. Wythe Cooke :*

I am in favor of codifying names concerning the strict validity of which there may be some question, if they have been in generally accepted use for long periods, but when it can be shown clearly that some other name has priority over a later more generally used name . . . is there not a danger of adding to, rather than subtracting from, the confusion? Will not some authors accept the rulings of the International Commission, while others will continue stoutly to maintain the validity of the names having priority? Furthermore, will not such rulings encourage a flood of demands for suspension of the Rules?

(b) *Comment by Lloyd G. Henbest :*

Dr. Mortensen's petition to conserve and restore certain Echinoderm names seems to be reasonable, except in the case of (Here are mentioned certain names with which this *Opinion* is not concerned.)

(c) *Comment (dated 6th January 1933) by John B. Reeside, Jr. :*

I see no particular objection to placing all of the names on the *List of established names*.

(d) *Comment by Edwin Kirke :*

I concur, except in the case of *Diadema* (See *Opinion* 206).

(e) *Comment (dated 16th January 1933) by W. P. Woodring :*

I am not familiar with the usage of these Echinoderm names, but as a general principle—other things being equal—I am in favor of special protection for names of long-standing usage that are being threatened.

4. In December 1933 Dr. Stiles reported to the Commission (in Circular Letter 245) the comments received earlier that year from the palaeontologists of the Geological Survey. In March 1935 Dr. Stiles reported to the Commission (in Circular Letter 291) that he had received no further comments on this or the other proposals submitted by Dr. Mortensen and his colleagues, and suggested that these proposals should be considered by the Commission when it met at Lisbon in September of that year.

5. When the International Commission assembled at Lisbon in 1935, it found itself severely handicapped in dealing with these proposals through the absence of the Secretary through ill-health and the fact that the documents relating to these cases were not available. At a short discussion of the present case at the Fourth Meeting of the Commission at its Lisbon Session held in the Library of the Faculty of Sciences on Tuesday, 17th September 1935, it was decided that, in the absence of the necessary documentation, the only practicable course was to postpone the present application for further consideration (Lisbon Session, 4th Meeting, Conclusion 3) (1943, *Bull. zool. Nomencl.* 1 : 33).

6. No further action had been taken in regard to this case at the time when, following the election of Mr. Francis Hemming to be Secretary to the International Commission in succession to Dr. Stiles, the papers relating to this and other current cases were transferred to his care in 1938. On the re-organisation of the Secretariat, the applications submitted by Dr. Mortensen in 1932, other than that relating to the name *Diadema* Gray, 1825, were grouped together under the Registered Number Z.N.(S.)18. Later, however, it was judged more convenient to register each of these cases separately, the Number Z.N.(S.)318 being then allotted to the present case. It had not been found possible to

advance the consideration of this case when in September 1939 the outbreak of war in Europe led to the evacuation of the records of the Commission from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. Unfortunately, however, it was not then possible to send the present case to the printer, for the paper of 1932, in which it had originally been submitted, did not deal with the matter in sufficient detail, and the circumstances of the war at that time made it impossible to communicate with Dr. Mortensen in Denmark.

7. In the summer of 1946 the conclusion of hostilities in Europe restored opportunities for foreign travel, and Dr. Mortensen paid a visit to London, largely for the purpose of discussing with Mr. Hemming the arrangements to be made for the further consideration of this, and of his other, applications by the International Commission. It was then agreed that, as a first step, Dr. Mortensen should prepare, and should furnish to Mr. Hemming as quickly as possible, separate applications of a somewhat fuller kind in regard to each of the outstanding cases which in 1932 he had submitted collectively in his paper "A Vote on Echinoderm Names" (see paragraph 1). As regards the present case, Dr. Mortensen intimated that he no longer proposed to ask the Commission to designate *Echinocyamus craniolaris* Leske, 1778, to be the type species of *Fibularia* Lamarck, 1816, for it had now transpired that, contrary to the belief previously held, the foregoing nominal species represented a species of the low type with internal radiating walls, that is, a species of the genus known as *Echinocyamus* van Phelsum, 1774; its designation as the type species of *Fibularia* Lamarck would thus destroy an important part of the purpose of his application by making *Fibularia* a subjective junior synonym of *Echinocyamus*. He proposed in his revised application to recommend the substitution, for *Echinocyamus craniolaris* Leske, of *Fibularia ovulum* Lamarck, 1816, a nominal species which undoubtedly represented a species of the high type without internal radiating walls, as the type

species of *Fibularia* Lamarck. At the same time, Mr. Hemming expressed the view that, when considering this case, the Commission would need to examine the question whether van Phelsum could properly be regarded as having applied the principles of binominal nomenclature in his *Brief* of 1774, if, as he hoped, the Paris Congress were to make this a necessary condition for the availability of a name by substituting the word "binominal" for the extremely unsatisfactory word "binary" in Proviso (a) to Article 25. If that Article were to be changed in this way, it would not prejudice the chances of the Commission approving Dr. Mortensen's application, but it would make it necessary for it to use its Plenary Powers to validate the name *Echinocyamus* van Phelsum as well as for the purpose of designating the desired type species for the genus so named.

8. Dr. Mortensen's revised application in the present case was received on 14th June 1947. It was as follows:—

**On the status of the names "Echinocyamus" v. Phelsum and
"Fibularia" Lamarck (Class Echinoidea, Order
Clypeastroida)**

In December 1932, I submitted to the International Commission on Zoological Nomenclature a request that under their Plenary Powers they should validate certain generic names in the Phylum Echinoderma which under the *Règles Internationales* were either invalid, or had, as their type species, other species than those universally attributed them. In each case, I was of opinion that greater confusion than uniformity would clearly result from the strict application of the *Règles*. In this view I was supported by a large number of the leading specialists in this group. Full particulars of these cases were given in a paper entitled "A Vote on some Echinoderm Names" published in October 1932 (*Ann. Mag. Nat. Hist.* (10) **10** : 345—368). Owing to the ill-health of the then Secretary of the International Commission, and for other reasons, no progress was made with any of these applications except that of *Luidia* Forbes, which has been settled by the Commission in *Opinion* 129. The need for decisions on these cases has increased in urgency in the interval elapsed since 1932 and I now ask the Commission to take each of these cases into immediate consideration.

Discussion of the case *Echinocyamus*—*Fibularia*.

The name *Echinocyamus* was given by Murk v. Phelsum, 1774, in his "Brief aan Cornelius Nozeman over de Gewelv-Slekken of Zee-Egelen" p. 131. He describes and figures no less than fourteen

species, giving them only Dutch names "Kriekpit", "Kersepit", etc. The figures are exceedingly poor and not clearly referable to any species. Of the five figures given of each "species", the two first appear to represent a flat form, the three last a high, globose form, evidence of the inability of the artist to draw recognisably these small forms enlarged. V. Phelsum states that his specimens came from the Adriatic (and America), where only the flat form, *Echinocyamus pusillus*, lives—and is very commonly found on the beaches. The only thing that can be said with certainty about v. Phelsum's *Echinocyamus* species is that the common *Echinocyamus pusillus* (O. Fr. Müller) must be among them, and, moreover, since all agree that all v. Phelsum's 14 species are in fact one and the same species, they all represent *Echinocyamus pusillus*. Leske in his *Additamenta ad I. Th. Kleinii Naturalis Dispositio Echinodermatum* 1778, gave Latin names to all v. Phelsum's species. Accordingly all these species names of Leske become simply synonyms of *Echinocyamus pusillus* (O. Fr. Müller), also those two of Leske's names which have been used to some degree, *angulosus* and *craniolaris*.

Lamarck, in his *Histoire Naturelle des Animaux sans vertèbres* 1816, 3. p. 17, does not use the name *Echinocyamus*, but creates a new genus *Fibularia* under which he has three species: *trigona*, *ovulum* and *tarentina*. The first of these has never been figured, and is not recognisable from the diagnosis. The second species, *ovulum*, is sufficiently characterised by the words "globoso-ovata, basi subangustata". This species accordingly is the type of the genus *Fibularia*, as almost unanimously acknowledged.* The third species, *tarentina* is=*Echinocyamus pusillus*.

The first to recognise that the low, flat form and the high, globose form represent two distinct generic types, *Echinocyamus* and *Fibularia*, is L'Agassiz in his *Monographie des Scutelles*, 1841, and since then the name *Echinocyamus* has unanimously been accepted as the name of the low, flat forms, like the type *Echinocyamus pusillus*, and *Fibularia* has likewise been unanimously accepted as the name of the high, globose forms, like the type *Fibularia ovulum*.

In 1891, however, Lambert, in his "Note sur le genre *Echinocyamus*" (*Bull. Soc. géol. France* (3) 29. p. 794) maintains that the figures illustrating v. Phelsum's book prove that his *Echinocyamus* was the

* H. L. Clark, in his "Hawaiian and other Pacific Echini. Clypeastridae, . . . Laganidae, Fibulariidae, and Scutellidae". *Mem. Mus. Comp. Zool.* 46. 1914, p. 57, declares the species *trigona* Lamarck=*Echinocyamus craniolaris* Leske, the genotype of *Fibularia*, forgetting that there is no certainty at all what *trigona* Lamarck really is, and that if it be =*craniolaris* Leske, that means that it is =the flat *Echinocyamus pusillus*, which Clark would never think of referring to the genus *Fibularia*. But this mistake of Clark has had the unfortunate consequence that all authors after 1914 have uncritically accepted Clark's statement and changed the name *ovulum* Lamarck into *craniolaris* Leske. In the forthcoming Vol. IV Part 2 of my *Monograph of the Echinoidea* the matter will be set right and the name *ovulum* Lamarck reinstalled.

high, globose form, and accordingly he interchanges the names *Echinocyamus* and *Fibularia*, using *Echinocyamus* for the high, globose forms, *Fibularia* for the low, flat forms, contrary to the hitherto unanimous use of the two names. The change thus introduced was met with protest by the foremost authorities on fossil Echinoids, Cottreau and de Loriol, as well as by the present author, but Lambert emphatically maintained his view; against the objection that van Phelsum states his specimens came from the Adriatic, where only the flat form occurs, he boldly says that v. Phelsum was in error, adding "on sait d'ailleurs avec quelle facilité peuvent s'égarer des étiquettes volantes"!

Up till 1914, Lambert was alone in using the two names in this sense, contrary to the otherwise unanimous use of both zoologists and palaeontologists of *Echinocyamus* for the flat forms, *Fibularia* for the high, globose forms. But in 1914 the interchange of the two names was carried through in Lambert & Thiéry's "Essai de nomenclature raisonnée des Echinides", and since then several palaeontologists have uncritically followed Lambert & Thiéry in using the two names in the inverted sense, though others have protested; even Thiéry himself returned to the old use. The result of all this is the most deplorable confusion. Impossible now to tell what these names mean—and very many fossil species of these forms have been described since 1914. It must be left to future palaeontologists to clear up the mess caused by Lambert. Fortunately no student of the recent forms has condescended to adopt the views of Lambert; but great harm has been done to Palaeontology, a great number of these small forms being known from all the Tertiary formations.

In order to avoid the confusion continuing in the future, I ask the Commission on Zoological Nomenclature, acting under the Plenary Powers conferred upon them by the International Congress of Zoology, to validate the two said names in the, apart from Lambert and his followers, unanimous sense, namely

Echinocyamus van Phelsum—genotype (*Spatagus*) *pusillus*. O. Fr. Müller, 1776. *Zoologia Danicae Prodrromus*. p. 236.

Fibularia Lamarck—genotype *Fibularia ovulum*. Lamarck, 1816. *Histoire des Animaux sans vertèbres*. 3. p. 1.

The two names will be used in this sense in the forthcoming Vol. 4. Part II of my Monograph of the Echinoidea.

In my "Vote on some Echinoderm names" quoted above this proposal was supported by: Bather, Brighton, A. H. Clark, Cottreau, Currie, Deichmann, Diakonow, Döderlein, Ekman, Faas, Fedotov, Fisher, Gislén, Goto, Gregory, Grieg, Hawkins, Hecker, Heding, Hérouard, v. Hofsten, Jackson, Klinghardt, Lieberkind, Mortensen, Nobre, Ohshima, Panning, Ravn, Reichensperger, Schmidt, Spencer, Stenfanini, Valette, Vaney, Wanner and Yakowlew—viz. nearly all the living specialists in Echinoderms, apart, of course, from Lambert.

9. On 14th November 1947 a notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the action proposed in this case.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

10. The present application was considered by the International Commission on Zoological Nomenclature at the Fourteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 2030 hours. The following is an extract from the Official Record of the Proceedings of the International Commission (1) summarising the points made in the discussion at the foregoing meeting and (2) setting out the decision then reached by the Commission in regard to this case (Paris Session, 14th Meeting, Conclusion 34) (1950, *Bull. zool. Nomencl.* 4 : 516—519) :—

IN DISCUSSION the view was expressed that this was a case where confusion had arisen (or was calculated to arise) in the main not through the strict application of the *Règles* but through doubt as to how the *Règles* should be applied as the result of differences of opinion on the taxonomic question of the identity of the species included by van Phelsum in his genus *Echinocyamus*. In addition, however, there were strictly nomenclatorial issues involved, such as the doubt as to whether van Phelsum could properly be regarded as a binominal author (and therefore whether, without the use of the Plenary Powers, the name *Echinocyamus* had any standing as from van Phelsum, 1774) and the situation created by the selection by H. L. Clark (1914), as the

type species of *Fibularia* Lamarck, of the species *Fibularia trigona* Lamarck, a species regarded by the present applicants as being unrecognisable. There was general agreement, however, that the Plenary Powers should be used in this case, in order to prevent the confusion which would otherwise inevitably follow the transfer of the name *Echinocyamus* to the genus now known as *Fibularia*, and of the name *Fibularia* to the genus now known as *Echinocyamus*.

THE COMMISSION agreed :—

- (1) to use their Plenary Powers to set aside all selections of type species for the undermentioned genera and to validate the generic names in question, with the species specified below as respective type species :—

<i>Generic Name</i> <i>Validated</i>	<i>Species designated as</i> <i>the type species of</i> <i>the genus specified</i> <i>in Col. (1)</i>
(1)	(2)
<i>Echinocyamus</i> van Phelsum, 1774	<i>Spatagus pusillus</i> Müller, (O.F.), 1776
<i>Fibularia</i> Lamarck, 1816	<i>Fibularia ovulum</i> Lamarck, 1816

- (2) to place on the *Official List of Generic Names in Zoology* the generic names *Echinocyamus* van Phelsum, 1774 and *Fibularia* Lamarck, 1816, with the type species severally specified in (1) above ;
- (3) to place the under-mentioned trivial names on the *Official List of Specific Trivial Names in Zoology* :—
pusillus Müller (O.F.), 1776 (as published in the binominal combination *Spatagus pusillus*) ;
ovulum Lamarck, 1816 (as published in the binominal combination *Fibularia ovulum*) ;
- (4) to render an *Opinion* recording the decisions specified in (1) to (3) above.

11. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

Echinocyamus van Phelsum, 1774, *Brief Gewelv-Slekken Zee-Egelen* : 131

Fibularia Lamarck, 1816, *Hist. nat. Anim. s. Vertèbr.* 3 : 16

ovulum, Fibularia, Lamarck, 1816, *Hist. nat. Anim. s. Vertèbr.* 3 : 17

pusillus, Spatagus, Müller (O.F.), 1776, *Zool. dan. Prodr.* : 236

12. The genders of the generic names *Echinocyamus* van Phelsum, 1774, and *Fibularia* Lamarck, 1816, referred to in the decision quoted in paragraph 10 above, are masculine and feminine respectively.

13. The decision taken in this case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Sixth Meeting held on 26th July, 1948 (1950, *Bull. zool. Nomencl.* 5 : 116).

14. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

15. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

16. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression “trivial name” and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word “trivial” appearing also

in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

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

18. The present *Opinion* shall be known as *Opinion Two Hundred and Seven* (207) of the International Commission on Zoological Nomenclature.

DONE in London this Twenty-First day of November, Nineteen Hundred and Fifty-Three.

*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 3. Part 27. Pp. 353—366

OPINION 208

Validation, under the Plenary Powers, of *Phyllacanthus*
Brandt, 1835, and *Strongylocentrotus* Brandt, 1835
(Class Echinoidea)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 208

A. The Officers of the Commission

President : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).

Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).

Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

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Mr. Francis HEMMING (*London, England*) (*Secretary to the Commission*).

Dr. Karl JORDAN (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*) (*President of the Commission*).

Dr. Th. MORTENSEN (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Dr. Joseph PEARSON (*Tasmanian Museum, Hobart, Tasmania, Australia*).

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Dr. Norman R. STOLL (*Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.*).

C. Alternate Members of the Commission at the Session held in Paris in 1948

Professor Enrique BELTRÁN (*Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico*).

Dr. Edward HINDLE (*Zoological Society of London, London, England*).

Dr. Arturo Ricardo JORGE (*Museu Bocage, Lisbon, Portugal*).

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Professor Ragnar SPÄRCK (*Universitetets Zoologisk Museum, Copenhagen, Denmark*).

Professor Victor van STRAELEN (*Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium*).

Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

OPINION 208

VALIDATION, UNDER THE PLENARY POWERS, OF “PHYLLACANTHUS” BRANDT, 1835, AND “STRONGYLOCENTROTUS” BRANDT, 1835 (CLASS ECHINOIDEA)

RULING :—(1) The following action is hereby taken under the Plenary Powers, in so far as the use of those Powers is necessary therefor :—(a) The names *Phyllacanthus* Brandt, 1835, and *Strongylocentrotus* Brandt, 1835 (Class Echinoidea), are hereby validated as of subgeneric status as from the date on which they were published in Brandt's *Prodromus* ; (b) *Cidarites* (*Phyllacanthus*) *dubius* Brandt, 1835, is hereby designated as the type species of *Phyllacanthus* Brandt, 1835 ; (c) *Echinus dröbachiensis* Müller (O.F.), 1776, is hereby designated as the type species of *Strongylocentrotus* Brandt, 1835. (2) The generic names *Phyllacanthus* Brandt, 1835 (gender of name : masculine), and *Strongylocentrotus* Brandt, 1835 (gender of name : masculine), validated as in (1)(a) above and with the type species severally designated therefor in (1)(b) and (1)(c) above, are hereby placed on the *Official List of Generic Names in Zoology* as Names Nos. 636 and 637. (3) The following specific names are hereby placed on the *Official List of Specific Names in Zoology* as Names Nos. 12 and 13 : (a) *dubius* Brandt, 1835, as published in the combination *Cidarites* (*Phyllacanthus*) *dubius*, (b) *dröbachiensis* Müller (O.F.), 1776, as published in the combination *Echinus dröbachiensis*.

I.—THE STATEMENT OF THE CASE

The present is the fifth of the eight cases relating to disputed Echinoderm names submitted to the International Commission on Zoological Nomenclature by the late Dr. Th. Mortensen (*Universitetets Zoologisk Museum, Copenhagen*) under cover of

a letter dated 17th November 1932. The arguments in regard to these cases are set out in a paper by Dr. Mortensen entitled "A Vote on some Echinoderm Names", which had been published a month earlier (Mortensen, October 1932, *Ann. Mag. nat. Hist.* (10)10 : 345—368). This application is concerned with the names *Phyllacanthus* Brandt, 1835, and *Strongylocentrotus* Brandt, 1835. The point at issue was a simple one: The above names had been accepted by Agassiz and subsequent workers as having been published by Brandt as the names of subgenera, the former, of *Cidarites*, the latter, of *Echinus*, but in 1909 Lambert & Thiéry had claimed that the manner in which these names had been published by Brandt showed that he regarded them not as names for new subgenera but as synonyms of *Cidarites* and *Echinus* respectively. The purpose of Dr. Mortensen's application was to secure from the International Commission an authoritative ruling that these names were to be accepted as having been published by Brandt with subgeneric status.

2. As has been explained in *Opinion* 206 (paragraphs 1 and 2) relating to the name *Diadema* Gray, 1825 (a case which was submitted jointly with the present case), an extensive canvas of the views of active workers in the Echinoderms had been undertaken by Dr. Mortensen before the present case was submitted to the International Commission. Of the thirty-nine (39) specialists who had taken part in this consultation Lambert alone did not sign the application to the Commission, which had the unanimous support of all the remaining thirty-eight (38) specialists concerned. Even Lambert appears to have felt some hesitation in this matter, for he wrote (Mortensen, 1932 : 356) : " Bien que regrettable je reconnais que ce changement peut être admis sans violer positivement le loi de priorité." The names and addresses of the specialists who took part in this consultation have already been given in *Opinion* 206 (*Diadema*).

II.—THE SUBSEQUENT HISTORY OF THE CASE

3. In December 1932 the then Secretary (the late Dr. C. W. Stiles) reported Dr. Mortensen's application to the Commission

in Circular Letter 220. On 20th December of that year, he wrote also to the Director of the United States Geological Survey, expressing the hope that arrangements might be made for these proposals to be examined by the palaeontologists of the Survey. On 19th January 1933, the Director replied, forwarding five comments by members of the staff, of which one was signed by two workers. These comments, in so far as they relate to the present case, were as follows :—

(a) *Comment by L. W. Stephenson and C. Wythe Cooke :*

I am in favor of codifying names concerning the strict validity of which there may be some question, if they have been in generally accepted use for long periods, but when it can be shown clearly that some other name has priority over a later more generally used name . . . is there not a danger of adding to, rather than subtracting from, the confusion? Will not some authors accept the rulings of the International Commission, while others will continue stoutly to maintain the validity of the names having priority? Furthermore, will not such rulings encourage a flood of demands for suspension of the Rules?

(b) *Comment by Lloyd G. Henbest :*

Dr. Mortensen's petition to conserve and restore certain Echinoderm names seems to be reasonable, except in the case of (Here are mentioned certain names with which this *Opinion* is not concerned.)

(c) *Comment (dated 6th January 1933) by John B. Reeside, Jr.:*

I see no particular objection to placing all of the names on the *List* of established names.

(d) *Comment by Edwin Kirke :*

I concur, except in the case of *Diadema* (see *Opinion* 206)

(e) *Comment (dated 16th January 1933) by W. P. Woodring :*

I am not familiar with the usage of these Echinoderm names, but as a general principle—other things being equal—I am in favor of special protection for names of long-standing usage that are being threatened.

4. In December 1933 Dr. Stiles reported to the Commission (in Circular Letter 245) the comments received earlier that year from the palaeontologists of the Geological Survey. In March 1935 Dr. Stiles reported to the Commission (in Circular Letter

291) that he had received no further comments on this or the other proposals submitted by Dr. Mortensen and his colleagues, and suggested that these proposals should be considered by the Commission when it met at Lisbon in September of that year.

5. When the International Commission assembled at Lisbon in 1935, the Secretary was absent through ill-health and the documents relating to this case were not available. The Commission accordingly found itself unable to deal with the present application.

6. No further progress had been made with this application at the time when, following the election of Mr. Francis Hemming to be Secretary to the International Commission in succession to Dr. Stiles, the papers relating to this and other current cases were transferred to his care in 1938. On the re-organisation of the Secretariat, the applications submitted by Dr. Mortensen, other than that relating to the name *Diadema* Gray, 1825, were grouped together under the Registered Number Z.N.(S.)18. Later, however, it was judged more convenient to register each of these cases separately, the Number Z.N.(S.)319 being then allotted to the present case. It had not been found possible to advance the consideration of this case when in September 1939 the outbreak of war in Europe led to the evacuation of the records of the Commission from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942 and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. Unfortunately, however, it was not then possible to send the present case to the printer, for the paper of 1932 in which it had originally been submitted did not deal with the matter in sufficient detail, and the circumstances of the war made it impossible at that time to communicate with Dr. Mortensen in Denmark.

7. In the summer of 1946 the conclusion of hostilities in Europe restored opportunities for foreign travel, and Dr. Mortensen paid a visit to London largely for the purpose of discussing with Mr.

Hemming the arrangements to be made for the further consideration of this, and his other, applications by the International Commission. It was then agreed that, as a first step, Dr. Mortensen should prepare, and should furnish to Mr. Hemming as quickly as possible, separate applications of a somewhat fuller kind in regard to each of the outstanding cases which in 1932 he had submitted collectively in his paper "A Vote on some Echinoderm Names" (paragraph 1).

8. Dr. Mortensen's revised application in the present case was received on 14th June 1947. It was as follows:—

**On the status of the names "Phyllacanthus" Brandt and
"Strongylocentrotus" Brandt (Class Echinoidea,
Orders Cidaroida and Camarodonta)**

By TH. MORTENSEN, Ph.D.

In December 1932, I submitted to the International Commission on Zoological Nomenclature a request that under their Plenary Powers they should validate certain generic names in the Phylum Echinoderma which under the *Règles Internationales* were either invalid or had, as their type species, other species than those universally attributed to them. In each case I was of opinion that greater confusion than uniformity would clearly result from the strict application of the *Règles*. In this view I was supported by a large number of the leading specialists in this group. Full particulars of these cases were given in a paper entitled "A Vote on some Echinoderm names" published in October 1932 (*Ann. Mag. Nat. Hist.* (10)10 : 345—368). Owing to the ill-health of the then Secretary of the International Commission, and for other reasons, no progress was made with any of these applications except that of *Luidia* Forbes, which has been settled by the Commission in *Opinion* 129. The need for decisions on these cases has increased in urgency in the interval elapsed since 1932 and I now ask the Commission to take each of these cases into immediate consideration.

Discussion of the case of the two genera named above.

In his *Prodromus descriptionis animalium ab H. Mertensio in orbis terrarum circumnavigatione observatorum* (1835), J. F. Brandt established the subgenera *Phyllacanthus* and *Strongylocentrotus* respectively under the genera *Cidarites* and *Echinus*, the former with the species *dubia* Brandt, the latter with the species *chlorocentrotus* Brandt, as the only species named and accordingly the genotypes. The two

subgenera of Brandt were accepted by Agassiz in his "Revision of the Echini", who referred to them, besides the two genotypes, a great number of species, which have later on been shown (Mortensen, "Ingolf" Echinoidea—I.) to belong to several different genera. But the two names have constantly been used in echinological literature and, particularly *Strongylocentrotus*, are well-known names in biological literature in general.

In 1909, Lambert & Thiéry, in their "Notes échinologiques.—II. Sur les genres d'Echinides proposés par Brandt en 1835" (*Bull. Soc. Sci. nat. Haute-Marne*, 4), maintain that the two said names are simply synonyms respectively of *Cidarites* and *Echinus*, and proceed to make a lot of rearrangements of Echinoid nomenclature, the more extraordinary since, founding on their principle that classification of recent Echini must be based solely on such characters as can also be found in the fossil forms, they quite ignore the results of studies on microscopical characters of Echini.

It is perhaps possible that, on a very strict interpretation, the two names were really only meant as synonyms of *Cidarites* and *Echinus*, but the two names were rightly established as generic names by Agassiz, and, as they have since been generally adopted and are very generally known, it would be quite absurd now to drop them because of a very disputable interpretation of what was the original meaning of the author of these names.

In order to avoid the confusion in Echinoid nomenclature resulting from the highly disputable interpretation of Brandt's work maintained by Lambert & Thiéry, I ask the International Commission on Zoological Nomenclature, acting under the Plenary Power conferred upon them by the International Congress of Zoology, to place the two said names with genotypes, as specified, on the *Official List of Generic Names* :

Phyllacanthus Brandt, with genotype *Phyllacanthus dubius* Brandt (*Op. cit.* p. 68)

Strongylocentrotus Brandt, with genotype *Echinus chlorocentrotus* Brandt (*Op. cit.* 1835, p. 64). This species being a synonym of *Echinus dröbachiensis* O. Fr. Müller (1776. *Zoologia Danicae Prodrromus*, p. 235), this latter eo ipso becomes the genotype of *Strongylocentrotus*.

The two names are used in this sense in my Monograph of the Echinoidea I. p. 500 and 3. Part III. p. 193.

In my "Vote on some Echinoderm names" quoted above, this proposal was supported by : Bather, Brighton, A. H. Clark, H. L. Clark, Cottreau, Currie, Deichmann, Diakonov, Döderlein, Ekman, Faas, Fedotov, Fisher, Gislén, Goto, Gregory, Grieg, Hawkins, Hecker, Heding, Hérouard, v. Hofsten, Jackson, Klinghardt, Lieberkind, Mortensen, Nobre, Ohshima, Panning, Ravn, Reichensperger, Schmidt, Spencer, Stefanini, Valette, Vaney, Wanner, Yakovlev.

9. On 14th November 1947 a notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the action proposed in this case.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

10. The present application was considered by the International Commission on Zoological Nomenclature at the Fourteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 2030 hours. The following is an extract from the Official Record of the Proceedings of the International Commission (1) summarising the points made in the discussion at the foregoing meeting and (2), setting out the decision then reached by the Commission in regard to this case (Paris Session, 14th Meeting, Conclusion 35) (1950, *Bull. zool. Nomencl.* 4 : 519—522) :—

THE COMMISSION examined Commission File Z.N.(S.) 319, containing an application submitted by Dr. (now Commissioner) Th. Mortensen (Denmark) on his own behalf and on that of a large group of other specialists in the Class Echinoidea that the Commission should use their Plenary Powers to direct that the names *Phyllacanthus* Brandt, 1835 (Class Echinoidea, Order Cidaroida) and *Strongylocentrotus* Brandt, 1835 (Class Echinoidea, Order Camarodonta) were to be treated as having been published by the above author as subgeneric names with *Cidarites* (*Phyllacanthus*) *dubius* Brandt, 1835, and *Echinus* (*Strongylocentrotus*) *chlorocentrotus* Brandt, 1835, as respective type species. Dr. Mortensen explained that the names *Phyllacanthus* and *Strongylocentrotus* were accepted by Agassiz and by all subsequent authors up to the year 1909. Both names, especially *Strongylocentrotus*, had in this way become widely known, not

only in echinological literature, but also in biological literature generally. In 1909, however, Lambert and Thiéry had advanced the view that these names had not been published by Brandt as new subgeneric names, but as synonyms, respectively, of *Cidarites* Leske, 1778, and *Echinus* Linnaeus, 1758. On the basis of this conclusion, these authors had then proceeded to make a considerable number of consequential changes in the nomenclature of the group of which these genera formed part. The conclusions reached by Lambert and Thiéry in regard to Brandt's intentions when he published these two names were regarded as highly disputable by echinologists generally, by whom the changes in nomenclature suggested by Lambert and Thiéry had not been accepted. While in Dr. Mortensen's view, it was possible that these two names had, in fact, been looked upon by Brandt as synonyms (of *Cidarites* and *Echinus* respectively), the practical application of this conclusion would, in his opinion and in that of the large number of specialists associated with him in the present application, lead to great confusion and could not possibly be justified. The present application had been one of the eight applications on which Dr. Mortensen had consulted 38 leading specialists before (in 1932) he submitted his proposals to the Commission. Of these specialists (the names of whom have been given in Conclusion 32), 37 had voted in favour of the submission of the present proposals to the Commission, the sole exception being Lambert himself.

THE ACTING PRESIDENT (MR. FRANCIS HEMMING) said that the present case had been advertised but the advertisement had elicited no adverse comment on the action proposed. As regards the trivial name of the type species of the genus *Strongylocentrotus* Brandt, the Acting President observed that that species was invariably known by the trivial name *drøbachiensis* Müller (O.F.), 1776, (as published in the binominal combination *Echinus drøbachiensis*) and that, in view of the fact that it was proposed in any case to use the Plenary Powers to validate the generic name *Strongylocentrotus*, and to designate its type species, it would be desirable at the same time to designate the foregoing nominal species to be the type species rather than the

nominal species *Echinus (Strongylocentrotus) chlorocentrotus* Brandt, 1835, the name under which the taxonomic species concerned had been cited by Brandt, when he published the name *Strongylocentrotus*.

IN DISCUSSION the view was expressed that it would clearly be wrong to countenance the introduction of extensive and confusing changes in the nomenclature of a group, on the strength solely of an argument which (as here) rested upon a subjective interpretation of the intention of a given author when publishing a given name, when (as here) that interpretation was contested by almost the entire body of interested specialists. In view of the doubts arising from the interpretation by Lambert and Thiéry of Brandt's intentions when he first published the names *Phyllacanthus* and *Strongylocentrotus*, it would be necessary for the Commission to use their Plenary Powers, in order to put an end to further discussion. It would be desirable, however, that, in this, as in previous similar cases, the Commission should use those powers conditionally and to such extent (if any) as might be necessary. In other words, the Commission should make it clear that in using those powers for the purpose of validating the foregoing names as of subgeneric status as from Brandt, 1835, they did so only if and in so far as this course was necessary to attain the desired end and that their action in this matter was not to be construed as expressing an opinion on the question whether (as alleged by Lambert and Thiéry) the names in question had been regarded by their original author, not as subgeneric names, but as synonyms of the generic names, with which these names had been severally associated by that author.

THE COMMISSION agreed :—

- (1) to use their Plenary Powers :—
 - (a) to such extent as might be necessary :—
 - (i) to validate the names *Phyllacanthus* Brandt, 1835, and *Strongylocentrotus* Brandt, 1835 (Class Echinoidea, Order Cidaroida) as of subgeneric status as from the date of being so published ;
 - (ii) to designate *Cidarites (Phyllacanthus) dubius* Brandt, 1835, as the type species of *Phyllacanthus* Brandt, 1835,
 - (b) to designate *Echinus drobachiensis* Müller (O.F.), 1776, to be the types species of the genus *Strongylocentrotus* Brandt, 1835 ;
- (2) to place on the *Official List of Generic Names in Zoology* the names *Phyllacanthus* Brandt, 1835, and *Strongylocentrotus* Brandt, 1835, validated as in (1) above and with the type species there severally specified ;
- (3) to place the undermentioned trivial names on the *Official List of Specific Trivial Names in Zoology* :—

dubius Brandt, 1835 (as published in the binominal combination *Cidarites (Phyllacanthus) dubius*) ;

drobachiensis Müller (O.F.), 1776 (as published in the binominal combination *Echinus drobachiensis*) ;
- (4) to render an *Opinion* recording the decisions specified in (1) to (3) above.

11. The following are the original references for the names which appear in the decision set out in the immediately preceding paragraph :—

drobachiensis, *Echinus*, Müller (O.F.), 1776, *Zool. dan. Prodr.* : 235
dubius, *Cidarites (Phyllacanthus)*, Brandt (J.F.), 1835, *Prodr.*

Descr. Anim. Mertens. Orb. Terr. Circumnav. observ. 1 : 68

Phyllacanthus Brandt (J.F.), 1835, *Prodr. Descr. Anim. Mertens.*

Orb. Terr. Circumnav. observ. 1 : 67

Strongylocentrotus Brandt (J.F.), 1835, *Prodr. Descr. Anim.*

Mertens. Orb. Terr. Circumnav. observ. 1 : 63

12. The genders of the generic names *Phyllacanthus* Brandt, 1835, and *Strongylocentrotus* Brandt, 1835, referred to in the decision quoted in paragraph 10 above, are both masculine.

13. The decision taken in this case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948 at its Sixth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl. 5 : 116—117*).

14. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boshma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

15. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

16. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression “trivial name” and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word “trivial” appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression “specific name” was substituted for the

expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

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

18. The present *Opinion* shall be known as *Opinion* Two Hundred and Eight (208) of the International Commission on Zoological Nomenclature.

DONE in London this Twenty-second day of November, Nineteen Hundred and Fifty-Three.

*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 3. Part 28. Pp. 367—392

OPINION 209

Validation of, and designation of type species for, *Brissus* Gray, 1825, *Echinocardium* Gray, 1825, and *Spatangus* Gray, 1825 (Class Echinoidea) under the Plenary Powers, and designation, under those Powers, of a type species for *Schizaster* Agassiz (L.), 1836, and, in so far as necessary, for *Moira* Agassiz (A.), 1872

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 209

A. The Officers of the Commission

- President* : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History) Zoological Museum, Tring, Herts, England*).
Vice-President : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).
Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

- Senor Dr. Angel CABRERA (La Plata, Argentina).
Mr. Francis HEMMING (London, England) (*Secretary to the Commission*).
Dr. Karl JORDAN (British Museum (Natural History), Zoological Museum, Tring, Herts, England) (*President of the Commission*).
Dr. Th. MORTENSEN (Universitetets Zoologisk Museum, Copenhagen, Denmark).
Dr. Joseph PEARSON (Tasmanian Museum, Hobart, Tasmania, Australia).

Class 1952

- Senhor Dr. Afranio do AMARAL (S. Paulo, Brazil).
Professor J. Chester BRADLEY (Cornell University, Ithaca, N.Y., U.S.A.).
Professor Lodovico di CAPORIACCO (University of Parma, Italy).
Professor J. R. DYMOND (University of Toronto, Canada).
Dr. James L. PETERS (Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.) (*Vice-President of the Commission*).
Dr. Harold E. VOKES (United States Geological Survey, Washington, D.C., U.S.A.).

Class 1955

- Professor Dr. Hilbrand BOSCHMA (Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands).
Dr. William Thomas CALMAN (Tayport, Fife, Scotland).
Professor Teiso ESAKI (Kyushu University, Fukuoka, Japan).
Professor Béla HANKÓ (University of Debrecen, Hungary).
Dr. Tadeusz JACZEWSKI (Polish Zoological Museum, Warsaw, Poland).
Dr. Norman R. STOLL (Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.).

C. Alternate Members of the Commission at the Session held in Paris in 1948

- Professor Enrique BELTRÁN (Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico).
Dr. Edward HINDLE (Zoological Society of London, London, England).
Dr. Arturo Ricardo JORGE (Museu Bocage, Lisbon, Portugal).
Professor Harold KIRBY (University of California, Berkeley, California, U.S.A.).
Dr. Henning LEMCHE (Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark).
Professor Kamel MANSOUR (King Fouad University, Cairo, Egypt).
Professor Z. P. METCALF (North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.).
Mr. N. D. RILEY (British Museum (Natural History), London, England).
Professor Ragnar SPÄRCK (Universitetets Zoologisk Museum, Copenhagen, Denmark).
Professor Victor van STRAELEN (Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium).
Professor Robert L. USINGER (University of California, Berkeley, California, U.S.A.).

OPINION 209

VALIDATION OF, AND DESIGNATION OF TYPE SPECIES
FOR, "BRISSUS" GRAY, 1825, "ECHINOCARDIUM"
GRAY, 1825, AND "SPATANGUS" GRAY, 1825
(CLASS ECHINOIDEA) UNDER THE PLENARY
POWERS, AND DESIGNATION, UNDER
THOSE POWERS, OF A TYPE SPECIES
FOR "SCHIZASTER" AGASSIZ
(L.), 1836, AND, IN SO FAR AS
NECESSARY, FOR "MOIRA"
AGASSIZ (A.), 1872

RULING :—(1) The following action is hereby taken under the Plenary Powers : (a) The under-mentioned generic names are suppressed for the purposes both of the Law of Priority and of the Law of Homonymy : (i) *Brissus* Müller, 1781 ; (ii) *Brissus* Modeer, 1793 ; (iii) *Brissus* Link, 1807 ; (iv) *Brissus* Oken, 1815 ; (v) *Brissus* Dahl, 1823 (emend. of *Bryssus* Dejean, 1821) ; (vi) *Bryssus* Dejean, 1821 ; (vii) *Brissus*, as used by any other author prior to the publication of *Brissus* Gray, 1825 ; (viii) *Echinocardium* Leske, 1778 (in so far as that name was published by that author as a generic name) ; (ix) *Spatangus* Leske, 1778 ; (x) *Spatangus* Modeer, 1793 ; (xi) *Spatangus*, as used by any other author prior to the publication of *Spatangus* Gray, 1825. (b) The following names are validated : (i) *Brissus* Gray, 1825, (ii) *Echinocardium* Gray, 1825, (iii) *Spatangus* Gray, 1825 (Class Echinoidea) ; (c) All type selections for the under-mentioned genera made prior to the present Ruling are set aside, and the following species are designated as the type species for those genera :—(i) *Echinus cordatus* Pennant, 1777, to be the type species of *Echinocardium* Gray, 1825 ; (ii) *Spatangus brissus* var. *unicolor* Leske, 1778, to be the type species of *Brissus* Gray, 1825 ; (iii) *Spatagus* [sic] *purpureus* Müller (O.F.), 1776, to be type species of *Spatangus* Gray, 1825 ; (iv) *Schizaster studeri* Agassiz (J.L.R.), 1840, to be the type species of *Schizaster* Agassiz (J.L.R.), [1836].

(2) In so far as such action may be necessary, the Plenary Powers are hereby used to designate *Spatangus atropos* Lamarck, 1816, to be the type species of *Moira* Agassiz (A.), 1872.

(3) The reputed generic name *Brissus* Leske, 1778, possesses no status under the Law of Priority, having regard to the fact that this term was published by Leske in the nominative plural (as *Brissi*) instead of in the nominative singular as required by Article 8.

(4) The under-mentioned generic names are hereby placed on the *Official List of Generic Names in Zoology* with the Numbers severally specified below :—(a) *Brissus* Gray, 1825 (gender of name : masculine), *Echinocardium* Gray, 1825 (gender of name : neuter), *Spatangus* Gray, 1825 (gender of name : masculine), as validated in (1)(b) above and with the type species designated in (1)(c)(i)—(iii) above (Names Nos. 638 to 640) ; (b) *Schizaster* Agassiz (J.L.R.), [1836] (gender of name : masculine), with the type species designated in (1)(c)(iv) above (Name No. 641) ; (c) *Moira* Agassiz (A.), 1872 (gender of name : feminine), with the type species designated in (2) above (Name No. 642) ; (d) *Ova* Gray, 1825 (gender of name : feminine) (type species, by monotypy : *Spatangus canaliciferus* Lamarck, 1816) (Name No. 643).

(5) The under-mentioned generic names or alleged generic names are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—(a) the eleven names suppressed under the Plenary Powers in (1)(a) above (Names Nos. 13 to 23) ; (b) the reputed but non-existent name *Brissus* Leske, 1778, as rejected in (3) above (Name No. 24) ; (c) *Prospatangus* Lambert, 1902 (Name No. 25) ; (d) *Moera* Michelin, 1855 (Name No. 26).

(6) The under-mentioned specific names are hereby placed on the *Official List of Specific Names in Zoology* as Names Nos. 14 to 19 :—(a) *atropos* Lamarck, 1816, as published in the combination *Spatangus atropos* ; (b)

canaliferus Lamarck, 1816, as published in the combination *Spatangus canaliferus*; (c) *cordatus* Pennant, 1777, as published in the combination *Echinus cordatus*; (d) *purpureus* Müller (O.F.), 1776, as published in the combination *Spatagus* [sic] *purpureus*; (e) *studerii* Agassiz (J.L.R.), 1840, as published in the combination *Schizaster studerii*; (f) *unicolor* Leske, 1778, as published in the combination *Spatangus brissus* var. *unicolor*.

I.—THE STATEMENT OF THE CASE

The present is the sixth of the eight cases relating to disputed Echinoderm names submitted to the International Commission on Zoological Nomenclature by the late Dr. Th. Mortensen (*Universitetets Zoologisk Museum, Copenhagen*) under cover of a letter dated 17th November 1932. The arguments in regard to these cases are set out in a paper by Dr. Mortensen entitled "A Vote on some Echinoderm Names", which had been published a month earlier (Mortensen, October 1932, *Ann. Mag. nat. Hist.* (10)10 : 345—368). This application is concerned with the complex of problems centring around the well-known name *Spatangus*. The purpose of Dr. Mortensen's application was to secure from the International Commission decisions under its Plenary Powers which would provide a firm basis for the use of the following names attributed to the authors and dates shown below and with types species in harmony with accustomed usage:—*Spatangus* Gray, 1825, *Echinocardium* Gray, 1825, *Brissus* Gray, 1825, *Schizaster* Agassiz (J.L.R.), [1836], *Moiria* Agassiz (A.), 1872, and *Ova* Gray, 1825.

2. As has been explained in *Opinion* 206 (paragraphs 1 and 2) relating to the name *Diadema* Gray, 1825 (a case which was submitted jointly with the present case), an extensive canvas of the views of active workers in the Echinoderms had been undertaken by Dr. Mortensen before the present case was submitted to the International Commission. Of the thirty-nine (39) specialists who had taken part in this consultation, thirty-six (36) had voted in support of it, two (2) had not voted, and one (1)

had voted against it. The sole opponent (Lambert) had based his objection on the entirely untenable ground that the first author to revise the genus *Spatangus* had been not Gray, 1825, but the pre-Linnean non-binominal author Klein.¹ The names and addresses of the specialists who took part in this consultation have already been given in *Opinion* 206 (*Diadema*).

II.—THE SUBSEQUENT HISTORY OF THE CASE

3. In December 1932 the then Secretary (the late Dr. C. W. Stiles) reported Dr. Mortensen's application to the Commission in Circular Letter 220. On 20th December of that year, he wrote also to the Director of the United States Geological Survey, expressing the hope that arrangements might be made for these proposals to be examined by the palaeontologists of the Survey. On 19th January 1933, the Director replied, forwarding five comments by members of the staff, of which one was signed by two workers. These comments, in so far as they relate to the present case, were as follows :—

(a) *Comment by L. W. Stephenson and C. Wythe Cooke :*

I am in favour of codifying names concerning the strict validity of which there may be some question, if they have been in generally accepted use for long periods, but when it can be shown clearly that some other name has priority over a later more generally used name . . . is there not a danger of adding to, rather than subtracting from, the confusion? Will not some authors accept the rulings of the International Commission, while others will continue stoutly to maintain the validity of the names having priority? Furthermore, will not such rulings encourage a flood of demands for suspension of the Rules?

(b) *Comment by Lloyd G. Henbest :*

Dr. Mortensen's petition to conserve and restore certain Echinoderm names seems to be reasonable, except in the case of [Here are mentioned certain names with which this *Opinion* is not concerned.]

¹ Lambert's comment which was quoted by Mortensen (1932 : 360), was as follows :—"Non, car c'est Klein et non Gray qui a le premier divisé les *Spatangues* en plusieurs genres".

(c) *Comment (dated 6th January 1933) by John B. Reeside, Jr. :*

I see no particular objection to placing all of the names on the *List of established names*.

(d) *Comment by Edwin Kirke :*

I concur, except in the case of *Diadema* [see *Opinion 206*].

(e) *Comment (dated 16th January 1933) by W. P. Woodring :*

I am not familiar with the usage of these Echinoderm names, but as a general principle—other things being equal—I am in favour of special protection for names of long-standing usage that are being threatened.

4. In December 1933 Dr. Stiles reported to the Commission (in Circular Letter 245) the comments received earlier in that year from the palaeontologists of the Geological Survey. In March 1935 Dr. Stiles reported to the Commission (in Circular Letter 291) that he had received no further comments on this or the other proposals submitted by Dr. Mortensen and his colleagues, and suggested that these proposals should be considered by the Commission when it met at Lisbon in September of that year.

5. When the International Commission assembled at Lisbon in 1935, the Secretary was absent through ill-health and the documents relating to this case were not available. The Commission accordingly found itself unable to deal with the present application.

6. No further progress had been made with this application at the time when, following the election of Mr. Francis Hemming to be Secretary to the International Commission in succession to Dr. Stiles, the papers relating to this and other current cases were transferred to his care in 1938. On the re-organisation of the Secretariat, the applications submitted by Dr. Mortensen, other than that relating to the name *Diadema* Gray, 1825, were grouped together under the Registered Number Z.N.(S.)18. Later, however, it was judged more convenient to register each of these cases separately, the Number Z.N.(S.)317 being then allotted to the present case. It had not been found possible to advance the consideration of this case when in September 1939 the outbreak of war in Europe led to the evacuation of the records

of the Commission from London to the country as a precaution against the risk of destruction through air raids. The Secretariat in London was re-opened in 1942, and steps were immediately taken to establish the *Bulletin of Zoological Nomenclature* as a means for bringing to the attention of zoologists applications submitted to the International Commission for decision. Work was at once started on outstanding applications with a view to arranging for their publication in the newly established *Bulletin*. Unfortunately, however, it was not then possible to send the present case to the printer, for the paper of 1932 in which it had originally been submitted did not deal with the matter in sufficient detail, and the circumstances of the war made it impossible at that time to communicate with Dr. Mortensen in Denmark.

7. In the summer of 1946, the conclusion of hostilities in Europe restored opportunities for foreign travel, and Dr. Mortensen paid a visit to London, largely for the purpose of discussing with Mr. Hemming the arrangements to be made for the further consideration of this, and his other, applications by the International Commission. It was then agreed that, as a first step, Dr. Mortensen should prepare, and should furnish to Mr. Hemming as quickly as possible, separate applications of a somewhat fuller kind in regard to each of the outstanding cases which in 1932 he had submitted collectively in his paper "A Vote on some Echinoderm Names" (paragraph 1).

8. Dr. Mortensen's revised application in the present case was received on 14th June 1947. It was as follows:—

**On the status of the names "Spatangus" Gray, "Ova" Gray,
"Echinocaedium" Gray, "Schizaster" L. Agassiz, "Moiria"
A. Agassiz and "Brissus" Gray (Class Echinoidea, Order
Spatangoida)**

In December 1932, I submitted to the International Commission on Zoological Nomenclature a request that under their Plenary Powers they should validate certain generic names in the Phylum Echinoderma which, under the *Règles Internationales*, were either invalid or had, as their type species, other species than those universally attributed them. In each case I was of the opinion that greater confusion than uniformity

would clearly result from the strict application of the *Règles*. In this view I was supported by a large number of the leading specialists in this group. Full particulars of these cases were given in a paper entitled "A Vote on some Echinoderm Names" published in October 1932 (*Ann. Mag. nat. Hist.* (10) **10** : 345—368). Owing to the ill-health of the then Secretary of the International Commission, and for other reasons, no progress was made with any of these applications except that of *Luidia* Forbes, which has been settled by the Commission in *Opinion* 129. The need for decisions on these cases has increased in urgency in the interval elapsed since 1932, and I now ask the Commission to take each of these cases into immediate consideration.

Discussion of the case of the genera named above.

In the old literature (Klein, Leske, Lamarck), the name *Spatangus* is taken in a very wide sense, including forms now distributed in various families and orders. Lamarck, in his "Système des animaux sans vertèbres", 1801, p. 348, names under the genus *Spatangus* only one species, *Spatangus vulgaris*, which, as seen from the figures to which he refers (Klein, viz. Leske, *Additamenta*, tab. 48, figs. 4, 5; *Encyclop. Méth.* pl. 158, fig. 11; pl. 159, fig. 1), is the same as that which he names later on, 1816, in the "Hist. nat. des animaux sans vertèbres", p. 30, *Spatangus carinatus*—evidently forgetting that he had already in 1801 named it *S. vulgaris*. From the diagnosis of the genus and the "Nota", "On connaît beaucoup d'espèces dans l'état marin, et beaucoup d'autres dans l'état fossile, qui appartiennent à ce genre", it is evident that his genus *Spatangus* is meant to comprise all the Spatangoids known by that time. Nevertheless, as he names only one species, that one ought—it would seem—to have been made the type of the restricted genus *Spatangus*, which means again that the species now named *Brissus carinatus* ought, according to a strict interpretation of the Rule, to be the type of the genus *Spatangus*, and under the name of *S. vulgaris* Lamk., since the species, although figured by Leske, is not named by the latter author. This, however, has never been done by any author on Echinoids.

The first author really to establish a genus *Spatangus* in the modern sense is Gray, in his "Attempt to divide the Echinidae, or Sea Eggs, into Natural Families", 1825, *Ann. of Philos.* **26**. He has there established a family Spatangidae, with the three genera *Spatangus*, *Echinocardium* and *Brissus*. Under the first of these is named as only species *S. purpureus* Leske, t. 43, ff. 3, 5, viz., figures of O. Fr. Müller's *Spatagus purpureus*, *Zoologia Danica*, Tab. VI. Thus the genus has been properly established, with its genotype, and it has been accepted unanimously in this sense in the whole of the echinological literature, and in zoological literature in general, until recently changed by Lambert.

In 1902, Lambert ("Description des Echinides fossiles de la Province de Barcelone", *Mém. Soc. Geol. France*, **24**, p. 54) protests in a note against the correctness of Gray's decisions, maintaining that,

according to Klein's conception of the genus *Spatangus*, the type generally understood as *Spatangus* does not rightly belong there and he tentatively proposes to name these forms *Prospatangus*. In Lambert and Thiéry's "Essai de nomenclature raisonnée des Echinides", p. 459, this name *Prospatangus* is then definitely introduced instead of the hitherto unanimously used name *Spatangus*, this latter name now being transferred to *Spatangus canaliferus* Lamarck (*Hist. nat. des Animaux sans vertèbres*, 3, 1816, p. 31), the species hitherto generally known as *Schizaster canaliferus* (Lamarck).

There is no doubt that Gray, in giving O. Fr. Müller's *Spatagus purpureus* as the type (viz., the only named) species of the genus *Spatangus*, does not follow Klein, who lets his *Spatangus* comprise the species "insignem habentes lacunam in dorso . . . sulcosque in vertice" (ed. 1778, p. 27). But Gray was the first post-Linnean author to establish the genus *Spatangus* properly, and then we cannot now overthrow the century-old use of the name in this sense in order to re-establish the name in the sense of the pre-Linnean non-binominal author Klein, be his distinction of various genera of Echinoids ever so much beyond Linnaeus' confusion of all Echinoids in the single genus *Echinus*. That Blainville, in 1827 (*Dictionnaire d. Sciences nat.* Tome 50, p. 92), has *canaliferus* in his third group of the genus *Spatangus* cannot well, as seems to be the opinion of Lambert, do away with the fact of Gray having in 1825 made *purpureus* the type of the genus.

The species *canaliferus* Gray (Op. cit. 1825) made the type of his genus *Ova*; thus it is inadmissible now to make it the type of *Spatangus*. The genus *Ova* has not been recognised until recently H. L. Clark (Hawaiian a.o. Pacific Echini, Echinoneidae . . . Spatangidae, *Mem. Mus. Comp. Zool.* 46, 1917, p. 192) revived it, restricting it to the species *canaliferus*, which, from a taxonomic point of view, is justifiable. The type of the genus *Schizaster*, established by L. Agassiz, 1836, in his "Prodrome d'une Monographie des Radiaires", *Mém. Soc. Neuchâtel*, 1, p. 18, is the fossil (Tertiary) species *studerii* Agassiz. This is of the same type as the recent form *lacunosus*, which has always been designated as *Schizaster*, and even by Lambert and Thiéry in their "Essai de nomenclature raisonnée" is allowed to remain in the genus *Schizaster* (though erroneously referred to the subgenus *Brisaster*). Thus—leaving *canaliferus* aside as the type of its own genus, *Ova*—there is no discrepancy about the genus *Schizaster* and the genotype, *studerii* Agassiz.

The genus *Echinocardium** was established by Gray in his paper of 1825 (p. 430), with the species *atropos* Lamk. as the first named, which ought, accordingly, to have been accepted as the type of the genus. L. Agassiz in his "Prodromus" does not accept the name *Echino-*

* The name *Echinocardium* is first found in Leske's *Additamenta*, p. 73, as a translation of the Belgian "Egelhart" used by van Phelsum.

cardium, but creates a new genus, *Amphidetus*, under which *Echinocardium* is mentioned as a synonym; the species (*Spatangus*) *arcuarius* Goldfuss is the first named, the species *atropos* Lamarck being transferred to his new genus *Schizaster* as the first species named, the second being *S. studeri* Agassiz. In Agassiz and Desor's "Catalogue raisonné" the first species named under *Amphidetus* is *cordatus* (Pennant). In Desor's "Synopsis des Echinides fossiles", p. 406, the genus *Echinocardium* is again taken up, with *Amphidetus* as a synonym, the species *cordatum* (*Echinus cordatus*, Pennant, 1777. *British Zoology*, 4. p. 69) being the first named; the species *atropos* Lamk. had in the meantime been made the type of another genus, *Moera*, by Michelin ("Notice sur un nouveau genre à établir dans la famille des Spatangoides sous le nom de Moera", *Rev. et Magaz. de Zool.* 1855, p. 245). This name was changed by A. Agassiz (*Revision of Echini*, 1872, p. 146) into *Moira*, the name *Moera* being preoccupied. Since then the genera *Echinocardium* and *Moira* have been unanimously accepted in the sense adopted by Desor and Michelin, with the species *cordatus* and *atropos* respectively as the genotypes. Whether *Echinocardium* should, like the genus *Ova*, be confined to the species with the pores in the frontal ambulacrum in close double series, viz., *cordatum* (and *australe*, if the latter be maintained as a separate species) is a matter of no serious nomenclatorial consequence, the other species generally referred to *Echinocardium* would then have to be transferred to the revived genus *Amphidetus*.

Under the genus *Brissus*, Gray names as first species *ventricosus* Leske (tab. 26, fig. A), the following being *unicolor* Leske, *carinatus* Leske and *columbaris* Seba. The species *ventricosa* has, however, later on been transferred to the genus *Meoma*, established by Gray, 1851, with the West Indian species *grandis* as the type; the species *unicolor* is thus left as the type of the genus *Brissus*, about which fact there is no disagreement among the various authors.

All these names are so intricately connected that they cannot be dealt with separately.

In order to avoid the very great, almost inextricable confusion which would be the consequence of the strict application of the *Règles* in these cases, I ask the International Commission on Zoological Nomenclature, acting under the Plenary Power conferred upon them by the International Congress of Zoology, under suspension of the *Règles* to place the following names, with their genotypes, as specified, on the *Official List of Generic Names*:

Spatangus Gray, with genotype *Spatangus purpureus* O. Fr. Müller, 1788. (*Zoologia Danica* Tab. VI.).

Ova Gray, with genotype *Spatangus canaliferus* Lamarck. (*Hist. anim. sans Vertèbres*. 3. 1816, p. 31).

Schizaster L. Agassiz, with genotype *Schizaster studeri* L. Agassiz. (*Sismonda. Echinidi fossili del contado di Nizza*. 1843, p. 32. Tab. II. fig. 4).

Echinocardium Gray, with genotype *Echinus cordatus* Pennant (1777. *British Zoology*. 4. p. 69, Pl. XXXIV, Fig. 75).

Moira A. Agassiz, with genotype *Spatangus atropos* Lamarck (1816, *Hist. nat. des anim. s. Vertèbres*. 3, p. 32).

Brissus Gray, with genotype *Spatangus brissus* var. *unicolor* Leske. (1778. *Additamenta ad Kleinii Nat. Disp. Echinoid.* p. 248. Tab. XXVI. Fig. B, C.)

In my "Vote on some Echinoderm names" quoted above, this proposal was supported by : Bather, Brighton, A. H. Clark, H. L. Clark, Cottreau, Currie, Diakonov, Döderlein, Ekman, Faas, Fedotov, Fisher, Gislén, Goto, Gregory, Grieg, Hawkins, Hecker, Heding, Hérouard, v. Hofsten, Jackson, Klinghardt, Lieberkind, Mortensen, Nobre, Ohshima, Panning, Ravn, Reichensperger, Schmidt, Spencer, Stefanini, Valette, Vaney, Wanner, Yakovlev.

9. On 14th November 1947 a notice of the possible use by the International Commission on Zoological Nomenclature of its Plenary Powers in the present case was issued to the serial publications prescribed by the Ninth International Congress of Zoology, Monaco, 1913. The publication of this notice elicited no objections to the action proposed in this case.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

10. The present application was considered by the International Commission on Zoological Nomenclature at the Fourteenth Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 2030 hours. The following is an extract from the Official Record of the Proceedings of the International Commission (1) summarising the points made in the discussion at the foregoing meeting and (2) setting out the decision then reached by the Commission in regard to this case (Paris Session, 14th Meeting, Conclusion 36) (1950, *Bull. zool. Nomencl.* 4 : 522—529) :—

THE COMMISSION examined Commission File Z.N.(S.) 317, containing an application submitted by Dr. (now Commissioner) Th. Mortensen (Denmark) on his own behalf and on that of a large group of other specialists in the Class Echinoidea that the Commission should use their Plenary Powers in various ways to validate existing nomenclatorial practice in regard to six associated generic names in the foregoing Class, where, if the *Règles* were to be strictly applied, serious disturbance and consequential confusion would inevitably ensue. The generic names in question were : *Spatangus* Gray, 1825 ; *Ova* Gray, 1825 ; *Schizaster* Agassiz [1836] ; *Echinocardium* Gray, 1825 ; *Moira* Agassiz, 1827 ; *Brissus* Gray, 1825. The following is a summary of the principal points made by Dr. Mortensen in regard to each of the foregoing names :—

(1) *Spatangus* Gray, 1825 : This name had been used by the older authors (Klein, Leske) in a very wide sense under which it covered species now included in different families and even different Orders. Lamarck (1816) applied it to all the Spatangoids, of which, however, he cited only one by name, the new nominal species *Spatangus vulgaris* Lamarck (which had proved to be the same species as that now known as *Brissus carinatus*). If therefore Lamarck were treated as the author of the name *Spatangus*, that generic name would replace *Brissus* Gray and the species now known as *Brissus carinata* would have to be known as *Spatangus vulgaris* Lamarck. No one had, however, adopted this course. The true author of the generic name *Spatangus* in the modern sense was Gray (1825), who had placed in this genus only *Spatagus purpureus* Müller (O.F.), 1776. So regarded, the genus *Spatangus* Gray was monotypical with the above species as its type species. It was in this sense that the generic name *Spatangus* had been used by all subsequent specialists until in 1902 Lambert had advanced the view that this name should be used not in the sense in which it had been employed by Gray in 1825, but in the sense in which it had first been used by Klein ; that on this basis this generic name was not applicable to the species *Spatagus purpureus* Müller, which accordingly Lambert placed in a new genus to which he applied the name *Prospatangus*. Dr. Mortensen agreed that Gray had used the name *Spatangus* in a sense different from that of Klein. It would, however, in Dr. Mortensen's view, create the greatest confusion to abandon

the use of the name *Spatangus* for *purpureus* Müller and to apply that name, as suggested by Lambert, to *Spatangus canaliferus* Lamarck, 1816.

(2) *Ova* Gray, 1825 : The type species of this genus by monotypy was *Spatangus canaliferus* Lamarck, 1816. Accordingly under Lambert's view *Ova* Gray was an objective synonym of *Spatangus* as interpreted by that author. Dr. Mortensen asked that, when the Commission validated the name *Spatangus* as from Gray, 1825, and in consequence validated the designation of *Spatangus purpureus* Müller as the type species of that genus, they should also confirm the availability of *Ova* Gray, 1825, with *Spatangus canaliferus* Lamarck as its type species.

(3) *Schizaster* Agassiz [1836] : The type species of this genus was the fossil species *Schizaster studeri* Agassiz, 1840. This genus had been accepted even by Lambert and Thiéry notwithstanding their views on the generic position of *Spatangus canaliferus* Lamarck (see (1) above), a species which had formerly been referred to the genus *Schizaster*.

(4) *Echinocardium* Gray, 1825, and (5) *Moira* Agassiz, 1872 : Gray had placed in the genus *Echinocardium* three species, of which the first was *Spatangus atropos* Lamarck, 1816. Agassiz, the next author to deal with this subject, rejected the name *Echinocardium* Gray, sinking it as a synonym of a new generic name of his own (*Amphidetus*). At the same time Agassiz transferred *Spatangus atropos* Lamarck, 1816, to his new genus *Schizaster*, in which also (as shown in (3) above) he placed the new species *Schizaster studeri*. In their "Catalogue raisonnée" Agassiz and Desors cited *Echinus cordatus* Pennant, 1777, as the first species of the genus *Amphidetus* Agassiz, 1836 (which, as noted above, Agassiz had previously adopted in place of the earlier name *Echinocardium* Gray, 1825). In a later paper ("Synopsis des Echinides fossiles") Desors accepted *Echinocardium* Gray (sinking *Amphidetus* Agassiz as a synonym), citing *Echinus cordatus* Pennant as the first species. In the meantime Michelin had established the genus *Moera* Michelin, 1855, based upon *Spatangus atropos* Lamarck, which was accordingly treated by later authors as though it had been designated as the type species of the genus *Moera* Michelin. Later it was found that

this generic name was an invalid homonym, and Agassiz (1872) accordingly altered it to *Moira*. Since that date all specialists in the group had accepted the genera *Echinocardium* Gray, 1825, and *Moira* Agassiz, 1872, treating *Echinus cordatus* Pennant, 1777, as the type species of *Echinocardium* Gray, 1825, and *Spatangus atropos* Lamarck, 1816, as the type species of *Moira* Agassiz, 1872. Dr. Mortensen and his colleagues asked that this practice should be validated under the Plenary Powers.

(6) *Brissus* Gray, 1825 : Gray had established this genus for four nominal species. The trivial names of the first and second of these species were *ventricosus* Leske and *unicolor* Leske respectively. The species bearing the first of these names had later been transferred to the genus *Meoma* Gray, 1851. Thereafter, the species bearing the trivial name *unicolor* Leske had been treated by all authors as the type species of the genus *Brissus* Gray. Dr. Mortensen asked the Commission to validate this practice under their Plenary Powers.

In conclusion, Dr. Mortensen had expressed the view that the six generic names covered by the present application were so inextricably connected that they could not be treated separately. He accordingly asked the Commission to use their Plenary Powers to validate all the generic names in question, as from the authors and dates of publication, and with the type species, indicated in the application. This application had been one of the eight applications on which, before submitting it to the Commission (in 1932), Dr. Mortensen had consulted 38 leading specialists who were working on the group in various parts of the world. Of these specialists, 35 had voted in favour of the submission to the Commission of the present application, two (Bather ; Brighton) had not voted, while one only (Lambert) had voted against the course proposed.

THE ACTING PRESIDENT (MR. FRANCIS HEMMING) said that the present group of applications had been advertised but the advertisement had elicited no adverse comment.

IN DISCUSSION the view was expressed that it was evident that the strict application of the *Règles* would completely change the way in which these generic names would in future have to be used. Great disturbance in nomenclatorial practice would be involved and this would inevitably lead to widespread confusion, in view of the very extensive literature, extending far beyond the literature of systematic zoology, which had accumulated around such names as *Spatangus* and *Echinocardium*. For these reasons and, having regard also to the strong support for these proposals expressed all but unanimously by the leading workers in this field in both Hemispheres, it was generally agreed that the objects sought by the applicants should be met by the Commission. On the other hand, some of the arguments advanced in the application were not of a character which could be entertained by the Commission ; in particular, it was not possible either to ignore for the purposes of Articles 25 and 34 the uses of a generic name prior to a certain date (on the ground that the earlier authors had placed discordant material in the genus concerned), or, under Article 30 to accord any right to be accepted as the type species of a genus to a given species, on the ground only that it was the first of the species to have been cited, among others, under the name of the genus by its original author. In drawing up the conclusion of the Commission on these applications, it would be necessary to pay due regard to these considerations. Again in some cases (for example, in the case of the names *Schizaster* Agassiz, [1836], and *Moira* Agassiz, 1872 (as derived from the invalid homonym *Moera* Michelin, 1855), it was not clear from the application how the species there mentioned as type species of the genera concerned had come to be recognised as such, whether that process had been in accordance with the Rules specified in Article 30 and therefore whether the use of the Plenary Powers was necessary or not.

In further discussion it was agreed that the Plenary Powers should be used, where this was necessary, to secure the ends sought in the present application, but that, where it was doubtful (for any reason) whether the use of those powers was necessary to achieve the desired object, it should be expressly recorded that the Plenary Powers were used for that purpose only to the extent that might be necessary therefor. The Acting President, as Secretary to the Commission, was accordingly invited to examine

the present application from the foregoing point of view after the close of the present Session and, in the light of that examination, to draft the Conclusion on this matter in such a way as, in his opinion, would meet fully the objects set out in the application and also the points made in the discussion as recorded above.

THE COMMISSION agreed :—

(1) to use their Plenary Powers :—

(a) to suppress the undermentioned generic names :—

- (i) *Brissus* Müller, 1781 (Class Echinoidea)
- (ii) *Brissus* Modeer, 1793 (Class Echinoidea)
- (iii) *Brissus* Link, 1807 (Class Echinoidea)
- (iv) *Brissus* Oken, 1815 (Class Echinoidea)
- (v) *Brissus* Dahl, 1823 (emend. of *Bryssus* Dejean, 1821) (Class Insecta, Order Coleoptera)
- (vi) *Bryssus* Dejean, 1821 (Class Insecta, Order Coleoptera)
- (vii) *Brissus*, as used by any other author prior to the publication of *Brissus* Gray, 1825
- (viii) *Echinocardium* Leske, 1778, in so far as that name was published by that author as a generic name
- (ix) *Spatangus* Leske, 1778
- (x) *Spatangus* Modeer, 1793
- (xi) *Spatangus*, as used by any other author prior to the publication of *Spatangus* Gray, 1825 ;

(b) to validate the undermentioned generic names :—

- (i) *Brissus* Gray, 1825 (Class Echinoidea)

- (ii) *Echinocardium* Gray, 1825 (Class Echinoidea) in so far as this name requires to be validated by reason of the existence of the prior name *Echinocardium* Leske, 1778, suppressed, in so far as may be necessary, in (a) (viii) above ;
- (iii) *Spatangus* Gray, 1825 (Class Echinoidea) ;
- (c) to set aside all selections of type species for the undermentioned genera made prior to the present decision and to designate the species severally specified below to be the type species of the genera concerned :—
- (i) *Echinus cordatus* Pennant, 1777, to be the type species of the genus *Echinocardium* Gray, 1825, as validated, in so far as may be necessary, in (b)(ii) above ;
- (ii) *Schizaster studeri* Agassiz (L.), 1840, to be the type species of the genus *Schizaster* Agassiz (L.) [1836] ;
- (iii) *Spatangus brissus* var. *unicolor* Leske, 1778, to be the type species of the genus *Brissus* Gray, 1825, as validated in (b)(i) above ;
- (iv) *Spatangus purpureus* Müller (O.F.), 1776, to be the type species of the genus *Spatangus* Gray, 1825, as validated in (b)(iii) above ;
- (d) in so far as the use of the Plenary Powers may be necessary to secure that *Spatangus atropos* Lamarck, 1816, shall be the type species of the genus *Moiria* Agassiz (A.), 1872, to set aside all selections of type species made for that genus prior to the selection of the above species by Clark (H.L.), 1917 :
- (2) to place on record that the reputed generic name *Brissus* Leske, 1778 (Class Echinoidea), has no existence under the *Règles*, as interpreted in *Opinion* 183 (now, as agreed upon at the meeting noted in the margin¹ (*Paris Session, 6th Meeting, Conclusion* 12), to be incorporated in the *Règles*), having regard to the fact that this term

¹ Not reproduced.

was published by Leske in the nominative plural (as *Brissi*) instead of in the nominative singular as required by Article 8 ;

- (3) to place the names of the undermentioned genera of the Class Echinoidea (Order Spatangoida), with the type species severally specified below, on the *Official List of Generic Names in Zoology* :—

<i>Name of genus</i> (1)	<i>Type species of genus</i> <i>specified in Col. (1)</i> (2)
<i>Brissus</i> Gray, 1825 as validated in (1)(b)(i) above.	<i>Spatangus brissus</i> var. <i>unicolor</i> Leske, 1778 (type species designated under the Plenary Powers in (1)(c)(iii) above).
<i>Echinocardium</i> Gray, 1825, as validated in (1)(b)(ii) above.	<i>Echinus cordatus</i> Pennant, 1777 (type species designated under the Plenary Powers in (1)(c)(i) above).
<i>Moira</i> Agassiz (A.), 1872.	<i>Spatangus atropos</i> Lamarck, 1816 (type species designated under the Plenary Powers in (1)(d) above).
<i>Ova</i> Gray, 1825	<i>Spatangus canaliferus</i> Lamarck, 1816 (type species by monotypy).
<i>Schizaster</i> Agassiz (L.) [1836]	<i>Schizaster studeri</i> Agassiz (L.), 1840 (type species designated under the Plenary Powers in (1)(c)(ii) above).
<i>Spatangus</i> Gray, 1825, as validated in (1)(b)(iii) above.	<i>Spatangus purpureus</i> Müller (O.F.), 1776 (type species designated under the Plenary Powers in (1)(c)(iv) above).

- (4) to place the undermentioned generic names and reputed generic names on the *Official Index of Rejected and Invalid Generic Names in Zoology* :—

- (i) the eleven generic names suppressed under the Plenary Powers, as specified in (1)(a)(i) to (xi) above ;

- (ii) the reputed but non-existent generic name *Brissus* Leske, 1778, rejected under (2) above ;
 - (iii) *Prospatangus* Lambert, 1902 ;
 - (iv) *Moera* Michelin, 1855 ;
- (5) to place the undermentioned trivial names on the *Official List of Specific Trivial Names in Zoology* :—
- atropos* Lamarck, 1816 (as published in the binominal combination *Spatangus atropos*)
 - canaliferus* Lamarck, 1816 (as published in the binominal combination *Spatangus canaliferus*)
 - cordatus* Pennant, 1777 (as published in the binominal combination *Echinus cordatus*)
 - purpureus* Müller (O.F.), 1776 (as published in the binominal combination *Spatagus purpureus*)
 - studer* Agassiz (L.), 1840 (as published in the binominal combination *Schizaster studeri*)
 - unicolor* Leske, 1778 (as published as a sub-specific trivial name in the trinominal combination *Spatangus brissus* var. *unicolor*)
- (6) to render an *Opinion* recording the decisions specified in (1) to (5) above.

11. In accordance with the invitation addressed to him by the International Commission at its Paris Session—see the last paragraph of the Official Record of the discussion on this case, quoted on page 382 of the present *Opinion*—Mr. Hemming, as Secretary to the Commission, made a close examination, after the Paris Congress, of the problems involved in the present application with the object of determining precisely the limits within which action by the Commission under its Plenary Powers was necessary to give effect to the decision then taken by the Commission, namely to grant the relief sought in this case by Dr. Mortensen and his colleagues. In conformity with a request made by the Commission at the same time, the text of the decision (Conclusion 36) of the Commission in this case was drafted in the light of the Report so made by the Secretary. That Report, which was dated 22nd August 1949, was submitted to, and approved by, the International Commission by Postal Vote at the same time that

the draft of the Official Record of its Paris Proceedings (1950, *Bull. zool. Nomencl.* 4 : xiii—xv) was so submitted and approved. Mr. Hemming's Report, which was annexed to the Official Record of the Proceedings of the International Commission in regard to the present case (1950, *Bull. zool. Nomencl.* 4 : 529—530), was as follows :—

In accordance with the request of the Commission, I have re-examined the application submitted in this case for the purpose of determining how the objects set forth therein can be attained with the minimum use of the Plenary Powers, those powers being used only in respect of those purposes which can be achieved in no other way and being used conditionally "in so far as may be necessary" in cases where such use may be necessary to achieve the desired ends but that need is not clearly established. In the course of this re-examination, I have had the benefit of the advice of Dr. Mortensen. In addition, I have consulted a number of the books and papers cited in the present application. The conclusions which I have reached are as follows :—

(1) *Brissus* and *Spatangus* : If, as proposed, the generic names *Brissus* and *Spatangus* are to be made available in the sense in which they were respectively used by Gray in 1825, it will be necessary to use the Plenary Powers to suppress all prior uses of these names, and to validate these two names as from Gray, 1825. In view of the fact that Gray did not publish the names *Brissus* and *Spatangus* as new names and each, in order to acquire recognition under the *Règles*, requires the use by the Commission of their Plenary Powers, the same powers should be used to designate the type species of these genera. Quite apart from this consideration, the Plenary Powers would be necessary to ensure that the animal to which in 1778 Leske applied the trivial name *unicolor* should be the type species of this genus, for, even if that was the first of the originally included species to be selected by a later author to be the type species of this genus (which appears probable from, but is not clearly established in, the application submitted to the Commission), the type species of this genus would, under the *Règles* (Article 30, Rule (d)), be *Spatangus brissus* Leske, 1778, by absolute tautonymy, in view of the fact that the trivial name *unicolor* was published by Leske in the combination *Spatangus brissus* var *unicolor*. If it had not been for the consideration indicated above, it would not have been necessary to use the Plenary Powers to designate *Spatangus purpureus* Müller (O.F.), 1776, as the type species of the genus *Spatangus* Gray, 1825, for that nominal species (attributed, however, to Leske) was the sole species then cited (: 430) by Gray under the generic name *Spatangus* and would accordingly have been the type species by monotypy.

(3) *Echinocardium* Gray, 1825 : This name is usually treated as having been first published in 1825 by Gray (by whom it was doubtfully attributed to van Phelsum), but, as pointed out in the application, the term *Echinocardium* appears in Leske's *Additamenta* of 1778 as a

translation of the Belgian expression "Egelhart" used by van Phelsum. In order, therefore, to obviate the risk of a claim later being advanced that Leske used this word as a generic name and therefore that *Echinocardium* Gray, 1825, is an invalid homonym, the conditional use of the Plenary Powers under the formula "in so far as the use of the Plenary Powers may be necessary" is desirable to suppress the name *Echinocardium* as used (and in so far as it was used) by Leske in 1778 as a generic name and to validate, in so far as necessary, the generic name *Echinocardium* Gray, 1825. As regards the type species of this genus, the Plenary Powers are certainly necessary to secure the acceptance of *Echinus cordatus* Pennant, 1777, for that nominal species was not cited by Gray (: 430) when he published the generic name *Echinocardium*.

(4) *Schizaster* Agassiz (L.) [1836]: The name *Schizaster* Agassiz is itself an available name, but the Plenary Powers are needed to secure that *Schizaster studeri* Agassiz should be its type species, since although that name (binominal combination) appears in Agassiz's original description of the genus *Schizaster*, it was then only a *nomen nudum*, the trivial name in question not being published with an indication until 1840 (Agassiz, 1840, *Cat. Ect. Ech.* : 3).

(5) *Moira* Agassiz (A.), 1872: This name (which was published as a substitute for the invalid homonym *Moera* Michelin, 1855), is an available name; the species, *Spatangus atropos* Lamarck, 1816, which is commonly treated as its type species, is eligible for selection as such, having been one of the species included by Michelin in his genus *Moera*. Moreover, that species has certainly been selected as the type species of this genus, e.g. by Clark (H.L.) in 1917 (*Mem. Mus. comp. Zool.*, 46 : 195). It is not clear, however, either whether this was the first occasion on which this species was selected as the type species or whether any of the other originally included species had previously been so selected. In order to prevent any question being raised as to the validity of the selection of this species as the type species of this genus, it would be well, as in the case of the question of the availability of the generic name *Echinocardium* Gray, 1825 (discussed in (3) above), to use the Plenary Powers conditionally and "to such extent as may be necessary" to set aside all selections of type species for the genus *Moira* Agassiz, 1872, made prior to the selection of *Spatangus atropos* Lamarck as such by Clark (H.L.) in 1917.

(6) *Ova* Gray, 1825: This name, wrongly attributed by Gray (: 431) to van Phelsum, is an available name and the type species of the genus so named is *Spatangus canaliferus* Lamarck, 1816, by monotypy. The Plenary Powers are thus not required either to validate this name or to secure that the species accepted as the type species of this genus should in fact be its type species. This name was only included in the present application because the type species of this genus had been (erroneously) alleged by Lambert (1902) to be referable to the genus *Spatangus*, as interpreted by that author.

In the light of the foregoing conclusions, I have drafted the record of the Commission's decision in this case in the terms set forth in Conclusion 36 of the Minutes of the 14th Meeting of the Paris Session, at which it was discussed, those terms giving effect to the decision of the Commission to meet the objects sought by Commissioner Mortensen in the present application and at the same time involving, as desired by the Commission, the minimum use of the Plenary Powers consistent with securing the objects referred to above.

12. The following are the original references for the names which appear in the decision set out in paragraph 10 above:—

atropos, *Spatangus*, Lamarck, 1816, *Hist. nat. Anim. s. Vertèbr.*

3 : 32

Brissus Leske, 1778, *Addit. J. T. Klein Nat. Dispositio Echinodermat.* : 29

Brissus Müller (O.F.), 1781, *Zool. dan. (Danm. Norges Dyrs Hist.)* [Danish ed.] : 20

Brissus Modeer, 1793, *K. Vet. Acad. Nya Handl.*, Stockholm 14 : 14

Brissus Link, *Beschr. nat. Samml. Univ. Rostock* 4 : 24

Brissus Oken, 1815, *Lehrb. Naturgesch.* 3(1) : 354

Brissus (emend. of *Bryssus* Dejean, 1821) Dahl, *Col. u. Lepid.* : 61

Brissus Gray (J.E.), *Ann. Phil.* 26 : 431

Bryssus Dejean, 1821, *Cat. Coléopt.* : 96

canaliferus, *Spatangus*, Lamarck, 1816, *Hist. nat. Anim. s. Vertèbr.*

3 : 31

cordatus, *Echinus*, 1777, Pennant, *Brit. Zool.* (ed. 4) 4 : 58

Echinocardium Leske, 1778, *Addit. J. T. Klein Nat. Dispositio Echinodermat.* : 73

Echinocardium Gray, 1825, *Ann. Phil.* 26 : 430

Moera Michelin, 1855, *Rev. Mag. Zool.* (2)7 : 246

Moiria Agassiz (A.), 1872, *Ill. Cat. Mus. Harvard* 3(No. 7) : 146

Ova Gray (J.E.), 1825, *Ann. Phil.* 26 : 431

Prospatangus Lambert, 1902, *Mém. géol. Soc. France (Pal.)* 9 No. 3(Mem. 24) : 55

purpureus, *Spatagus* [sic], Müller (O.F.), 1776, *Zool. dan. Prodr.* : 236

Schizaster Agassiz (J.L.R.), 1836, *Mém. Soc. Sci. nat. Neuchatel* 1 : 185

Spatangus Leske, 1778, *Addit. J. T. Klein Nat. Dispositio Echinodermat.* : 230

Spatangus Modeer, 1793, *K. Vet. Acad. Nya Handl.*, Stockholm 14 : 14

Spatangus Gray (J.E.), 1825, *Ann. Phil.* 26 : 430

studerii, *Schizaster*, Agassiz (J.L.R.), 1840, *Cat. syst. Ectyp. Echinodermat. Foss. Mus. Neocom.* : 3
unicolor, *Spatangus brissus* var., Leske, 1778, *Addit. J. T. Klein Nat. Dispositio Echinodermat.* : 248, pl. 26, figs. B, C.

13. The genders of the following generic names, referred to in the decision quoted in paragraph 10 above, are :—

Brissus Gray, 1825 : masculine.

Echinocardium Gray, 1825 : neuter.

Spatangus Gray, 1825 : masculine.

Schizaster Agassiz (J.L.R.), [1836] ; masculine.

Moiria Agassiz (A.), 1872 : feminine.

Ova Gray, 1825 : feminine.

14. The decision taken in the present case was reported to, and approved by, the Section on Nomenclature of the Thirteenth International Congress of Zoology, Paris, 1948, at its Sixth Meeting held on 26th July 1948 (1950, *Bull. zool. Nomencl.* 5 : 117).

15. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

16. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

17. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression " trivial name " and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word " trivial " appearing also in the title of the *Official Index* reserved for recording rejected and

invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

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* Two Hundred and Nine (209) of the International Commission on Zoological Nomenclature.

DONE in London this Twenty-Third day of November, Nineteen Hundred and Fifty-Three.

*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 3. Part 29. Pp. 393—400

OPINION 210

Addition of the specific name *ciliaris* Philippi, 1837, as published in the combination *Asterias ciliaris* (Class Asteroidea) to the *Official List of Specific Names in Zoology* (*Opinion* supplementary to *Opinion* 129)



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN OPINION 210

A. The Officers of the Commission

- President* : Dr. Karl Jordan, Ph.D., F.R.S. (*British Museum (Natural History), Zoological Museum, Tring, Herts, England*).
- Vice-President* : Dr. James L. Peters (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).
- Secretary* : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

B. The Members of the Commission

Class 1949

- Senor Dr. Angel CABRERA (La Plata, Argentina).
- Mr. Francis HEMMING (London, England) (*Secretary to the Commission*).
- Dr. Karl JORDAN (British Museum (Natural History), Zoological Museum, Tring, Herts, England) (*President of the Commission*).
- Dr. Th. MORTENSEN (Universitetets Zoologisk Museum, Copenhagen, Denmark).
- Dr. Joseph PEARSON (Tasmanian Museum, Hobart, Tasmania, Australia).

Class 1952

- Senhor Dr. Afranio do AMARAL (S. Paulo, Brazil).
- Professor J. Chester BRADLEY (Cornell University, Ithaca, N.Y., U.S.A.).
- Professor Lodovico di CAPORACCO (University of Parma, Italy).
- Professor J. R. DYMOND (University of Toronto, Canada).
- Dr. James L. PETERS (Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.) (*Vice-President of the Commission*).
- Dr. Harold E. VOKES (United States Geological Survey, Washington, D.C., U.S.A.).

Class 1955

- Professor Dr. Hilbrand BOSCHMA (Rijksmuseum van Natuurlijke Historie, Leiden, The Netherlands).
- Dr. William Thomas CALMAN (Tayport, Fife, Scotland).
- Professor Teiso ESAKI (Kyushu University, Fukuoka, Japan).
- Professor Béla HANKÓ (University of Debrecen, Hungary).
- Dr. Tadeusz JACZEWSKI (Polish Zoological Museum, Warsaw, Poland).
- Dr. Norman R. STOLL (Rockefeller Institute for Medical Research, Princeton, New Jersey, U.S.A.).

C. Alternate Members of the Commission at the Session held in Paris in 1948

- Professor Enrique BELTRÁN (Instituto Mexicano de Recursos Naturales Renovables A.C., Mexico City, Mexico).
- Dr. Edward HINDLE (Zoological Society of London, London, England).
- Dr. Arturo Ricardo JORGE (Museu Bocage, Lisbon, Portugal).
- Professor Harold KIRBY (University of California, Berkeley, California, U.S.A.).
- Dr. Henning LEMCHE (Kgl. Veterinær- og Landbohøjskole, Zoologisk Laboratorium, Copenhagen, Denmark).
- Professor Kamel MANSOUR (King Fouad University, Cairo, Egypt).
- Professor Z. P. METCALF (North Carolina State College of Agriculture and Engineering, University of North Carolina, Raleigh, North Carolina, U.S.A.).
- Mr. N. D. RILEY (British Museum (Natural History), London, England).
- Professor Ragnar SPÄRCK (Universitetets Zoologisk Museum, Copenhagen, Denmark).
- Professor Victor van STRAELEN (Institut Royal des Sciences Naturelles de Belgique, Bruxelles, Belgium).
- Professor Robert L. USINGER (University of California, Berkeley, California, U.S.A.).

OPINION 210

ADDITION OF THE SPECIFIC NAME "CILIARIS"
PHILIPPI, 1837, AS PUBLISHED IN THE COMBINATION
"ASTERIAS CILIARIS" (CLASS ASTEROIDEA) TO
THE "OFFICIAL LIST OF SPECIFIC NAMES IN
ZOOLOGY" ("OPINION" SUPPLEMENTARY
TO "OPINION" 129)

RULING :—The specific name *ciliaris* Philippi, 1837, as published in the combination *Asterias ciliaris* (Class Asteroidea), is hereby added to the *Official List of Specific Names in Zoology*, as Name No. 20.

I.—THE STATEMENT OF THE CASE

The Ruling given in the present *Opinion* completes the decision reached by the International Commission on Zoological Nomenclature in *Opinion* 129 (1936, *Smithson. misc. Coll.* 73 (No. 8) : 32—33) on the third of the cases relating to disputed Echinoderm names submitted to the International Commission on Zoological Nomenclature by the late Dr. Th. Mortensen (*Universitetets Zoologisk Museum, Copenhagen*) under cover of a letter dated 17th November 1932. The arguments in regard to these cases are set out in a paper by Dr. Mortensen entitled "A Vote on some Echinoderm Names" (Mortensen, October 1932, *Ann. Mag. nat. Hist.* (10)10 : 345—368). The object of the application so submitted was to secure the suppression by the International Commission on Zoological Nomenclature, under its Plenary Powers, of the generic name *Bipinnaria* Sars, 1835 (*Beskr. Bergenske Kyst.* : 37), thereby providing a basis of availability for the name *Luidia* Forbes, 1839 (*Mem. werner. nat. Hist. Soc.* 8(1) : 123), a name which Dr. Mortensen stated had been unanimously adopted by later workers.

II.—THE SUBSEQUENT HISTORY OF THE CASE

2. The present application was reported to the Commission by the then Secretary (the late Dr. C. W. Stiles) in December 1932 in Circular Letter 230. In this Report Dr. Stiles advised in favour of the grant of this application. In March 1935 Dr. Stiles reported—in a further Circular Letter (C.L.295)—that his proposal had received a favourable reception from those Members of the Commission who had furnished statements of their views. Dr. Stiles suggested that this case should be brought to a decision by the Commission at the Session which it was then due to hold at Lisbon in September of that year. At the Lisbon Session this matter was considered at the Fourth Meeting of the Commission when it was decided to suppress the name *Bipinnaria* Sars, 1835, under the Plenary Powers (Lisbon Session, 4th Meeting, Conclusion 2) (1942, *Bull. zool. Nomencl.* 1 : 33). As already explained, the decision on this case was embodied in *Opinion* 129 and published in October 1936).

3. In May 1938 the documents relating to this and the seven other cases comprised in the application submitted by Dr. Mortensen in his paper entitled "A Vote on some Echinoderm Names" were transferred to the care of Mr. Francis Hemming who in 1936 had been elected Secretary to the International Commission in succession to Dr. Stiles. On receipt, these documents were given the Registered Number Z.N.(S.)18, but at various later dates most of these cases were given separate Registered Numbers in the Z.N.(S.) Series. The present case was, however, retained in the File Z.N.(S.)18, for it appeared at that time that the action required was complete.

4. At its Session held in Paris in 1948 the International Commission reviewed the stage reached as regards all the eight cases submitted by Dr. Mortensen in 1932 (Paris Session, 14th Meeting, Conclusion 32) (1950, *Bull. zool. Nomencl.* 4 : 509—514). As regards the present case, the Commission took note (l.c. : 512) that a decision had already been taken in *Opinion* 129 on the issue expressly submitted by Dr. Mortensen. At the same time the Acting President of the Paris Session (Mr. Francis Hemming, Secretary to the Commission) recalled that earlier during that Session the Commission had agreed (1950, *Bull. zool. Nomencl.* 4 : 270—271) to submit to the Thirteenth International Congress

of Zoology, then also sitting in Paris, a recommendation that it should establish an *Official List of Specific Trivial Names in Zoology* (parallel to the existing *Official List of Generic Names in Zoology*), on which should be inscribed, *inter alia*, the specific trivial name (now, as explained in paragraph 9 below, termed "specific name") of the type species of every genus, the name of which was placed on the *Official List of Generic Names*, provided that that name was an available name and was accepted by specialists in the group concerned as being the oldest such name for the species concerned and that, where the name in question, although an available name, was not considered to be the oldest such name for the species in question, the latter name and not the name of the type species should be placed upon the new *Official List*. Mr. Hemming suggested that, as the Commission was engaged in a review of Dr. Mortensen's application in regard to Echinoderm names with a view to completing as much as possible the action required thereon, it would be convenient if it were now to review its decision in the *Luidia* case from this point of view. Continuing, Mr. Hemming said that the type species of the genus *Luidia* Forbes, 1839, was, by monotypy, the nominal species *Luidia fragilissima* Forbes, 1839 (*Mem. werner. nat. Hist. Soc.* 8(1) : 123), and that the name *fragilissima* Forbes, 1839, was an available name in the sense that it was neither an objective junior homonym, nor an objective junior synonym, of some previously published name. Dr. Mortensen and his colleagues had, however, explained (Mortensen, 1932 : 350) that specialists were agreed in considering the name *Luidia fragilissima* Forbes, 1839, a subjective junior synonym of *Asterias ciliaris* Philippi, 1837 (*Arch. f. Naturgesch.* 3(1) : 194). Mr. Hemming accordingly suggested that, in conformity with the decision to which he had referred, the name *ciliaris* Philippi, 1837, as published in the combination *Asterias ciliaris*, should be placed upon the *Official List* now proposed to be established.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

5. The foregoing proposal was considered by the International Commission on Zoological Nomenclature at the Fourteenth

Meeting of its Paris Session held at the Sorbonne in the Amphithéâtre Louis-Liard on Monday, 26th July 1948 at 2030 hours. The following is an extract from the Official Record of the Proceedings of the International Commission at the foregoing meeting setting out the decision which it then reached in regard to the present matter (Paris Session, 14th Meeting, Conclusion 32) (1950, *Bull. zool. Nomencl.* 4 : 512—513) :—

THE COMMISSION :—

(1) took note :—

- (a) that a decision on the third of the applications submitted by Dr. Mortensen (Copenhagen) (relating to the names *Bipinnaria* Sars, 1835, and *Luidia* Forbes, 1839) (case (c)) had been taken at the Session held at Lisbon in 1935 and that the only action which now required to be taken was to place on the *Official List of Specific Trivial Names* the trivial name *ciliaris* Philippi, 1837 (as published in the binominal combination *Asterias ciliaris*), that being the oldest available trivial name of a species subjectively identified by specialists with the species bearing the trivial name *fragilissima* Forbes, 1839 (as published in the binominal combination *Luidia fragilissima*), the type species of the genus *Luidia* Forbes, 1839, placed on the *Official List of Generic Names in Zoology* in *Opinion* 129 rendered by the Commission in consequence of the decision referred to above ;

.

- (2) agreed, with reference to (1)(a) above, to place the trivial name *ciliaris* Philippi, 1837 (as published in the binominal combination *Asterias ciliaris*) on the *Official List of Specific Trivial Names in Zoology* ;

6. The original reference for the name placed on the *Official List of Specific Names in Zoology* under the foregoing decision is :—

ciliaris, *Asterias*, Philippi, 1837, *Arch. f. Naturgesch.* 3(1) : 194

7. The Ruling given in the present *Opinion* was concurred in by the sixteen (16) Commissioners and Alternate Commissioners present at the Paris Session of the International Commission, namely :—

Beltrán *vice* Cabrera ; Boschma ; Bradley ; di Caporiacco ; Hemming ; Hindle *vice* Jordan ; Jorge *vice* do Amaral ; Kirby *vice* Stoll ; Lemche *vice* Dymond ; Mansour *vice* Hankó ; Metcalf *vice* Peters ; Riley *vice* Calman ; Rode ; Spärck *vice* Mortensen ; van Straelen *vice* Richter ; Usinger *vice* Vokes.

8. The Ruling given in the present *Opinion* was dissented from by no Commissioner or Alternate Commissioner present at the Paris Session.

9. At the time of the adoption of the Ruling given in the present *Opinion*, the expression prescribed for the second portion of the binomen which constitutes the scientific name of a species was the expression "trivial name" and the *Official List* reserved for recording such names was styled the *Official List of Specific Trivial Names in Zoology*, the word "trivial" appearing also in the title of the *Official Index* reserved for recording rejected and invalid names of this category. Under a decision taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, the expression "specific name" was substituted for the expression "trivial name" and corresponding changes were made in the titles of the *Official List* and *Official Index* of such names (1953, *Copenhagen Decisions zool. Nomencl.* : 21). The changes in terminology so adopted have been incorporated in the Ruling given in the present *Opinion*.

10. 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.

11. The present *Opinion* shall be known as *Opinion Two Hundred and Ten* (210) of the International Commission on Zoological Nomenclature.

DONE in London this Twenty-Third day of November, Nineteen Hundred and Fifty-Three.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

NOTE TO SUBSCRIBERS

The present volume will be complete with the publication of two concluding Parts (Parts 30 and 31) which will appear shortly.

Part 30 will contain a *Direction* (*Direction 1*) relating to the placing on the appropriate *Official Lists* and *Official Indexes* of the scientific names and the titles of books dealt with in the first thirteen *Opinions* (*Opinions* 182—194) included in the present volume, all of which were rendered prior to the establishment of the *Lists* and *Indexes* concerned by the Thirteenth International Congress of Zoology, Paris, 1948. The foregoing *Direction* is issued under a General Directive given by the Paris Congress that previously issued *Opinions* should be completed in this way.

Part 31 will contain the Subject Index to the present Volume, together with the Title Page and Table of Contents.

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 3. Part 30. Pp. 401—416

DIRECTION 1

Addition to the *Official Lists* and *Official Indexes* of
certain scientific names and of the titles of certain books
dealt with in *Opinions* 182 to 194



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN DIRECTION 1

A. The Officers of the Commission

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

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

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

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

B. The Members of the Commission

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

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

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

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

Dr. Joseph Pearson (*Tasmania Museum, Hobart, Tasmania, Australia*) (27th July 1948)

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

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

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

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

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

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

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

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

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

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

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

Professor Béla Hankó (*Békéscsaba, 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)

DIRECTION 1

ADDITION TO THE " OFFICIAL LISTS " AND " OFFICIAL INDEXES " OF CERTAIN SCIENTIFIC NAMES AND OF THE TITLES OF CERTAIN BOOKS DEALT WITH IN " OPINIONS " 182 TO 194

RULING :—(1) The under-mentioned specific names dealt with in the *Opinions* severally specified below are hereby placed on the *Official List of Specific Names in Zoology* as Names Nos. 150 to 157 respectively :—

(a) *mantis* Linnaeus, 1758, as published in the combination *Cancer mantis* (specific name, by designation under the Plenary Powers, of *Squilla* Fabricius, 1787) (Class Crustacea, Order Stomatopoda) (*Opinion* 186) ; (b) *gigas* Burmeister, 1835, as published in the combination *Hypselopus gigas* (specific name type species of *Hypselopus* Burmeister, 1835) (Class Insecta, Order Hemiptera) (*Opinion* 187) (c) *arietans* Merrem (B), 1820, as published in the combination *Vipera (Echidna) arietans* (specific name of type species, by designation under the Plenary Powers, of *Bitis* Gray, 1842) (Class Reptilia, Order Squamata) (*Opinion* 188) ; (d) *noae* Linnaeus, 1758, as published in the combination *Arca noae* (specific name of type species, by designation under the Plenary Powers, of *Arca* Linnaeus, 1758) (Class Pelecypoda, Order Filibranchiata) (*Opinion* 189) ; (e) *alta* Williams (H.S.), 1890, as published in the combination *Rhynchonella alta* (Class Brachiopoda) (*Opinion* 190) ; (f) *laevigata* Bruguière, 1789, as published in the combination *Camerina laevigata* (specific name of type species of *Nummulites* Lamarck, 1801) (Class Rhizopoda, Order Foraminifera) (*Opinion* 192) ; (g) *praeceps* Parks, 1931, as published in the combination *Tetragonosaurus praeceps* (specific name of type species of *Procheneosaurus* Matthew, 1920) (Class Reptilia, Order Ornithischia) (*Opinion* 193) ; (h) *tibeticum* Griesbach, 1880, as published in the combination *Ophiceras tibeticum* (specific name of type species of *Ophiceras* Griesbach, 1880) (Class Cephalopoda, Order Ammonoidea) (*Opinion* 194).

(2) The under-mentioned generic names dealt with in the *Opinions* severally specified below are hereby placed on the *Official Index of Rejected and Invalid Generic Names in Zoology* as Names Nos. 139 to 149 respectively :—(a) the following names suppressed under the Plenary Powers for the purposes both of the Law of Priority and of the Law of Homonymy :—(i) *Squilla* Gronovius, 1760 ; (ii) *Squilla* Gronovius, 1764 ; (iii) *Squilla* Müller (O.F.), 1776 ; (iv) *Squilla* Scopoli, 1777 ; (v) *Squilla* Fabricius (O.), 1780 ; (vi) *Squilla* Fabricius (J.C.), 1781 ; (vii) *Squilla*, any other use of, prior to Fabricius, 1787 (*Opinion* 186) ; (b) *Cobra* Laurenti, 1768, as suppressed under the Plenary Powers for the purposes of the Law of Priority but not for those of the Law of Homonymy (*Opinion* 188) ; (c) *Camerina* Bruguière, 1789, as suppressed under the Plenary Powers for the purposes of the Law of Priority but not for those of the Law of Homonymy (*Opinion* 192) ; (d) *Tetragonosaurus* Parks, 1931 (not available, because not published in accordance with the provisions of Proviso (c) to Article 25) (*Opinion* 193) ; (e) *Ophiceras* Suess, 1965, as suppressed under the Plenary Powers for the purposes both of the Law of Priority and for those of the Law of Homonymy (*Opinion* 194).

(3) The under-mentioned reputed specific name is hereby placed on the *Official Index of Rejected and Invalid Specific Names in Zoology* as Name No. 76 :—*alta* Calvin [about 1878], in the combination *Rhynchonella alta* (a cheironym) (*Opinion* 190).

(4) The titles of the under-mentioned works are hereby placed as Works Nos. 21 to 23 respectively on the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* to the extent severally indicated below :—(a) Martini (F.H.W.) & Chemnitz (J.H.), 1769—1795, *Neues Systematisches Conchylien-Cabinet*, all new specific names and names of lower rank declared invalid (*Opinion* 184) ; (b) Bohadsch (J.B.), 1761, *De quibusdam Animalibus marinis*, suppressed for all purposes under the Plenary Powers (*Opinion* 185) ; (c) Bohadsch (J.B.), 1776,

De quibusdam Animalibus marinis (Leske's ed.), suppressed for all purposes under the Plenary Powers (*Opinion* 185).

I.—INTRODUCTORY

At the beginning of 1954 Mr. Francis Hemming, Secretary to the International Commission on Zoological Nomenclature, reviewed the action taken to give effect to the decisions in regard to further action respecting individual names adopted by the International Commission on Zoological Nomenclature at its Session held in Paris in 1948. The decisions in question included requests to the Secretary to the Commission that he:—(1) should investigate, and report upon twenty-eight individual cases of nomenclature, action on which was deferred for this purpose; (2) should prepare *Opinions* on the ninety individual cases on which decisions were taken in Paris; (3) should examine *Opinions* already rendered by the Commission with a view to the preparation of Schedules to be annexed to the *Règles* containing particulars of decisions taken by the Commission in those *Opinions* in regard to individual scientific names and the titles of individual books. By the end of 1953 the position as regards the foregoing matters was as follows:—(a) Preliminary Reports on the twenty-eight cases referred to in (1) above had been published in the *Bulletin of Zoological Nomenclature* (volume 7) in 1952; decisions had already been reached upon a number of these cases and it seemed likely that in 1954 the remainder would have reached a stage at which it would be possible to submit recommendations to the Commission. (b) The preparation of *Opinions* giving effect to the Paris decisions on individual cases had not been found possible so long as the Honorary Secretary was working in a spare-time capacity, but the situation in this matter was materially changed when in 1953 Mr. Hemming retired from the United Kingdom Civil Service and began to work for the Commission as a whole-time Honorary Secretary. In consequence, as soon as the work *Copenhagen Decisions on Zoological Nomenclature* had been delivered to the printer, it was possible in the autumn of 1953 for the Secretary to turn his attention to the preparation of the Paris *Opinions*, and by the

end of the year over seventy of these had been completed. (c) No action had, however, been taken by the end of 1953 to extract from the pre-1948 *Opinions* the material needed for the construction of the Schedules to the *Règles* referred to in (3) above. Mr. Hemming concluded, therefore, that it was desirable that a start should be made with the foregoing task.

2. The decisions taken by the Fourteenth International Congress of Zoology, Copenhagen, 1953, greatly to extend the system represented by *Official Lists* of available names and of available books and *Official Indexes* of rejected and invalid names and of rejected and invalid works (i.e., books and papers) somewhat modified the form of the Schedules needed to give effect to the decisions of the Paris (1948) Congress, for under the system inaugurated by the Paris Congress and greatly extended by the Copenhagen Congress every decision previously taken by the Commission would find its place in one or other of the *Official Lists* and *Official Indexes*. Accordingly, the task entrusted to the Secretary in this matter by the Paris Congress had become one of compiling proposals for the addition to the *Official Lists* and *Official Indexes* of entries recording decisions already taken by the Commission but not hitherto recorded in this manner.

3. At the end of the year 1953 the Commission had rendered two hundred and sixty-three (263) *Opinions* of which one hundred and ninety-four (194) had been published and the remainder—all of which embodied decisions taken in Paris in 1948—were in the press. The Rulings given in the Paris *Opinions* contained the requisite decisions for the placing of names and the titles of books on the various *Official Lists* and *Official Indexes*. In consequence, the review required was concerned only with *Opinions* 1—194. It was decided for the purpose of this review to divide these *Opinions* into two main groups: (a) *Opinions* 1 to 133, and (b) *Opinions* 134 to 194. The first one hundred and thirty-three *Opinions* were rendered at a time when it was not deemed essential to place on the *Official List of Generic Names in Zoology* every generic name which the Commission might validate or rule to be available, and when it was not customary for the Commission to cite in its *Opinions* full bibliographical references for the names dealt with. On the other hand the sixty-one *Opinions* numbered 134—194, which embodied the decisions taken by the Commission

at Lisbon in 1935 and the decisions taken after the Lisbon Session but before the Paris Session of 1948, had been compiled on principles broadly similar to those prescribed by the Paris Congress. It was evident therefore that the task of preparing proposals for the incorporation in the Schedules to be attached to the *Règles* of entries embodying the decisions taken in the first of these groups of *Opinions* would be much more laborious than that involved in relation to the second group. It was deemed desirable therefore that the prescribed review should start with the second of these groups. It was further decided that for the purpose of this review the *Opinions* concerned should be examined in the reverse order to that in which they had been published. By this means a solid block of decisions, each embodying rulings on all the matters prescribed by the Congress would be built up which would be coterminous with the decisions taken in Paris in 1948, the *Opinions* on which had been prepared in accordance with the instructions given by that Congress. The desirability of conducting the required review in the foregoing order was enhanced by the fact that the post-Lisbon *Opinions* (*Opinions* 182—194) formed part of volume 3 of the work *Opinions and Declarations* which with the publication of the first two instalments of the Paris *Opinions*, would be complete and would be in need of a Subject Index—which could not be prepared in a complete form until after the review of *Opinions* 182—194 prescribed by the Congress.

II.—THE SUBJECT MATTER OF THE PRESENT “ DIRECTION ”

4. On 27th January 1954 Mr. Hemming submitted to the International Commission a memorandum in which he recalled the decisions taken by the Paris Congress in regard to the construction of Schedules—for attachment to the *Règles*—giving particulars of decisions on individual names and on individual books announced in *Opinions* previously rendered by the Commission and explained the procedure which it was proposed should be adopted for carrying out the prescribed review of the *Opinions* in question. With this memorandum Mr. Hemming

submitted for the consideration of the Commission the proposals which in the light of his review he had prepared in relation to *Opinions* 182—194 (the post-Lisbon, but pre-Paris *Opinions*). These proposals were prepared in the form of a Draft Direction which, for the convenience of Commissioners was arranged by reference to the *Opinions* in which decisions had been taken on the names concerned. It was intended, however, that, when a decision had been given by the Commission, the subject matter of that decision should be regrouped so as to bring together the decisions taken in regard to the placing of additional entries on each of the *Official Lists* and *Official Indexes* concerned, a note being added, however, against each name of the *Opinion* to which it was related. The Draft Direction so submitted was as follows:—

DRAFT DIRECTION

Addition to the "Official Lists" and "Official Indexes" of certain scientific names and of the titles of certain books dealt with in "Opinions" 182 to 194

The following scientific names and titles of books dealt with in *Opinions* 182 to 194 are hereby added to the *Official List* or *Official Index* noted, below, in accordance with the General Directive issued to the International Commission by the Thirteenth International Congress of Zoology, Paris, 1948, that it should insert in the foregoing *Lists* and *Indexes* entries relating to generic and specific names and to books dealt with in *Opinions* rendered prior to the Paris Session:—

OPINION 182: (1) The following entry is to be made in the *Official Index of Rejected and Invalid Generic Names in Zoology: Clymenia* Münster, 1832, terms for subdivisions published in, by GümbeL (C.W.) in 1863 not available as from that date as subgeneric names. The following entry is to be made in the *Official List of Generic Names in Zoology: Clymenia* Münster, 1832, terms published in the nominative plural by GümbeL (C.W.) for subdivisions of, to rank for priority as from their publication in the nominative singular by Hyatt in 1883, and the latter author is to be treated as the author of these names.¹

OPINION 184: The following entry is to be made in the *Official Index of Rejected and Invalid Works in Zoological Nomenclature: Martini* (F.H.W.) and Chemnitz (J.H.), 1769—1795, *Neues Systematisches Conchylien Cabinet*, Volumes 1—11, all new specific names and names of lower rank.²

¹ See Note 1. (Reproduced in para. 5.)

² See Note 3. (Reproduced in para. 5.)

OPINION 185 : The following entry is to be made in the *Official Index of Rejected and Invalid Works in Zoological Nomenclature* : Bohadsch (J.B.), 1761, *De quibusdam Animalibus marinis*.

OPINION 186 : (1) The following entries are to be made in the *Official Index of Rejected and Invalid Generic Names in Zoology* :— (a) *Squilla* Gronovius, 1760 ; (b) *Squilla* Müller (O.F.), 1776 ; (c) *Squilla* Scopoli, 1777 ; (d) *Squilla* Fabricius (O.), 1780 ; (e) *Squilla*, any other use of, prior to Fabricius (J.C.), 1787. (2) The following name is to be added to the *Official List of Specific Names in Zoology* : *mantis* Linnaeus, 1758, as published in the combination *Cancer mantis*.

OPINION 187 : The following entry is to be made in the *Official List of Specific Names in Zoology* : *gigas* Burmeister, 1835, as published in the combination *Hypselopus gigas*.

OPINION 188 : (1) The following entry is to be made in the *Official Index of Rejected and Invalid Generic Names in Zoology* : *Cobra* Laurenti, 1768. (2) The following entry is to be made in the *Official List of Specific Names in Zoology* : *arietans* Merrem (B.), 1820 as published in the combination *Vipera (Echidna) arietans*.

OPINION 189 : The following entry is to be made in the *Official List of Specific Names in Zoology* : *noae* Linnaeus, 1758, as published in the combination *Arca noae*.

OPINION 190 : (1) The following entry is to be made in the *Official Index of Rejected and Invalid Specific Names in Zoology* : *alta* Calvin, [about 1878], in the combination *Rhynchonella alta*, a cheironym. (2) The following entry is to be made in the *Official List of Specific Names in Zoology* : *alta* Williams (H.S.), 1890, as published in the combination *Rhynchonella alta*.³

OPINION 192 : (1) The following entry is to be made in the *Official Index of Rejected and Invalid Generic Names in Zoology* : *Camerina* Bruguière, 1789. (2) The following entry is to be made in the *Official List of Specific Names in Zoology* : *laevigata* Bruguière, 1789, as published in the combination *Camerina laevigata*.

OPINION 193 : (1) The following entry is to be made in the *Official List of Specific Names in Zoology* : *praeceps* Parks, 1931, as published in the combination *Tetragonosaurus praeceps* Parks, 1931. (2) The following entry is to be made in the *Official Index of Rejected and Invalid Generic Names in Zoology* : *Tetragonosaurus* Parks, 1931.

OPINION 194 : (1) The following entry is to be made in the *Official Index of Rejected and Invalid Generic Names in Zoology* : *Ophiceras*

³ See Note 4. (Reproduced in para. 5.)

Suess, 1865. (2) The following entry is to be made in the *Official List of Specific Names in Zoology*: *tibeticum* Griesbach, 1880, as published in the combination *Ophiceras tibeticum*.

5. The following explanatory notes were submitted to the Commission at the same time as the Draft Direction reproduced in the immediately preceding paragraph. The purpose of these notes was twofold: (1) to explain why no action was required on certain of the *Opinions* numbered 182 to 194; (2) to draw attention to the provisional character of, or to defects in, certain of the *Opinions* concerned which called for further decisions from the Commission before the names dealt with in those *Opinions* could be placed on the appropriate *Official List* or *Official Index*:—

Notes annexed to Draft Direction

Note 1: *Opinion* 182 is incomplete in the sense that, although it deals, in part, with the generic name *Clymenia* Münster, 1832, it contains no Ruling on the question of the availability of that name. At Paris in 1948 the Commission agreed (1950, *Bull. zool. Nomencl.* 4: 355), on the suggestion of Professor H. Boschma, that the Rulings given in *Opinions* should cover the whole field and that steps should be taken to fill gaps in existing *Opinions* arising from the foregoing cause. A proposal regarding the name *Clymenia* Münster, 1832, will therefore, be submitted as soon as possible (File Z.N.(S.) 799).

Note 2: No action in the present context is required in regard to *Opinion* 183, which is concerned entirely with a question of the interpretation of the *Règles*.

Note 3: No proposal is here submitted in regard to the status of new generic names published in volumes 1—11 of Martini and Chemnitz, *Neues systematisches Conchylien-Cabinet*, for the Ruling given in *Opinion* 184 was expressly stated to be an interim Ruling, pending a decision being taken as to the interpretation of Proviso (b) to Article 25. A decision on this latter question was taken in 1948, and it will be necessary, therefore, to review the question of the status of new generic names published in the foregoing work. A proposal on this subject will, therefore, be submitted as soon as possible (File Z.N.(S.) 800).

Note 4: As in the case of *Opinion* 182 (see *Note 1* above), the Ruling given in *Opinion* 190 is incomplete, for it contains no decision on the status of the name *Rhynchonella* as from the date on which that name was first validly published (by Fischer de Waldheim in 1809). A

proposal on this subject will be submitted as soon as possible (File Z.N.(S.) 801).

Note 5: No action in the present context is required in regard to *Opinion* 191, which is concerned entirely with an interpretation of Article 25, which will appear in the revised text of the *Règles*.

III.—THE DECISION OF THE INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

6. *Issue of Voting Paper V.P.(54)5*: Concurrently with the submission of the Draft Direction and the Explanatory Notes reproduced respectively in paragraphs 4 and 5 above, a Call for a Vote, numbered Voting Paper V.P.(54)5, was issued under the One-Month Rule. In this Voting Paper, each Member of the Commission was asked (1) to state whether he agreed "that, in conformity with the General Directive relating to the recording on the various *Official Lists* and *Official Indexes* of decisions in regard to particular names and particular books taken by the Commission prior to 1948, issued to the International Commission by the Thirteenth International Congress of Zoology, Paris, 1948, the entries recording such decisions taken in *Opinions* 182 to 194 specified in the Draft Direction annexed to the Statement submitted by the Secretary simultaneously with the present Voting Paper, should be made, as proposed, in the *Official Lists* and *Official Indexes* concerned", and, (2) if he did not so agree as regards any given item, to indicate the item concerned.

7. *Modification of the proposals submitted in respect of Opinions 182 and 186*: On 9th February 1954 Commissioner L. B. Holthuis addressed a letter to the Secretary containing suggestions for modifying the action proposed in Voting Paper V.P.(54)5 for the codification of the Rulings given in *Opinions* 182 (*Clymenia* Münster) and 186 (*Squilla* Fabricius). Consideration of Commissioner Holthuis' letter led the Secretary on 16th February to execute the following Minute modifying, as shown below, the proposals which he had submitted in respect of the foregoing *Opinions*. On the same day the decision so taken was notified by the Secretary to Commissioner Holthuis.

Voting Paper V.P.(54)5 : Supplementary Minute by the Secretary

Correspondence which I have had with Commissioner Holthuis since the issue of Voting Paper V.P.(54)5 has led me to the conclusion that it would be better temporarily to defer the codification of the Ruling given in *Opinion* 182 (*Clymenia*). In addition, Commissioner Holthuis has suggested—and I agree—that it would promote clarity if a slight amplification were to be made in the measures proposed for the codification of the Ruling given in *Opinion* 186 (*Squilla*). The suggestions so made and the action proposed are explained in the following paragraphs.

(1) *Opinion* 182 : It has been suggested that it would be more convenient (a) to substitute on the *Official Index of Rejected and Invalid Generic Names in Zoology* a list of the rejected Gmbel names in place of the suggested general entry relating to these names, and (b) to defer making an entry on the *Official List of Generic Names in Zoology* until, as suggested in Note 1 submitted with the Draft Direction, a decision has been taken on the proposal, foreshadowed in that Note, for the addition of this generic name to the foregoing *Official List*. I agree that this would be a more satisfactory procedure, and I accordingly hereby withdraw the proposal submitted in Voting Paper V.P.(54)5 relating to *Opinion* 182.

(2) *Opinion* 186 : It has been pointed out that it was only because of the then existing provisions of Proviso (a) to Article 25 of the *Rgles* that in this *Opinion* the name *Squilla* Fabricius, 1787, was preferred to the name *Squilla* Fabricius, 1781, a name at that time invalid because not published with an "indication". Through an oversight on my part, the name *Squilla* Fabricius, 1781, was not expressly cited for addition to the *Official Index of Rejected and Invalid Generic Names in Zoology* in the proposal submitted in Voting Paper V.P.(54)5, though it is, in fact, covered by the general proposal for the addition to that *Index* of the entry "*Squilla*, any other use of, prior to Fabricius (J.C.), 1787". It has been suggested that, since all known uses of the name *Squilla* Fabricius prior to Fabricius, 1787, are to be listed separately in this *Index*, it would be preferable if there were to be a separate entry for *Squilla* Fabricius, 1781. I fully agree with Commissioner Holthuis' suggestion on this point, for, since under the decision taken by the Commission in this *Opinion*, all uses of the generic name *Squilla* prior to *Squilla* Fabricius, 1787, have been suppressed under the Plenary Powers, the separate enumeration of *Squilla* Fabricius, 1781, adds nothing which is not comprised in that decision but on the other hand has the advantage that it forestalls any possible misunderstanding of that decision. An exactly parallel situation arises in connection with another pre-1787 usage of the name *Squilla*, namely that by Gronovius in 1764 in volume 2 of his *Zoophylacium gronovianum*, a usage which has attracted a certain amount of attention through its

having been cited by Sherborn (1902, *Index Anim.*, Pars prima : 926). It is my intention therefore, when preparing the Ruling required to give effect to the present *Direction*, to include, as a matter of drafting, a specific reference both to *Squilla* Gronovius, 1764, and to *Squilla* Fabricius, 1781.

8. The prescribed Voting Period : As the foregoing Voting Paper was issued under the One-Month Rule, the prescribed Voting Period closed on 5th March 1954.

9. Particulars of the Voting on Voting Paper V.P.(54)5 : The state of the voting on Voting Paper V.P.(54)5 at the close of the prescribed Voting Period was as follows :—

(a) *Affirmative Votes had been given by the following nineteen (19) Commissioners (arranged in the order in which Votes were received) :*

Riley ; Lemche ; Vokes ; Hering ; Holthuis⁴ ;
Dymond ; Hankó ; Cabrera ; Sylvester-Bradley ;
Pearson ; Hemming ; Esaki ; Boschma⁵ ; Bonnet ;
do Amaral ; Bradley (J.C.) ; Stoll ; Mertens ;
Jaczewski.

(b) *Negative Votes :*

None ;

(c) No Commissioner failed to register his Vote on Voting Paper V.P.(54)5.

10. Declaration of Result of Vote : On 9th March 1954, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P.(54)5, signed a Certificate that the Votes cast were as set out in paragraph

⁴ See paragraph 7.

⁵ In his Voting Paper dated 24th February 1954, Commissioner Boschma associated himself with the comment on the proposal relating to *Opinion* 182 previously made by Commissioner Holthuis.

9 above and declaring that, subject to the modifications specified in paragraph 7 above, 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. On 9th March 1954, Mr. Hemming prepared the Ruling given in the present *Direction* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P.(54)5, subject to the modifications as respects *Opinions* 182 and 186 specified in the Minute by the Secretary, dated 16th February 1954, reproduced in paragraph 7 of the present *Direction*.

12. The following are the original references for the names which appear in the Ruling given in the present *Direction* :—

- alta*, *Rhynchonella*, Williams (H.S.), 1890, *Bull. geol. Soc. Amer.* **1** : 495, pl. 12, figs. 5—7
arietans, *Vipera (Echidna)*, Merrem (B.), 1820, *Tent. Syst. Amph.* : 152
Camerina Bruguière, 1789, *Ency. méth. (Vers)* (1) : xvi
Cobra Laurenti, 1768, *Specimen medicum* : 103
gigas, *Hypselopus*, Burmeister, 1835, *Handb. Ent.* **2**(1) : 329
laevigata, *Camerina*, Bruguière, 1789, *Ency. méth. (Vers)* (2) : 399
mantis, *Cancer*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 633
noae, *Arca*, Linnaeus, 1758, *Syst. Nat.* (ed. 10) **1** : 693
Ophiceras Suess, 1865, *Anz. Akad. Wiss. Wien* **2** (No. 17) : 112
praeceps, *Tetragonosaurus*, Parks, 1931, *Univ. Toronto Stud.* (Geol. Ser.) **31** : 1—11, pl. 1—3
Squilla Gronovius, 1760, *Acta helv.* **4** : 38
Squilla Gronovius, 1764, *Zoophylac. gronov.* **2** : 232
Squilla Müller (O.F.), 1776, *Zool. dan. Prodr.* : 197
Squilla Scopoli, 1777, *Introd. Hist. nat.* : 405
Squilla Fabricius (O.), 1780, *Fauna groenl.* : 248
Squilla Fabricius (J.C.), 1781, *Spec. Ins.* **1** : 514
Tetragonosaurus Parks, 1931, *Univ. Toronto Stud.* (Geol. Ser.) **31** : 1—11
tibeticum, *Ophiceras*, Griesbach, 1880, *Rec. geol. Surv. Ind.* **13** : 109, pl. 3, fig. 4

13. The present *Direction* is hereby rendered in the name of the International Commission on Zoological Nomenclature by the undersigned Francis Hemming, Secretary to the said Commission, in virtue of all and every the powers conferred upon him in that behalf.

14. The present *Direction* shall be known as *Direction One (1)* of the International Commission on Zoological Nomenclature.

DONE in London, this Ninth day of March, Nineteen Hundred and Fifty-Four.

*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 3. Part 31. Pp. 417—426

DIRECTION 3

Determination of the gender to be attributed to certain generic names placed on the *Official List of Generic Names in Zoology* by the Rulings given in *Opinions* 182 to 194



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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

COMPOSITION AT THE TIME OF THE ADOPTION OF THE RULING GIVEN IN DIRECTION 3

A. The Officers of the Commission

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

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

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

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

B. The Members of the Commission

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

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

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

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

Dr. Joseph Pearson (*Tasmania Museum, Hobart, Tasmania, Australia*) (27th July 1948)

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

DIRECTION 3

DETERMINATION OF THE GENDER TO BE ATTRIBUTED TO CERTAIN GENERIC NAMES PLACED ON THE "OFFICIAL LIST OF GENERIC NAMES IN ZOOLOGY" BY THE RULINGS GIVEN IN "OPINIONS" 182 TO 194

RULING : (1) The gender to be attributed to each of the under-mentioned generic names dealt with in the *Opinions* severally noted below is hereby determined as being the masculine gender :—(a) *Hypselopus* Burmeister, 1835 (*Opinion* 187); (b) *Nummulites* Lamarck, 1801 (*Opinion* 192); (c) *Procheneosaurus* Matthew, 1920 (*Opinion* 193).

(2) The gender to be attributed to each of the under-mentioned generic names dealt with in the *Opinions* severally noted below is hereby determined as being the feminine gender :—(a) *Squilla* Fabricius, 1787 (*Opinion* 186); (b) *Bitis* Gray, 1842 (*Opinion* 188); (c) *Arca* Linnaeus, 1758 (*Opinion* 189).

(3) The gender to be attributed to the generic name *Ophiceras* Griesbach, 1880, dealt with in *Opinion* 194 is hereby determined as being the neuter gender.

I.—THE SUBJECT MATTER OF THE PRESENT "DIRECTION"

On 12th May 1954 Mr. Francis Hemming, as Secretary, submitted to the International Commission the following proposals relating to the gender to be attributed to certain generic names placed on the *Official List of Generic Names in Zoology* by Rulings given in *Opinions* 182 to 194, decisions on this question being needed in order to complete the review of those of the *Opinions* included in volume 3 of the present series which were rendered before July 1948, in accordance with the General Directive relating to the review by the Commission of *Opinions*

rendered by it prior to the foregoing date, given to it by the Thirteenth International Congress of Zoology, Paris, 1948. The present *Direction* completes the review by the Commission of the Rulings given in the foregoing *Opinions*. The previous series of decisions has been embodied in *Direction 1*.¹

Gender to be attributed to seven generic names placed on the " Official List of Generic Names in Zoology " in " Opinions " 186 to 189 and 192 to 194

By FRANCIS HEMMING, C.M.G., C.B.E.,
Secretary to the International Commission on Zoological Nomenclature

In submitting the Index prepared for Volume 3 of the work *Opinions and Declarations*, Miss Joan Kelley, B.Sc., the Commission's Indexer, has drawn my attention to the fact that so far the Commission has not assigned a gender to the following seven generic names placed on the *Official List of Generic Names in Zoology* in *Opinions* 187 to 189 and 192 to 194 :—(1) *Squilla* Fabricius, 1787 (*Opinion* 186); (2) *Hypselopus* Burmeister, 1835 (*Opinion* 187); (3) *Bitis* Gray, 1842 (*Opinion* 188); (4) *Arca* Linnaeus, 1758 (*Opinion* 189); (5) *Nummulites* Lamarck, 1801 (*Opinion* 192); (6) *Procheneosaurus* Matthew, 1920 (*Opinion* 193); (7) *Ophiceras* Griesbach, 1880 (*Opinion* 194).

2. Proposals in regard to the foregoing matter should have been included in the submission made with Voting Paper V.P.(54) 5² issued on 5th February last, and I regret that through an oversight this was not done. It is important that this omission should now be rectified as quickly as possible, since until this is done, it will not be possible to publish the Index and Title Page for volume 3.

3. The words of which the generic names enumerated in paragraph 1 above consist are either genuine Latin words or barbarous words in Latin form or arbitrary combinations of letters constituting synthetic neo-Latin words. In no case is there any doubt as to the gender to be attributed to the word concerned, though in the case of the word *Nummulites* there have been differences in practice among specialists in the group concerned. In this case, I have consulted (1) Dr. L. R. Cox (*British Museum (Natural History) London*), (2) through Dr. Cox, Dr. W. A. Macfadyen, the well-known authority on the Foraminifera (who with E. J. A. Kenny published in 1934 a paper on the gender of names in this group) and (3) Professor L. R. Grensted, the noted

¹ *Direction 1* (here referred to) has been published as Part 30 of the present volume (: 401—416). *Direction 2*, which has been published as Part 52 of volume 2 (: 613—628) of the present work, contains the first instalment of the decisions taken by the Commission, when reviewing the Rulings given in the *Opinions* included in that volume.

² The Voting Paper here referred to is the Voting Paper on which the decision later embodied in *Direction 1* was taken by the Commission.

scholar, who for some years has kindly acted as Honorary Classical Adviser to the Commission. It will be seen from the letters received from these authorities (reproduced in the Annexe attached) that all are agreed that the correct gender for the foregoing name is masculine, and further are of the opinion that adherence to this gender is desirable.

4. The proposal now submitted is that the Commission should give a Ruling that the genders to be accepted for the generic names specified in paragraph 1 above, being names which have been placed on the *Official List* in the *Opinions* there cited, are as follows:—

- (1) *Masculine gender*:—*Hypselopus* Burmeister, 1835; *Nummulites* Lamarck, 1801; *Procheneosaurus* Matthew, 1920;
- (2) *Feminine gender*:—*Squilla* Fabricius, 1787; *Bitis* Gray, 1842; *Arca* Linnaeus, 1758;
- (3) *Neuter gender*: *Ophiceras* Griesbach, 1880.

ANNEXE

Question of the gender of the name “*Nummulites*” Lamarck, 1801

DOCUMENT 1

Advice received from Dr. L. R. COX

(letter dated 29th April 1954)

This seems to be rather a controversial question. Lamarck, when founding the genus, treated the name as feminine, as did also d'Archiac in his classical monograph on the *Nummulites* (1850), and a number of later workers, including P. Rozlozsnik in his “*Einleitung in das Studium der Nummulinern und Assilinen*” (1927). On the other hand most modern authors seem to treat the name as masculine, and I should regard it as masculine, as it must be derived from the masculine word “*nummulus*” with the addition of “*ιτης*”, meaning “of the nature of”. W. A. Macfadyen has called my attention to a paper by himself and E. J. A. Kenny in the *Journ. R. Microsc. Soc.*, vol. 54 (1934), pp. 177—181, entitled “On the correct writing in form and gender of the names of the Foraminifera”, in which it is maintained that all names ending in “*ites*” should be regarded as masculine, but I think that this is very controversial and other authors have not agreed with it. In one recent paper on *Nummulites* which I have consulted successive specific names have masculine and feminine terminations respectively, so that the author seems to have adopted an attitude of impartiality. This seems to be a case in which the Commission should use its dictatorial powers, and in my opinion *Nummulites* should be declared a masculine name.

DOCUMENT 2

Advice received from Dr. W. A. MACFADYEN

(letter dated 1st May 1954 addressed to Dr. L. R. Cox)

The two references I mentioned to you were : (a) W. A. Macfadyen and E. J. A. Kenny, 1934, "The correct writing in form and gender of the names of the Foraminifera" *J. Roy. Microscop. Soc.* **44** : 177—181 (specially pp. 177—8) ; and (b) A. Silvestri, 1939, "Foraminiferi dell'Eocene della Somalia. Parte II". *Pal. italiana*, **32** : Suppl. 4 (bottom of p. 2 of separate (= p. 80), and footnote 3 on same page).

Kenny's view as a classical scholar was that the ending *ites* was definitely masculine. I have now looked through a voluminous correspondence I had with Kenny and others about our paper before publication, but this particular point does not seem to have been queried by anyone. Our critics included Glover (then Public Orator at Cambridge), W. D. Lang, d'Arcy Thompson, and H. D. Thomas. Silvestri quotes Neumayr, 1899 as getting quite hot about it, and writing that those who consider it feminine are insensate, barbarous and arbitrary.

Silvestri considers it feminine, writing that to adopt it as masculine is contrary to the common rules of the Latin language. The matter would thus seem to resolve itself into a difference of opinion between classical scholars, which a man of science is not competent to decide. Surely classical scholars ought to be capable of deciding it ?

The number of authors using Nummulites as masculine or feminine seems roughly equal. Silvestri lists rather more using it as feminine, but he omits many names of those using it as masculine by lumping them nameless as followers of Henri Douvillé. Many of the more modern authors are thus omitted. They include Boussac 1911, etc., Doncieux 1926, Arni 1935, de Cizancourt 1930, etc., Nuttall 1925, etc., L. M. Davies 1927, 1930, Lluca 1929, Vredenburg 1909, Cotter 1914, Henson 1948. Older writers using it as masculine and omitted by Silvestri include Tallavignes 1848, Leymerie 1844, Risso 1826, Tellini 1888, Conrad 1846, Deshayes 1838, 1848.

There is a similarity of usage in the gender of *Orbitolites*. Of other generic names in *ites*, I have only noticed a few, with few species, mostly not ascertainably masculine or feminine inflected.

It certainly seems up to classical scholars to decide the matter from the form of the word.

DOCUMENT 3

Advice received from Professor L. R. GRENSTED, Honorary Classical Adviser to the Commission

(letter dated 5th May 1954)

I think there can be no doubt that *Nummulites* should be regarded as masculine. The word is clearly a barbarism, compounded of the Latin *nummus* (masculine) and the Greek termination—*ίτης* (masculine). Words with the termination *-ites* are very rare in classical Latin and are almost always direct transliterations of Greek words. Thus :—

chernites—*χερμίτης* (Pliny, etc.) is masculine

sorites—*όωρείτης* (Cicero, etc.) is masculine

similarly

eremita, in spite of its feminine termination, is transliterated from *έρημίτης*, and is masculine.

Silvestri's plea that to make it masculine " is contrary to the common rules of the Latin language " is apparently based upon the fact that Latin nouns ending in *-es* are commonly feminine. But *-ites*, being a Greek termination, does not come under this rule.

The only example I know of a Latin form in *-ites* not based on the Greek is *Samarites*—a Samaritan, found, I think, only once, in an obscure writer (the dictionary reference is Hadr. ap. Vop. Sat. 8) and this again is masculine.

In later Latin we again have forms like *Stylites*, based on the Greek, and masculine.

The only escape from this would be an original opinion by the author of the generic name, based upon some other derivation. But the only possible one I can see would be based on *nummus* and *λίθος*, and would be very irregular at that. And in any case both words are masculine. [Cf. *Coprolite*, *Coprolith*].

Orbitolites is a very obscure word indeed. But it should, I think, obviously be treated, like *Nummulites* (from which it might even be formed by some sort of analogy) as masculine.

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

2. *Issue of Voting Paper V.P. (O.M.) (54) 6* : Concurrently with the submission to the Commission of the proposals set out in paragraph 4 of the paper by the Secretary, reproduced in paragraph 1 above, a Call for a Vote, numbered Voting Paper V.P.(O.M.) (54) 6, was issued on 12th May 1954 under the One-Month Rule. In this Voting Paper each Member of the Commission was asked (1) to state whether he agreed "that, in conformity with the General Directive relating to the recording on the *Official List of Generic Names in Zoology* of the gender of each name placed thereon prior to 1948, issued to the International Commission by the Thirteenth International Congress of Zoology, Paris, 1948, the gender specified in paragraph 4 of the note by the Secretary submitted simultaneously with the present Voting Paper should be entered in the foregoing *Official List* in respect of the names enumerated in that paragraph", and (2), if he did not so agree, as regards any given item, to indicate the item concerned.

3. *The prescribed Voting Period* : As the foregoing Voting Paper was issued under the One-Month Rule, the prescribed Voting Period closed on 12th June 1954.

4. *Particulars of the Voting Paper V.P.(O.M.) (54) 6* : The state of the voting on Voting Paper V.P.(O.M.) (54) 6 at the close of the prescribed Voting Period was as follows :—

(a) *Affirmative Votes had been given by the following seventeen (17) Commissioners (arranged in the order in which Votes were received)* :

Sylvester-Bradley ; Lemche ; Riley ; Holthuis ;
Hering ; Dymond ; Vokes ; Stoll ; Esaki ; Hankó ;
Hemming ; Jaczewski ; Boschma ; Bradley (J. C.) ;
Cabrera ; Bonnet ; Pearson ;

(b) *Negative Votes* :

None ;

(c) *On leave of absence* :

Mertens ;

(d) *Voting Paper V.P.(O.M.) (54) 6* was not returned by one (1) Commissioner :

do Amaral.

5. *Declaration of Result of Vote* : On 13th June 1954, Mr. Hemming, Secretary to the International Commission, acting as Returning Officer for the Vote taken on Voting Paper V.P. (O.M.) (54)6, signed a Certificate that the Votes cast were as set out in paragraph 4 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.

6. On 13th June 1954, Mr. Hemming prepared the Ruling given in the present *Direction* and at the same time signed a Certificate that the terms of that Ruling were in complete accord with those of the proposal approved by the International Commission in its Vote on Voting Paper V.P. (O.M.) (54) 6.

7. The original references for the generic names, the gender of which is determined by the Ruling given in the present *Direction*, are specified in the *Opinions* in which decisions on those names were severally taken by the Commission.

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

9. The present *Direction* shall be known as *Direction Three* (3) of the International Commission on Zoological Nomenclature.

DONE in London, this Thirteenth day of June, Nineteen Hundred and Fifty-Four.

*Secretary to the International Commission
on Zoological Nomenclature*

FRANCIS HEMMING

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

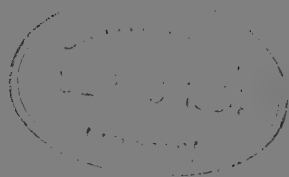
Edited by

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

Secretary to the Commission

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INTERNATIONAL COMMISSION ON ZOOLOGICAL NOMENCLATURE

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Vice-President : Dr. James L. PETERS (*Museum of Comparative Zoology, Cambridge, Massachusetts, U.S.A.*).
Secretary : Mr. Francis Hemming, C.M.G., C.B.E. (*London, England*).

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Edited by

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

Secretary to the Commission

VOLUME 3. Part 32. Pp. 427—448

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Professor Robert L. USINGER (*University of California, Berkeley, California, U.S.A.*).

Corrigenda

- page 95. Line 1 of title : substitute "*Arca*" for "*Acar*".
- pages 139—154 : substitute "*Bruguière*" for "*Brugière*", wherever the latter spelling occurs.
- page 241. Point (2), lines 13 and 16 : substitute "1758" for "1767".
- page 261. Point (2)(a), line 4 : substitute "1758" for "1767".
- page 261. Point (2)(b), line 2 : substitute "in" for "of".
- page 261. Point (2)(b), line 3 : substitute "1758" for "1767".
- page 278. Line 5 : substitute "*Kofoïd*" for "*Kofiod*".
- page 404. Point (3), line 3 : substitute "77" for "76".



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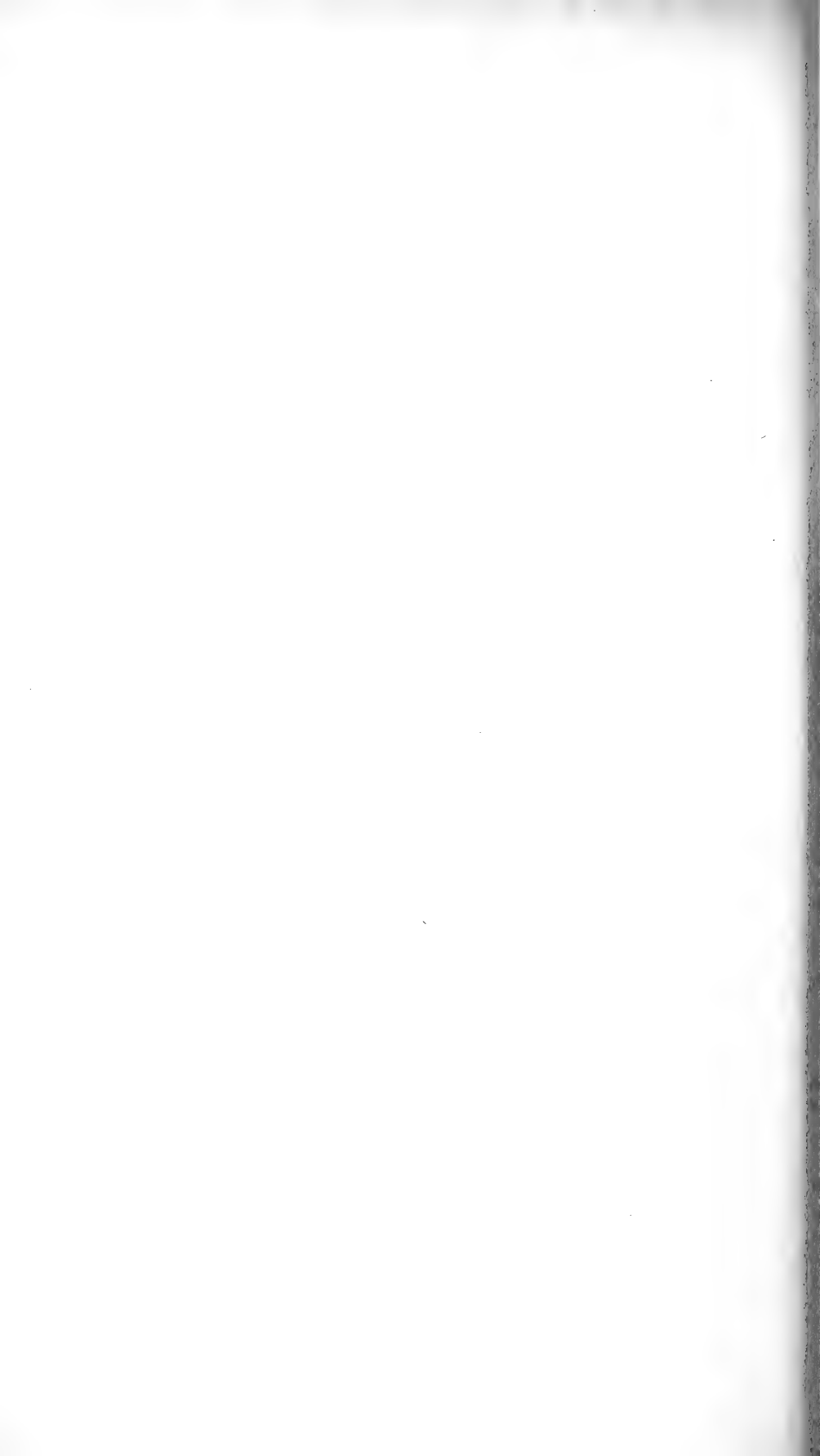
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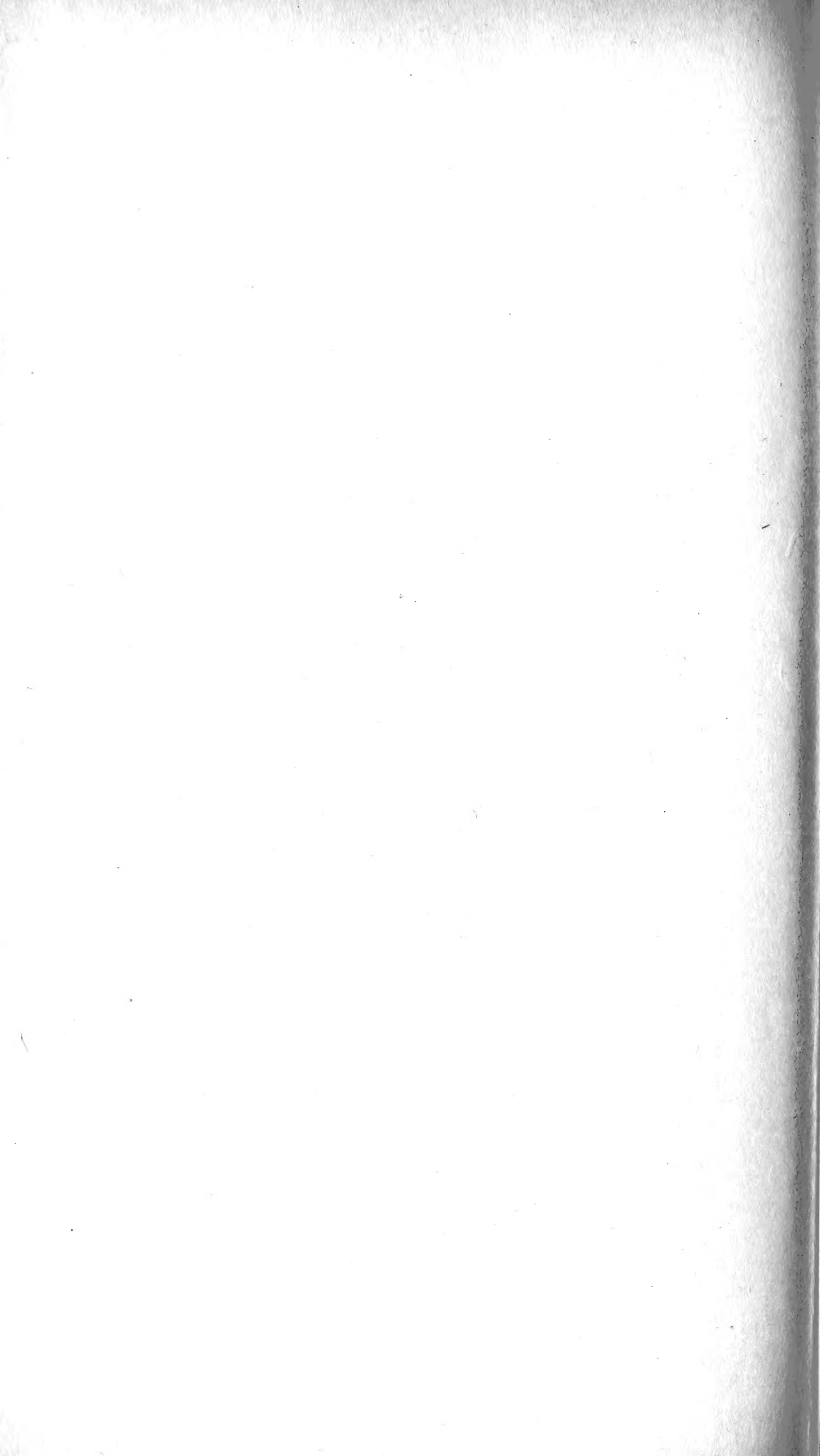
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