

OPINION 76

STATUS OF PYROSOMA VS. MONOPHORA; CYCLOSALPA VS.
HOLOTHURIA; SALPA VS. DAGYSA; DOLIOLUM.
APPENDICULARIA AND FRITILLARIA

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SUMMARY.—The Secretary is authorized and instructed to insist that cases presented for opinion shall be accompanied by reasonably complete data to enable fair consideration of the points at issue. *Pyrosoma* 1804 has priority over *Monophora* 1804. *Cyclosalpa* 1827 is not invalidated by *Holothuria* 1758 (type *physalis*), which does, however, invalidate *Physalia* 1801. The present use of *Holothuria* (type *tubulosa*) in echinoderms is not in accord with the Rules, but authors are advised to use *Physalia* 1801 for the Portuguese Man of War, and *Holothuria* 1791 as genus of Sea Cucumber, pending action upon possible suspension of the Rules in these two cases. As presentation of the cases of *Salpa*, *Appendicularia*, *Doliolum*, and *Fritillaria* is incomplete and contains errors, these cases are laid upon the table indefinitely, but without prejudice; unless it can be shown that an application of the Rules in these cases will result in greater confusion than uniformity, the Rules should be enforced.

STATEMENT OF CASE.—The following names were submitted to the Commission by 12 special workers in the *Tunicata*, with request that the names be protected against change:

Doliolum, *Pyrosoma*, *Salpa*, *Cyclosalpa*, *Appendicularia*, und *Fritillaria* sind gegen Aenderung zu stützen.

Wir 12 unterzeichneten Tunicatenforscher sind übereingekommen, die 6 genannten Genusnamen pelagischer Tunicaten als gültig anzunehmen. Die Namen dieser Tunicaten werden von jedem Zoologen als vollkommen eingebürgert anerkannt werden, ihr Gebrauch hat bisher niemals zu Missverständnissen Anlass gegeben, die Genera sind Paradigmata in der zoologischen Systematik, sie spielen in der Entwicklungsgeschichte eine grosse Rolle und beanspruchen in der Tiergeographie, Planktonforschung und auch in der Hydrogeographie einen ganz hervorragenden Platz. Eine Aenderung der Namen würde eine schwere Schädigung bedeuten.

(1) *Doliolum* Quoy und Gaimard, 1834.—*Doliolum* ist von Otto 1823 (N. Acta Ac. Leop., v. 11, p. 313) für eine wohl durch *Phronima* ausgefressene *Pyrosoma* aufgestellt worden. Dann ist *Doliolum* von Quoy und Gaimard, 1834 (Voy. Astrolabe, v. 3, p. 599) gut beschrieben und jetzt in letzterem Sinne allgemein in Gebrauch. Den bisherigen Regeln nach würde *Doliolum* Synonym zu *Pyrosoma* werden, für *Doliolum* in heutigem Sinne würde ein neuer Name gebildet werden müssen. Der Familienname Doliolidae würde verschwinden.

(2) *Pyrosoma* Péron, 1804.—1804 beschrieb Péron (Ann. Mus., Paris, v. 4, p. 440) *Pyrosoma* und ebenfalls 1804 Bory (Voy. Iles Afr., v. 1, p. 107, nota) *Monophora*. Welcher der beiden Namen der ältere ist, lässt sich nicht feststellen, aber aus Quoy und Gaimard, 1824 (Voy. Uranie und Physicienne, p. 495), scheint hervorzugehen dass *Monophora* älter ist; sie schreiben, "Bory—avait donné le nom de monophore à un mollusque, qui depuis a été appelé pyrosome Péron." Es empfiehlt sich den Namen *Pyrosoma* für alle Fälle zu sichern.

(3, 4) *Salpa* Forskål, 1775, und *Cyclosalpa* Blainville, 1827.—Diese beiden Genera sind durch Ihle, 1911 (Zool. Anz., v. 38, pp. 585-589) verteidigt und auch in seine Bearbeitung in "Das Tierreich" (v. 37, 1912; Siehe auch Nota p. 27, von F. E. Schulze) übergegangen. Wir glauben uns mit diesem Hinweise begnügen zu können und erlauben uns noch an die gegenteiligen Aufsätze von Poche (Zool. Anz., v. 32, 1907, pp. 106-109; v. 39, 1912, pp. 410-413) zu erinnern.

(5) *Appendicularia* Fol, 1874.—*Appendicularia* wurde von Chamisso und Eisenhardt, 1820 (N. Acta Ac. Leop., v. 10 (11), p. 362, t. 34 F. 4), für eine arctische, nicht erkennbare Art, aufgestellt. Fol hat 1874 (Arch. Zool. exper., v. 3, notes, p. 49) den Gattungsnamen für die tropische Art *Appendicularia sicula*, die von der arctischen sicher generisch verschieden ist, übernommen und darauf hin hat sich der Name in letzterem Sinne allgemein eingebürgert. *Appendicularia* würde anderenfalls eine Species incerta enthalten und für *Appendicularia* mit der Species *sicula* würde ein neuer Gattungsnamen aufzustellen sein. Der Name der Ordnung *Appendiculariæ* würde verschwinden.

(6) *Fritillaria* Fol, 1874.—Quoy und Gaimard, 1834 (Voy. Astrolabe, v. 4, p. 306), stellen den Namen Frétiliaires auf [(*Fritillaria* Huxley 1851, Philos. Trans. (London), part 2, p. 595), *Fritillaire* C. Vogt, 1854 (Mém. Inst. Genève, v. 2, no. 2, p. 74)] identifizierten ihn aber sofort mit *Oikopleura* Mertens, 1831. Um den Namen *Fritillaria* zu retten, hat Fol, 1874 (Arch. exper., v. 3, notes, p. 49) ihn in bestimmten von früherem abweichendem Sinne gebraucht, in welchem er sich vollständig eingebürgert hat. *Fritillaria* würde Synonym zu *Oikopleura* und eine Neubenennung nötig.

C. Apstein (Berlin), A. Borgert (Bonn), G. P. Farran (Dublin), G. H. Fowler (Apsley-Guise), R. Hartmeyer (Berlin), W. A. Herdman (Liverpool), J. E. W. Ihle (Utrecht), H. Lohmann (Hamburg), W. Michaelsen (Ham-

burg), G. Neumann (Dresden), C. Ph. Sluiter (Amsterdam), F. Todaro (Rome).

DISCUSSION.—According to the premises submitted, these cases call for an exercise of the Plenary Power granted to the Commission by the Monaco Congress to suspend the Rules of Nomenclature under certain conditions. As this is the first instance of this kind that comes to vote, attention is invited to the wording of the resolutions¹ upon which said power is based.

In accordance with the provisions of §113¹ notice that the names in question had been submitted for action under the Plenary Power, by suspension of the Rules, was duly published.²

¹ See Proceedings Ninth International Congress on Zoology, Monaco (1913), 1914, pp. 890-891:

(§113) *Resolved*, That plenary power is herewith conferred upon the International Commission on Zoological Nomenclature, acting for this Congress, to suspend the Règles as applied to any given case, where in its judgment the strict application of the Règles will clearly result in greater confusion than uniformity, *provided*, however, that not less than one year's notice shall be given in any two or more of the following publications, namely, Bulletin de la Société Zoologique de France, Monitore Zoologico, Nature, Science (N. Y.), and Zoologischer Anzeiger, that the question of a possible suspension of the Règles as applied to such case is under consideration, thereby making it possible for zoologists, particularly for specialists in the group in question, to present arguments for or against the suspension under consideration; and *provided*, also, that the vote in Commission is unanimously in favor of suspension; and *provided further*, that if the vote in Commission is a two-thirds majority of the full Commission, but not a unanimous vote in favor of suspension, the Commission is hereby instructed to report the facts to the next succeeding International Congress; and

(§114) *Resolved*, That in the event that a case reaches the Congress, as hereinbefore described, with two-thirds majority of the Commission in favor of suspension, but without unanimous report, it shall be the duty of the President of the section on Nomenclature to select a special board of 3 members, consisting of one member of the Commission who voted on each side of the question and one ex-member of the Commission who has not expressed any public opinion on the case; and this special board shall review the evidence presented to it, and its report, either majority or unanimous, shall be final and without appeal, so far as the Congress is concerned; and

(§115) *Resolved*, That the foregoing authority refers in the first instance and especially to cases of the names of larval stages and the transference of names from one genus or species to another.

² See Science (N. Y.), v. 39, pp. 619-620, April 24, 1914; Bulletin de la Société Zoologique de France, v. 39, pp. 142-144, May 12, 1914; Monitore Zoologico Italiano, Anno 25, pp. 74-76; Zoologischer Anzeiger, v. 44, pp. 238-240, May 12, 1914.

In addition, these names were included in Circular Letter no. 2, Series 1915, mailed March 1915 to approximately 350 zoologists and zoological institutions of various kinds.

As a result of publication and Circular Letter no. 2, seven persons returned the list with no action taken, hence these persons come under the paragraph which reads: "In case you fail to mark any name one way or the other, I will interpret this as meaning that you have no opinion either for or against the name in question."

Twenty-eight persons took action on various names; some on all of the names, others only on names with which they were best acquainted. Twenty-seven persons raised no objection to any of the names and made no comment of any objective importance, except that, at the request of the Secretary, Commissioner Apstein, who originally submitted the list, added the species he considered should be accepted as type species for each of the six genera in question. One reply was received discussing the cases in detail and objecting to a suspension of the Rules as unnecessary.

The data collected were summarized in Circular Letter no. 11³ and transmitted to the Commission.

³ The following is a portion of Circular Letter no. 11:

As this is the first case that comes to the Commission for action under the Plenary Power, it seems wise that the papers in the case be laid before the Commission for discussion before the Secretary prepares a formal Opinion for vote.

In accordance with this thought the Secretary has the honor to invite your attention to the Seventh List of Generic Names, to Circular Letter no. 2, and to the foregoing replies to said letter.

If you will give me your views as to the general direction that the formal Opinion should take, I will collate all of the views expressed, and report to you upon them. This plan will naturally result in some delay, but the case is one of such importance, because it makes a precedent, that I cannot escape the feeling that the Secretary should receive from all of the Commissioners their preliminary views before he attempts to frame an Opinion.

In connection with your views kindly give consideration to the following points:

1. The names in question have been submitted favorably and unanimously by 12 specialists in the group involved;
2. All of the provisions prescribed by the Congress in reference to the suspension of the Rules have been complied with;
3. No objection to any of the said names has been raised—
 - a. By any specialist in the group in question,
 - b. By any specialist [except Bartsch] in any other group,
 - c. By any general zoologist.
4. Is it your "Opinion" that a suspension of the Rules in these six cases is based upon a question of convenience, or that the application of the Rules in these cases would "clearly result in greater confusion than uniformity"?

The various points raised in reply ⁴ to Circular Letter no. 11 have been held in mind by the Secretary in framing this Opinion.

*Duty of the Commission under the Plenary Power Resolutions.*²—It will be noticed that in reply to Circular Letter no. 11, the point is raised that the Commission should take very seriously the responsibility the International Congress has placed upon us and that the expression “where in its judgment the strict application of the Rules will clearly result in greater confusion than uniformity” is advanced as the standard upon which we must base our opinion; further, also, that this extraordinary Plenary Power must be exercised with the utmost care and discretion.

*Incompleteness of the statement of case.*⁵—In respect to the Statement of Case, two points of view may be considered:

(1) It is clear that no Court at Law would consider that the evidence submitted by the Appellants is presented in a manner that permits a fair judicial consideration of these cases. The Commission is practically a Court that should decide questions on basis of the evidence submitted, but it has a right to insist that this evidence shall be reasonably complete in order to enable the Commission to consider the cases from every essential point of view. From this standpoint, the Commission would be justified in declining to con-

5. If only a matter of convenience is involved, is this convenience of sufficiently far reaching importance to justify a suspension of the Rules?

6. If it is your “Opinion” that “greater confusion than uniformity” would result, does this apply to all of the names or only to certain of them?

7. Have the signers of the Seventh List submitted evidence that the application of the Rules in these cases would clearly result in greater confusion than uniformity, and is this evidence sufficient to justify favorable action on the part of the Commission?

8. Is the Secretary correct in accepting the genotypes suggested by Commissioner Apstein, or should the Secretary, as a precautional measure, request that these genotypes be confirmed by the other signers of the Seventh List?

9. Would the suspension of the Rules in these six cases involve an action sufficiently conservative to show that the Commission is using the Plenary Power with caution, or would it be sufficiently radical to indicate that the Commission invites a general suspension of the Rules in cases where convenience only is involved?

10. Do you consider all of the six names equal in importance from the standpoint of the suspension of the Rules, or should a distinction be made among them?

11. Is evidence submitted that any of the names come under paragraph 3 (115). If so, for which names?

⁴The replies were copied and transmitted to the Commissioners, but it is not necessary to print them with the Opinion.

⁵See p. 38, Statement of Case.

sider these cases because of the incomplete preparation of the evidence.

(2) It has, however, been the custom of the Commission to aid former Appellants by adding data not submitted by them, and in view of the fact that these names are the first to come up for consideration under the Plenary Power Resolutions, it would appear questionable whether the Commission should suddenly become more strict as to completeness of presentation. Accordingly, the Secretary has felt it better policy to add data that will enable the Commission to show every possible consideration to the Appellants.

Nevertheless, in view of the great amount of work involved, the Secretary recommends that the Commission take this occasion to establish for the future the policy involved in the following resolutions:

Resolved, That the Secretary is hereby authorized and instructed to insist that cases presented to the Commission for consideration shall be accompanied by reasonably complete data to enable a fair consideration of the nomenclatorial points at issue, and

Resolved, That in order to give opportunity to submit complete evidence, the Secretary is hereby authorized and instructed to return to Appellants cases not stated with a reasonable degree of completeness.

RESULT OF VOTE.—Resolution concurred in by 12 Commissioners: Allen, Bather, Blanchard, Handlirsch, Hartert, Hoyle, Jordan (D. S.), Jordan (K.), Monticelli, Skinner, Stejneger, Stiles.

Not voting, 6 Commissioners: Apstein, Dautzenberg, Horváth, Kolbe, Roule, Simon.

Nomenclatorial views of writers on Tunicata.—During a study of the cases under consideration, the Secretary has had another opportunity to gain an insight into some of the nomenclatorial customs of writers on tunicates, and thus to see the origin of at least some of the difficulties presented.

The chief nomenclatorial difficulties in this group appear to be referable to certain fundamental factors:

(1) In general, authors on the tunicates appear to take no account of the principle of type species for genera. As a consequence, confusion results. The impression gained from the literature is that the authors have been working on the basis only of a morphological norm and without reference to a nomenclatorial type. In the judgment of the Secretary, the present nomenclatorial confusion in this group is likely to continue until some author gives himself the trouble to examine systematically the entire literature of the group and to determine, according to Article 30 of the Rules, the correct nomen-

clatorial type species for every generic name. Even the monographic works of Seeliger and Hartmeyer (Bronn's Thierreich) and of Ihle (1912a) and Neumann (1913a) (in Das Tierreich) do not appear to have been based upon the principle of type species. If any work exists in which genotypes have been determined for the entire tunicate group, the Appellants have not mentioned this in their evidence.

(2) Certain important authors in this group do not appear to have based their nomenclatorial work upon a careful study of the Rules of Nomenclature that existed at the time they wrote. Thus, early authors appear to have been unfamiliar with the Linnæan Rules, and more recent authors (since 1842) appear to have been unfamiliar with, or to have misinterpreted, or to have ignored, the rules as proposed or adopted by various societies from 1842 to 1910. Under these circumstances it is not surprising that confusion has resulted.

(3) A striking feature of tunicate literature is that authors consider that if the description upon which a given name is based seems obscure to them, they are at liberty to apply said name to any group they may desire, regardless of its original application,⁶ or to rename the original group.⁷

⁶ For examples see the following quotations:

Quoy and Gaimard (1834a, 599) in proposing a new genus *Doliolum*, say: "Il ne faut pas confondre ce genre avec celui ainsi nommé par M. Otto, dans les Nova acta curios. natur., t. 42, fig. 7, qui n'est qu'un Biphere tronqué aux deux extrémités par une espèce de crustacé pélagien nommé Phronyme, qui s'y loge et fait développer ses petits. Nous avons trouvé deux fois et rapporté ce singulier animal dans son logement."

Fol (1872a, 460) in proposing a family "Appendiculaires" and a new genus *Fritillaria* says: "Les descriptions que donnent Chamisso de son Appendiculaire, et Quoy et Gaimard de leur *Fritillaria* sont si vagues, que je me crois en droit de faire de ces noms l'usage que je voudrai. Je conserve comme nom de famille, le nom donné par Chamisso, et applique le terme de *Fritillaria* au second de mes genres que ce nom désigne assez bien."

Under *Fritillaria* he gives *F. furcata* (Vogt), and four new species: *F. megachile*, *F. aplostoma*, *F. formica*, and *F. urticans*.

Fol (1874a, xlix) in proposing a new genus *Appendicularia*, says: "Les noms *Appendicularia* (Cham.) et *Fritillaria* (Q. & G.) se rapportent clairement à des animaux de la famille qui nous occupe, mais il est impossible d'appliquer les descriptions dont ces noms ont été accompagnés à l'une plutôt qu'à l'autre des formes qui la composent. Je persiste donc à me considérer comme libre de les donner au genre que bon me semble, tout en faisant suivre le nom de cette réserve: *Diagnosis emendata*. Le nom donné par Chamisso n'ayant pas encore trouvé son emploi, je l'appliquerai au genre actuel."

Of the species of *Fritillaria* he now cites: *F. aplostoma* (which he changes to *haplostoma*), *F. megachile*, and *F. furcata*.

⁷ Mertens (1831a, 205-206) in proposing the new genus and species *Oikopleura chamissonis* says: "Das in Anfrage stehende Thier ist freilich schon

(4) At least one specialist in tunicates, who is so rigid in regard to priority that he rejects one name for another merely on basis of page precedence,⁸ does not consider it necessary to confine the genotype to the original species published under a genus.⁹

In the cases that are presented by the 12 specialists in tunicates, the Commission is, accordingly, requested to validate certain names in a group which does not as yet appear to have been subjected to any serious or systematic nomenclatorial study on basis of the International Rules. In the judgment of the Secretary, this fact alone should make the Commission exceedingly cautious, lest an Opinion be rendered which may possibly result in distinct and unnecessary confusion that might be avoided if some tunicate specialist will subject the group to the very necessary nomenclatorial study it deserves before important final steps are taken.

Classes of cases presented.—A study of the cases under consideration indicates that they naturally fall into certain categories, as follows:

I. *Pyrosoma* 1804 vs. *Monophora* 1804: This case involves simply a determination of the facts as regards the dates. If exact dates cannot be determined more closely than 1804, the case is amply provided for by Article 28.¹⁰

II. *Cyclosalpa* 1827 vs. *Holothuria* 1758 of Lûche, 1912: This case involves a determination of the genotypes according to Article 30.

von Chamisso, vor mir, an derselben Stelle, wo ich es beobachtete, gesehen und bereits vor 10 Jahren in der 1. Abtheilung des 10. Bandes der Verhandlungen der Kaiserlichen Leopoldinisch-Carolinischen Akademie der Naturforscher als eine neue Gattung unter dem Namen *Appendicularia* aufgeführt worden. Allein die Beschreibung und Darstellung ist so unvollkommen, das ich mein Thier füglich als nicht bekannt annehmen kann und muss.... (p. 218). Ich habe diese Art mit dem Namen meines....Freundes belegt....weil er der erste war der die Aufmerksamkeit der Naturforscher auf dieses Thier gelenkt hat."

⁸ Thus Ihle (1911a, 588) says: "K. Heider (1805, S. 308 Anm.) hat schon darauf hingewiesen, dass *S. mucronata* in *S. democratica* umzuändern ist, denn Forskål beschreibt letztgenannte Art auf S. 113 seiner Arbeit und *S. mucronata* erst auf der folgenden Seite.... Wir kommen also zum Ergebnis, das....*S. mucronata* in *S. democratica* Forskål....zu ändern ist."

⁹ But Ihle (1911a, 585-586) also says: "Nun hat Linné [1767a] in der 12. Ausgabe seines Systema Nature der Gattung *Holothuria* [1758] noch mehrere Arten zugefügt, welche teilweise echte Holothurien sind, und der Typus der Gattung *Holothuria* ist unter den in dieser Gattung verbleibenden Arten zu suchen."

¹⁰ "If the names are of the same date, that selected by the first reviser shall stand."

III. *Dagysa* 1773 vs. *Salpa* 1775: This case involves (a) a determination of the genotypes (Art. 30) and an application of the Law of Priority (Arts. 26-27).

IV. *Appendicularia*, *Doliolum* and *Fritillaria*: These cases involve the principle (footnote 6) cited above, that an author who considers the original description of a genus insufficient from his point of view is at liberty to use the name in any way he may desire, regardless of rules or consequences.

Bibliography.—In discussing these cases, the Secretary refers to the articles mentioned in footnote.¹¹

¹¹ BIBLIOGRAPHY.—The Secretary desires to acknowledge, with the greatest appreciation, the very valuable aid extended to him by Dr. Paul Bartsch, Curator of the Division of Marine Invertebrates, United States National Museum, in obtaining literature and in a study of these cases.

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CASE OF *PYROSOMA*¹² PÉRON, 1804, VS. *MONOPHORA*¹³
BORY, 1804

According to the premises presented, (1) *Pyrosoma* and *Monophora* are synonyms and (2) it cannot be determined which has

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 POCHE, 1907d, U. d. r. Gebr. d. Gattungsnamen *Holothuria* u. *Actinia* [etc.] <Zool. Anz., v. 32 (3-4), 20 Aug., 106-109.
 ——— 1912a, Z. Nom. d. *Bohadschiidae* u. d. *Dagysidae* <Ibidem, v. 39 (11-12), Apr. 23, 410-413.
 QUOY & GAIMARD, 1833a, Voyage de l'Astrolabe, v. 4.
 ——— 1834a, Idem, v. 3.
 RUMPHIUS, 1741a, D'Amboinsche Rariteitskamer.
 SCHULZE, 1912a, footnote, p. 27, in Ihle, 1912a.
 SCOPOLI, 1777a, Introductio ad Hist. nat.
 SHERBORN, 1902a, Index animalium.
 ——— 1914a, Ann. Mag. Nat. Hist.
¹²*Pyrosoma* Péron, 1804a, 437, 440, pl. 72, monotype *P. atlanticum*, p. 440, pl. 72. [Aug. 18 [or earlier], 1804.]
¹³*Monophora* Bory, 1804a, 107, monotype *M. noctiluca*, pp. 107-108, pl. 6, fig. 2. [Aug. 23, 1804.]

priority in publication, but (3) *Monophora* appears to be the earlier. On basis of these premises special protection is asked for *Pyrosoma* in order that it may not be suppressed in favor of *Monophora*.

The first premise is zoological in nature, and rests upon the technical judgment of the petitioning specialists. For the purpose of this Opinion it is fundamental, and is accepted as established.

The second and third premises involve questions of fact which can be studied without reference to technical interpretation in taxonomy.

According to the evidence before the Secretary (personal examination of the necessary literature) the two publications in question (Péron and Bory) are of the same year (1804), but that of Péron for *Pyrosoma* also bears the date of An XII of the French Republic, and that of Bory for *Monophora* also bears the date of An XIII of the French Republic.

An XII ended September 22, 1804, and An XIII began September 23, 1804. As it is a general principle that the date borne by a publication is to be assumed to be correct unless proved to be incorrect, the evidence of An XII and An XIII would at first appear to settle the question at issue. The work by Bory bears, however, the printed statement on its flyleaf that in accordance with law, two copies of the book were deposited in the Bibliothèque nationale, Paris, "ce 5 Fructidor An XII de la République Française" (namely, August 23, 1804). Furthermore, according to Sherborn (1914a, p. 366) volume 4 of the Ann. Mus. nat. (containing *Pyrosoma*) was published in August, 1804. Furthermore, also, Commissioner Blanchard in reply to a request of the Secretary to establish in Paris the exact date of issue of Péron's publication, has, under date of March 28, 1916, replied as follows:

Le fascicule 24 des Annales du Muséum d'histoire naturelle, qui contient le mémoire de Péron, se trouve annoncé et analysé dans le Journal général de la librairie [not accessible to the Secretary] de thermidor an XII. Thermidor an XII finissant le 18 août 1804, il est donc hors de doute que le mémoire de Péron est paru quelque temps, peut-être même plusieurs semaines avant cette date.

Accordingly the actual date of publication for *Monophora* is August 23, 1804, and for *Pyrosoma* it is earlier than August 18, 1804.

An examination of the facts of the case in question shows, therefore, that the 2nd and 3rd premises, upon which the Appellants ask special protection for *Pyrosoma* are erroneous, and that if the International Rules are rigidly applied, *Pyrosoma* is amply protected from danger of being suppressed in favor of *Monophora*.

In view of the foregoing data, the Secretary recommends that the Commission adopt as its Opinion the following:

The data presented by the Appellants do not show that an application of the Rules in this case will produce greater confusion than uniformity, hence *Pyrosoma* vs. *Monophora* is not a case in which the Commission would be justified in suspending the Rules.

Opinion written by Stiles.

Opinion concurred in by 14 Commissioners: Allen, Apstein, Bather, Blanchard, Handlirsch, Hartert, Hoyle, Jordan (D. S.), Jordan (K.), Kolbe, Monticelli, Skinner, Stejneger, Stiles.

Not voting, 4 Commissioners: Dautzenberg, Horváth, Roule, Simon.

CASE¹¹ OF *CYCLOSALPA* 1827, *THALIA* 1791, AND
HOLOTHURIA 1758

Systematic Conceptions of Holothuria.—The generic name *Holothuria*, as used by various authors from 1758 to 1916, has included species of four different subkingdoms, namely, Group A, *Coelen-*

¹¹ Names dating prior to 1758, hence not validated in original publication:

Holothuria Rumphius, 1741a, 49-50, monotype [*H. physalis* 1758].

Physalis Osb. [Not accessible to Secretary.]

Thalia Browne, 1756a, 386, contains 3 species [1 = *Hol. thalia*, 2 = *H. caudata*, 3 = *H. denudata*]; 1789a, 384, 386 [reprint, not validated here].

Names dating 1758 or later:

Holothuria Linn., 1758a, 657, contains *physalis*, *thalia*, *caudata*, *denudata*.

Type *physalis*, designated by Gill, 1907a, 185-186, and Schulze, 1912a, 27.

[See also Blumenbach, 1791a, 428 and 1799a, 421.]

Type *thalia*, designated by Poche, 1912a, 410-411.

Type *tubulosa*, designated by Apstein, 1915a, 132.

Holothurium Pallas, 1774b, 26 (for *Holothuria*) describes *zonarium*.

Phyllidoce Modeer, 1790b, 191-207, contains *zelella* 1758 (syn. *Phyllidoce labris caeruleis* Browne, 1789a, 387 [not validated by Edwards in Browne, 1789a, 387 or on pl. 48, fig. 1]), *denudata* 1758, and *porpita* 1758.

Physosphora Forskål, 1775a, 112, 119, contains *hydrostatica*, *rosucca*, and *filiformis*.—Apstein, 1915a, 128 cites *hydrostatica* as type.

Arctusa Edwards in Browne, 1789a, 386 for *Arcthusa* Browne, 1756a. [Not validated here].

Thalia Bruguière, 1791a, pls. 88-89, contains 1. *Hol. thalia* [type by absolute tautonymy], 2. *H. caudata*, 3. . . . ?. . . . [could not be traced by Secretary], and 4. *H. physalis*.

Thalis Cuvier, 1798a, 398, for *Thalia* 1791, hence type *H. thalia*.

Cyclosalpa Blainville, 1827, 108-109, contains *Salpa pinnata* Gmel., *S. affinis*, and [as sp. incert.] "les espèces de thalides de Browne."—Apstein, 1915a, 186, cites *pinnata* as type.

Physalia Lamarck, 1801a, 355-356, mt. *P. pelagica* (= *H. physalis* 1758).—

Apstein, 1915a, 128, cites *arcthusa* Browne, 1756, as type.

Physalis Lamarck, 1816a, v. 2, 478-481 (uses both *Physalia* and *Physalis*).

terata, Group B, *Tunicata*, Group C, *Echinodermata*, and Group D, *Vermes*, as follows:

Linnæus (1758a, 657) validated *Holothuria* nomenclatorially as generic name under which he united two earlier genera to which he did not grant the rank of subdivisions, namely:

Group A, The Portuguese Man of War [*Holothuria*¹⁵ 1741; *Arethusa*¹⁶ 1756; and *Physalis*¹⁴].

1. *H. physalis*, for which he cited the earlier names: *Holothuria*¹⁵ Rumphius; *Arethusa*¹⁴ Browne; and *Physalis pelagica*¹⁴.

Group B, Three Jamaican salps [genus *Thalia* Browne,¹⁶ 1756].

2. *H. thalia*, based on *Thalia* 1. of Browne, 1756a, p. 384, pl. 43, fig. 3.
3. *H. caudata*, based on *Thalia* 2, of Browne, 1756a, p. 384, pl. 43, fig. 4.
4. *H. denudata*, based on *Thalia* 3, Browne, 1756a, p. 384.

Essentially, therefore, *Holothuria* 1758 equals *Holothuria* 1741 (syns. *Arethusa* 1756 and *Physalis*) + *Thalia* 1756.

That the first species (*H. physalis*) should have been taken as genotype by later authors is clear from the following facts:

- (1) *Holothuria* 1758 is based directly upon *Holothuria* 1741;
- (2) Linnæus' rule, in case of a division of a genus, reads:

Si genus receptum, secundum jus naturæ et artis, in plura dirimi debet, tum nomen ante commune manebit vulgatissimæ et officinali plantæ.

(3) As the Portuguese Man of War was observed, named, and reported by various authors, it was clearly, from Linnæus' viewpoint, more common than any one of the three species of the *Thalia* group, which were based upon the publication by only one author.

¹⁵ Rumphius (1741a, 49-50) described and named *Holothuria*, without binomial, stating that it belonged to the so-called *Urticaria marina*. Rumphius' animal is apparently *Physalia* of modern authors.

¹⁶ Browne (1756a, 386) is not accessible to the Secretary; in a later edition, Browne (1789a, 386) uses *Arctusa* for "The Portuguese Man of War" (*Physalia* of modern authors) and (1789a, 384) he uses *Thalia* as follows:

Thalia 1. Oblonga, crista, perpendiculari compressa quadrata, lineis lateralibus integris. Tab. 43 f. 3.

Thalia 2. Oblonga caudata, crista depressa rotundata, lineis lateralibus interruptis. Tab. 43. f. 4.

Thalia 3. Oblonga, lineis interruptis, cauda et crista destituta.

As he uses the names "3, *Holothuria thalia*. 4, *Holothuria caudata*" in the explanation on plate 43, it seems clear that *Thalia* 1756 is not validated in 1789.

From descriptions and figures, all three of Browne's species appear to be salps in the modern sense, but without re-examining the Jamaican salps it would be difficult or impossible to determine what particular genera and species are referred to.

Under ordinary circumstances the nomenclatorial decision might well be based upon this original publication alone, without additional historical review, but on account of the complications that have arisen, it seems wise to follow the literature further.

Linnaeus (1767a, 1089-1091) included in *Holothuria* the four (1758a) species of the two original groups (A, *Holothuria* 1741, and B, *Thalia* 1756) and added five other species that are recognized by authors as belonging to two other categories, namely,

Group C, Sea Cucumbers [cf. *Fistularia* Forskål, 1775, preoccupied by *Fistularia* 1758a, a fish] [cf. also *Bohadschia* Jæger, 1833].

1. *H. frondosa* Gunnerus, 1767, 115, [cf. *Cucumaria*;]
2. *H. phantapus* Linn., 1767a, 1089, [cf. *Psolus*;]
3. *H. tremula* Gunnerus, 1767, 119, [cf. *Holothuria* authors;]
4. *H. pentactes* Linn., 1767a, 1091, [cf. *Cucumaria*.]

Group D, Vermes, *Gephyrea*. [Cf. *Priapulus* Lamarck, 1816b, 76-77, mt. *caudatus* = *priapus* 1767 renamed.]

5. *H. priapus* Linn., 1767a, 1091.

Here is found the origin of the present day confusion. Many authors have taken the 12th edition of Linnaeus (1767a) as the starting point of their nomenclature, and, in fact, the British Association (1846) Code of Nomenclature adopts this date as basic. Other authors have taken the 10th edition of Linnaeus (1758a) as starting point, as provided for in the A. A. A. S., the A. O. U., the French, the German, and the International Rules. Accordingly, there was a period during which different authors might follow rules in good faith and still arrive at different nomenclatorial results. Hence, to understand the case, we must follow three (A-C) of the groups, A-D, still further.

This case may, in fact, be taken as a typical example of a number of complicated nomenclatorial problems that confront us, and it would be well to hold the cause in mind in reaching a conclusion.

GROUP A, THE PORTUGUESE MAN OF WAR. HOLOTHURIA 1741 = ARETHUSA 1756 = PHYSALIS = ARETUSA 1789 = PHYSALIA 1801.

Holothuria physalis has been taken as basis of *Holothuria* by the following authors:

Blumenbach (1791a, 428 and 1799a, 421) adopts *Holothuria* in its original (1741) sense, mentioning only one species, *H. physalis*. For his use of *Thalia* see below, p. 52.

Gill (1907a, Aug. 9, 185-186) definitely designates *H. physalis* as genotype of *Holothuria* 1758, as shown by the Commission (1910, p. 34) in Opinion No. 16.

Schulze (1912a, p. 27) considers that *Holothuria* should be retained for *H. physalis*; for his disposition of *Thalia*, see below.

Modeer (1789b, 285) had transferred *H. physalis* to *Physosphora* Forskål, 1775. This genus originally contained only *P. hydrostatica*, *rosacea*, and *filiformis*.

Lamarck (1801a, 355-356) adopted *Physalia* as a new genus, with *pelagica* as monotype. He gives as synonym of *pelagica*, *Holothuria physalis* Linn., *Thalia* 1791, and *Arethusa* Browne, p. 386.

Burmeister (1837a, 460) adopts *Physalia*, mentioning *Ph. caravella* (with syns. *Ph. arethusa* Eisenh., *Ph. pelagica* Lam., *Cystisoma atlantica* Lesson).

Apstein (1915a, 128) (quoting Vanhöffen, 1903) reduces Browne's (1756) generic name (*Arethusa*) to specific rank, and cites it as type species (of *Physalia*) with the date 1756.

Physalia has been changed to *Physalis* by some authors. Either *Physalia* or *Physalis* has been used by nearly all authors since 1801 as generic name for the Portuguese Man of War, and it may be said to be at present practically in universal use, except for Gill (1907a) and Schulze (1912a).

GROUP B. THALIA BROWNE, 1756A, THE JAMAICAN SALPS

So far as the Secretary has found, the first authors to make *Thalia* available under the Rules, were Blumenbach (1791a) and Bruguière (1791a), but he is unable to state which publication has priority.

Pallas (1774b, 26) changed *Holothuria* to *Holothurium*, mentioning *H. zonaria*. Ihle (1912a, 27) gives *Holothurium* 1774 as synonym of *Salpa*.

Modeer (1790b, 201) had already transferred *Hol. denudata* (= *Thalia* 3 of Browne, 1756) to *Phyllidoce*. This genus of Modeer (1790b, 191-207) was based upon *velella*, [*Hol.*] *denudata* 1758, and *porpita*. It was clearly based primarily upon *Phyllidoce labris caeruleis* of Browne, 1789a, 387 (the only species of *Phyllidoce* 1789) which Modeer gives as synonym of *velella*.

Bruguière (1791a) uses *Thalia* on pls. 88-89, without specific names, for the following:

- pl. 88 fig. 1 = Browne's pl. 43 fig. 3 (reversed) = *Hol. thalia* 1758;
- pl. 88 fig. 2 = Browne's pl. 43 fig. 4 (reversed) = *Hol. caudata* 1758;
- pl. 88 fig. 3 = [not traced by Secretary];
- pl. 89 fig. 1 = The Portuguese Man of War = *Physalia*.

From the foregoing it appears that taxonomically *Thalia* 1791 is practically coextensive with *Holothuria* 1758, but nomenclatorially *Hol. thalia* becomes the genotype of *Thalia* by absolute tautonymy.¹⁷

Cuvier (1798a, 389) emended *Thalia* to *Thalis* as follows:

VII. LES THALIDES. (*Thalis*) (*Thalia* Brug.) (*Holothuria* Lin.) [generic diagnosis] "Une espèce (*thalis physalus*) (*holothuria physalus* Lin.) a de longs et nombreux tentacules; les autres (*holothuria thalia*, etc. Lin.) en sont dépourvues.

Thalis takes *Hol. thalia* as type, since *Thalis* is only an emendation of *Thalia*.

Blumenbach (1799a, 472) mentions *Thalia*, quoting only one species, *lingulata* (Atlantic Ocean) and citing Forster.

Lamarek (1801a, 356) accepts *Thalis*, mentioning only one species, *trilineata* (with references to *Hol. thalia* 1758 and *Thalia* Browne, 1756a, plate 43, figure 3, and referring to Bruguière, 1791a, plate 88, figure 1).

Blainville (1827, 108-109) separated from *Salpa* the group *Cyclosalpa*, with diagnosis; he cites *S. pinnata* Linn. Gmel., *S. affinis* Chamisso, and adds:

Il faut, sans doute, rapporter à cette section les espèces de thalides de Browne, puisqu'elles se réunissent aussi en cercle; peut-être même ne sont-ce que des biphores pinnés, comme le pense M. de Chamisso; mais ce qu'il est impossible d'assurer, tant les descriptions et les figures sont incomplètes.

According to the Code, the type of *Cyclosalpa* must be either *pinnata* or *affinis*. Browne's species are excluded (Art. 30eβ) since Blainville considered them as species inquirendae. Apstein (1915a, 186) has designated *C. pinnata* as type species.

¹⁷ Two possible interpretations come into consideration in connection with *Thalia* 1791 as follows:

First: Some authors might be inclined to consider *Thalia* a new name for *Holothuria* 1758. In this event the question would arise as to whether *Thalia* should take *Hol. physalis* 1758 as genotype, because of the citation by Linnæus; or whether *H. thalia* became the type of *Thalia* by absolute tautonymy, and thus by the principle of renaming became also type designation for *Holothuria* 1758.

Second: Some authors might maintain that Bruguière in 1791 divided the genus *Holothuria* as it existed at the date of his writing, retaining *Holothuria* for the Sea Cucumbers, and separating from *Holothuria* the genus *Thalia*. In this latter alternative *H. thalia* undoubtedly becomes type of *Thalia* by absolute tautonymy.

The Secretary accepts the second interpretation on the ground that it seems to him to correspond more clearly with the facts, and it also seems to simplify the complications.

Poche (1907a, Aug. 20, 106) in discussing *Holothuria* 1758, and applying the principle of elimination, cites the transfer of *physalis* to *Physosiphora* in 1789, and of *denudata* to *Salpa* by Modeer¹⁸ 1790, 201 or 202, but does not mention *Thalia* 1791 and *Thalis* 1798 and 1801, and he states that either *thalia* or *caudata* should be taken as the type of *Holothuria* 1758.

Ihle (1911a, 585-586), in a discussion of the nomenclature of *Holothuria*, states that Traustedt (1885, 353) and Seeliger (1893, 23) consider *H. thalia* [type of *Thalia* 1791] and *H. caudata* as synonyms of *Cyclosalpa pinnata*, but that he (Ihle) considers that the identification of *H. thalia* with *C. pinnata* is only a conjecture ("ein Vermuten"), and that it is clear that Browne had observed "Salpen" although that the descriptions and figures of Browne are too meagre (dürftig) to permit of an identification of the two species. Ihle claims that even if the identity of *C. pinnata* with *H. thalia* be admitted, *Holothuria* cannot replace *Cyclosalpa*, since Linnæus (1767a) had added further species to *Holothuria* and the type of *Holothuria* should be sought among those still remaining in the genus.

Poche (1912a, Apr. 23, 410-411) in replying to Ihle (1911a, 585-586) points out the latter's error [under the Rules] in connection with Linnæus, 1767a, and designates *H. thalia* as type of *Holothuria*, 1758. This designation is, however, antedated by Gill's (1907) designation of *physalis*.

Schulze (1912a, 27) advises the use of *Salpa* 1775 for the species of *Thalia* 1756.

Ihle (1912a, May, p. 15) gives *Thalia* Browne, 1756 (see also 1789), and *Holothuria* Linn., 1758 (part), as doubtful synonyms of *Cyclosalpa*, and (p. 17) he cites *H. thalia* + *H. caudata* + *H. denudata* Linn., 1758, as doubtful synonyms of *Cyclosalpa pinnata* (1775).

GROUP C. SEA CUCUMBERS. HOLOTHURIA AUTHORS [NOT LINN., 1758]

It was seen above that Linnæus (1767a) added four species of Sea Cucumbers to *Holothuria*; namely, *frondosa*, *phantapus*, *tremula*, and *pentactes*.

Authors who took the 12th edition of Linnæus (1767a) as starting point for their nomenclature should have confined the genotype to one of these species in case they desired to restrict *Holothuria* to the Sea Cucumbers.

¹⁸ Modeer, 1790b, 201, placed *denudata* in *Phyllidoce*.—CWS. Compare, also, Sherborn, 1902a, 294

Gmelin (1790a, 3138-3143) added 16 species¹⁹ to *Holothuria*, changing *tremula* to *tubulosa* and *pentactes* to *pentacta*.

Bruguière (1791a, pls. 85-87) after eliminating the original species (1758) of *Holothuria* to *Thalia*, restricts *Holothuria* to the Sea Cucumbers.²⁰

Cuvier (1798a, 644-645) mentions only *tubulosa* Linn., [Gmel., 1790a, see *tremula* Linn.] and *pentacta* [see *pentactes*] under *Holothuria*.

Lamarck (1801a, 351) mentions only "*H. tubulosa* Linn.," and, since 1801, *Holothuria* has been almost universally confined to the Sea Cucumbers of this group.²¹

Apstein (1915a, 132) cites *tubulosa* Gmel. [cf. *tremula*] as type, and it will be noticed that of the authors quoted in footnote 21 *tremula* Linn., 1767a [cf. *tubulosa* Gmel. 1790a] is mentioned as a *Holothuria* auct. [not 1758] by: Linnæus (1767a), Cuvier (1830), and Gill (1907a), while *tubulosa* Gmelin, 1790a [cf. *tremula* Linn., 1767a] is mentioned as a *Holothuria* by Gmelin (1791a), Cuvier (1798a), Lamarck (1801a), Burmeister (1837a), Claus (1885a), Leunis (1886a) and Apstein (1915a).

This list might be extended much further, but it is sufficiently long to show that one of the Linnæus' (1767a) holothurian species, namely, *tremula*, which was renamed *tubulosa* by Gmelin (1790a),

¹⁹ The additional species are: 10. *elegans*, 11. *squamata*, 12. *penicillus*, 13. *fuscus*, 14. *inhærens*, 15. *lævis*, 16. *minuta*, 17. *forcipata*, 18. *zonaria*, 19. *vittata*, 20. *maxima*, 21. *impatiens*, 22. *nuda*, 23. *spirans*, 24. *papillosa*, 25. *spallanzani*.

²⁰ The text to these plates has not been found by the Secretary, but a later edition (1824, v. 2) of the *Encyl. méth.*, refers to plates 85-87 and uses for the figures the following names: *frondosa*, *phantapus*, *pentacta*, *doliolum*, *fuscus*, *inhærens*, *glutinosa*, *vittata*, *squamata*, and *penicillus*.

²¹ Duméril (1806a, 304-305) continues *Holothuria* as an echinoderm, but gives no species.

Lamarck (1816b, 71-74) quotes under *Holothuria*: *frondosa*, *phantapus*, *pentacta*, *doliolum*, *fuscus*, *inhærens*, *glutinosa*, *vittata*, *squamata* and *penicillus*.

Cuvier (1830a, 238-240) quotes: *phantapus* L., *squamata* Mueller, *regalis* Fab., *tremula* [cf. *tubulosa*], *frondosa*, and in footnote, *elegans*, etc.

Burmeister (1837a, 471) quotes *tubulosa* [cf. *tremula*], *elegans*, *impatiens*, *ananas*, *monacaria*, u. a., but recognizes *Bohadschia*, *Mülleria*, and *Trepang* as distinct genera.

Claus (1885a, 249) quotes *tubulosa* [cf. *tremula*], and *edulis*.

Leunis (1886a, 888-839) quotes *monacaria*, *marmorata*, *scabra*, *vagabunda*, *impatiens*, *atra*, *edulis*, *tubulosa* [cf. *tremula*], and *polii*.

Gill (1907a, 185) quotes *frondosa* and *pentactes* as *Cucumaria*, *phantapus* as *Psolus*, and *tremula* [cf. *tubulosa*] as *Holothuria* of modern authors.

has continued in *Holothuria* even after this name was definitely transferred to the Echinoderms.

From the standpoint of the British Association Code of 1846, which took Linnæus (1767a) 12th edition as starting point of nomenclature, the present general use of *Holothuria* for the Sea Cucumbers, instead of for the Portuguese Man of War, is therefore justified, although, as shown above, the name *Holothuria* should, on basis of the American, French, German, and International Rules, which take the 10th (1758a) instead of the 12th (1767a) edition of Linnæus as starting point, be used for the Portuguese Man of War.

Doubtless the papers by Gill (1907a) and Poche (1907a and 1912a) in discussing this case have caused more dissatisfaction with the Law of Priority than has any other single case of nomenclature that has ever arisen. And this case of *Holothuria* was one of those which the Commission had particularly in mind when we worded, in the way we did, the Resolutions presented to the International Congress and adopted by the Congress, conferring upon the Commission Plenary Power [§113] "to suspend the Rules as applied to any given case, where in its judgment the strict application of the Rules will result in greater confusion than uniformity" and [§115] "the foregoing authority refers in the first instance and especially to . . . the transference of names from one genus to another."

Holothuria is, in fact, the best example known to the Secretary in the entire field of nomenclature that comes into consideration in connection with the Plenary Power cited. If suspension of the Rules is not justified in this case, it is doubtful whether it is justified in any case. The name presents, therefore, a test case of the Plenary Power.

Unfortunately, the petitioners have presented their case of *Cyclosalpa* in such a way that the Commission can not act upon the case of *Holothuria* 1758 vs. *Physalia* 1801 and *Holothuria* of authors vs. *Bohadschia* 1833, at the present time, and it becomes necessary to notify the zoological profession that these two cases will come up for consideration under the Plenary Power authority. The Secretary has taken action in this direction. He was scarcely in a position to take this action earlier, on account of the fact that the petitioners' case of *Cyclosalpa* 1827 vs. *Holothuria* of Poche 1912 had not reached a stage in its procedure that justified further public notice.

On basis of the premises presented by the petitioners, and the supplementary data submitted in the foregoing discussion, the Secretary recommends that the Commission adopt as its Opinion the following:

(1) *Cyclosalpa* 1827 is not invalidated by *Holothuria* 1758.

(2) The data submitted by the petitioners are not clear as to the point whether *Cyclosalpa* 1827 is invalidated by *Thalia* 1791.

(3) If *Thalia* 1791 is, as intimated by Schulze (1912), synonymous with *Salpa* 1775, *Cyclosalpa* 1827 is in no danger of being suppressed in favor of *Thalia* 1791.

(4) If *Thalia* 1791 is only a doubtful synonym of *Cyclosalpa* 1827, it is neither necessary nor wise to suppress *Cyclosalpa* 1827 in favor of *Thalia* 1791.

(5) If, on the other hand, *Holothuria thalia*, the type of *Thalia* 1791, is definitely recognized by systematists as congeneric with the type of *Cyclosalpa* 1827, a very simple case is presented in which the Law of Priority should be applied, unless it can be shown that a strict application of the Rules will result in greater confusion than uniformity.

(6) *Holothuria* 1758 (type *physalis*) undoubtedly has priority over *Physalia* 1801.

(7) *Holothuria* of authors, as an echinoderm genus, type *tubulosa* (teste Apstein) is undoubtedly an illegal use of the name *Holothuria* and should (teste Gill, 1907; and Poche, 1907, and 1912) be superseded by *Bohadschia*.

(8) Notwithstanding the foregoing conclusions, the Commission advises zoologists to use *Physalia* 1801 for the Portuguese Man of War and *Holothuria* in its present general use in the echinoderms (namely, as a genus of Sea Cucumber) pending final action by the Commission on these two cases.

Opinion written by Stiles.

Opinion concurred in by 11 Commissioners: Allen, Bather, Blanchard, Hartert, Hoyle, Jordan (D. S.), Jordan (K.), Monticelli, Skinner, Stejneger, Stiles.

Opinion dissented from by 3 Commissioners, who vote to preserve *Cyclosalpa* under Suspension of Rules: Apstein, Handlirsch, Kolbe.

Not voting, 4 Commissioners: Dautzenberg, Horváth, Roule, Simon.

CASE²² OF *DAGYSA* 1773 VS. *SALPA* 1775

Hawkesworth (1773a, 2-3), quoting from notes by Banks and Solander, gave a brief description of certain animals, and adds:

These animals are of a new genus, to which Mr. Banks and Dr. Solander gave the name of *Dagysa* from the likeness of one species of them to a gem.

²² *Salpa* Catesby 1743a, 17, mt. *purpurasens variegatus*, a fish.—Edwards in Catesby, 1771a, 17.—Sherborn 1902a, 865.

No specific name is used, but the locality is given as between Plymouth and Madeira, off the coast of Spain, where, it is stated, "the sea abounds with them."

Gmelin (1790a, 3131) accepts *Dagysa*, with the single species *notata* (based upon Banks and Solander, 1773, 2) which becomes the type species of the genus.

Ihle (1912a, 47) quotes "*Dagysa notata* (part)" as synonym of *Salpa vagina* Tiles, 1791.

Forskål (1775a, 112) proposed the genus *Salpa*, with generic diagnosis, to contain *maxima*, and 10 other species.²²

Catesby (1743a, 17) had already described a fish under the name *Salpa purpurasens variegata*, "The Lane-Snapper." As this antedates 1758, the name does not come into consideration in nomenclature. Sherborn (1902a, 856) quotes this as "*Salpa* G. Edwards in M. Catesby, Carol. II, 1771, 17.—P." This latter reference has been examined by the Secretary, and the list of Linnæan names has been examined by Commissioner Skinner; a transcript of the list for the name in question makes it clear to the Secretary that *Salpa* Catesby 1771 is not validated, hence it does not compete with *Salpa* 1775.

Poche (1907a, 109) rehabilitates *Dagysa* 1773 in place of *Salpa* 1775, changing the family name *Salpidæ* to *Dagysidæ*.

Ihle (1911a, 586) states that on basis of the description in Hawkesworth the identity of *Dagysa* and *Salpa* is only a conjecture, but that Home (1814) published a drawing of *Dagysa* which was made during Banks' trip, and that this (*Dagysa strumosa*) is identical with *Salpa tilesii* Sol. Ihle rejects *Dagysa* 1775 on the ground that he considers it was not published in accordance with the Rules, and in support of this view he quotes Hawkesworth's reference to "another animal of a new genus they also discovered . . . the genus was called *Carcinium opalinum*." Ihle does not, however, call attention to the fact that Hawkesworth quotes many Linnæan names consistently, and that the term "genus" in this case might easily be a lapsus,

Dagysa Banks & Solander, 1773, 2-3, in Hawkesworth 1773a, mt., species not named here.—Gmelin, 1790a, 3131, mt. *notata*.

Salpa Forskål, 1775a, 112, 117, includes *maxima*, *pinnata*, *democratica*, *mucronata*, *punctata*, *confederata*, *fasciata*, *sipho*, *africana*, *solitaria*, *polycratica*.—Apstein, 1915a, 186, cites *maxima* as type.

Biphora Bruguière, 1792a [1789, teste Sherborn, 1902a, 128], x, 178-183, includes 9 original species (1775) of *Salpa* (*maxima*, *pinnata*, *democratica*, *mucronata*, *punctata*, *confederata*, *fasciata*, *africana*, *polycratica*).

Dagysa Home, 1814, 366.

especially in view of the numerous instances in which the nomenclature of the author is consistent.

Poche (1912a, 411-412) replying to Ihle (1911a) points out that Hawkesworth uses many Linnæan names consistently, and Poche insists upon the validity of *Dagysa* 1773.

Ihle (1912a, 27) accepts *Salpa*, without mentioning type species, and adopting as earlier generic synonyms: *Dagysa* 1773 (which he marks as "non. bin."), and *Holothurium* 1774, and he gives *D. notata* (part) as synonym of *S. vagina*. Schulze (1912a, 27) adds in a footnote:

Linné hatte in der 10. Auflage seiner Systema naturæ im Jahre 1758 in seiner Gattung 4 Arten aufgeführt. Die erste Art, *H. physalis*, die jetzt unter dem Namen *Physalia* bekannt ist, muss als erste angeführte Species den Gattungsnamen *Holothuria* behalten, der vor *Physalis* die Priorität hat. Für die übrigen 3 Arten [*Thalia* 1756] des Linnéschen Genus, unter denen sich sicher als Salpen erkennbare Tiere befinden muss ein neuer Gattungsname gewählt werden und da bietet sich als Name des nächsten in Betracht kommenden Beschreibers Forskål der Name *Salpa*.—Der Herausgeber [Schulze] im Einverständnis mit dem Autor.

[On p. 17, however, Ihle gives these three species as doubtful synonyms of *Cyclosalpa pinnata*.]

Schulze (1912a, 27) considers that *Thalia* Browne should be classified as *Salpa*, while Ihle (1912a, 15) places *Thalia* as a doubtful synonym of *Cyclosalpa*.

Apstein (1915a, 186) cites *marima* as type of *Salpa*.

In connection with this case the point might well be mentioned that while Gmelin (1790a, 3129-3130) cites the original 11 species of *Salpa* under the generic name *Salpa*, Bruguière (1792a [or 1789, teste Sherborn 1902a, 128], x, 178-183) cites 9 of them under the generic name *Biphora*,²² and one of these is *marima* (type of *Salpa*, teste Apstein). Ihle (1912a, 27) gives *Biphora* as synonym of *Salpa*. Whether *Biphora* complicates the question of *Salpa* or not, is not evident from the premises submitted.

The petitioners ask that *Salpa* be protected, and from the references they give they apparently have in mind a protection from *Dagysa* 1773.

On basis of the premises submitted, supplemented by the details given in the foregoing, the Secretary draws the following conclusions:

(1) *Dagysa* 1773 is available from its publication in 1773.

(2) The case is presented with evidence that is not complete enough to permit more than a tentative opinion;

(3) Assuming (a) that the case of *Salpa* 1775 is not complicated by *Biphora* 1792 [or 1789], and (b) that *Dagysa notata* 1790 is congeneric with *S. maxima*, and (c) that *maxima* is the correct genotype of *Salpa*, the case of *Dagysa* 1773 vs. *Salpa* 1775 appears to be a very simple case of the priority of *Dagysa* 1773 over *Salpa* 1775, but

(4) No transfer of name from one group to another appears to be necessary, and

(5) No evidence is presented involving names of larval forms;

(6) Accordingly, no special complications appear to be present such as exist in the case of *Holothuria*.

(7) The evidence is therefore still lacking that the strict application of the Rules in this case would result in greater confusion than uniformity.

In view of the foregoing data the Secretary recommends that the Commission adopt as its Opinion the following:

(1) If *Dagysa* 1773, type *notata*, is a synonym of *Salpa* 1775, the Law of Priority should be applied, unless it can be shown that a strict application of the Rules will result in greater confusion than uniformity.

(2) The evidence is apparently contradictory and incomplete.

(3) See also recommendation to table, page 69.

Opinion written by Stiles.

Opinion concurred in by 10 Commissioners: Allen, Bather (part), Blanchard, Hartert, Jordan (D. S.), Jordan (K.), Monticelli, Skinner, Stejneger, Stiles.

Opinion dissented from (in part) by 1 Commissioner: Bather.

Opinion dissented from by 4 Commissioners, who vote to retain *Salpa* under Suspension of Rules: Apstein, Handlirsch, Hoyle, Kolbe.

Bather: I do not quite concur in Clause 1 of the Opinion drafted by the Secretary.

Dagysa 1773 is a generic name without a specific name. It was not till 1790 that any species included in *Dagysa* received a name that could be quoted as that of the genotype. There are zoologists who, on this ground alone would hold *Dagysa* to be preoccupied by *Salpa* Forskål 1775 (assuming their identity).

But the identity of *Salpa* (with genotype *S. maxima*) and *Dagysa* (with genotype *D. notata*) is not admitted by all the Appellants; and the doubt is due to the insufficient description of *Dagysa*.

It must also be conceded that, even if the publication by Hawkesworth can be brought within the rules, it was not in very good form

and was so obscure that it escaped the search of even a careful investigator like Sherborn.

I therefore conclude that the continued use of *Salpa* should not be affected by the existence of *Dagysa*; and that *Dagysa* should not be used until, and unless, it be definitely proved to denote some genus that is *not Salpa*.

I agree, however, with Clause 2 of the drafted Opinion, and therefore I concur in Clause 3.

Hoyle: I am of the opinion that the use of *Dagysa* for *Salpa* will cause much confusion. *Salpa* is a name used not only by specialists but in laboratories, text-books and numerous books of travel. Under these circumstances I am obliged to divide my vote on the final question as I cannot vote for or against *in toto*.

CASE²³ OF APPENDICULARIA 1820, OIKOPLEURA 1831,
APPENDICULARIA 1874, APPENDICULA 1915,
AND APPENDICULARIIDÆ

Chamisso and Eysenhardt (1820a,²⁴ 362) propose the genus *Appendicularia*, with the monotype *A. flagellum* 1820, a new Artic species taken in St. Lawrence Gulf [Bay], Bering Strait. They give no generic diagnosis, but they print a short specific diagnosis and they figure the species.

As shown above (footnote 7), Mertens (1831a, 205-220) claims to have found this same species (*A. flagellum*) in its type locality (St. Lawrence Gulf [Bay], Bering Strait) and definitely to have recognized it as *A. flagellum*; he deliberately renames the genus as *Oikopleura* and the species as *chamissonis*. This species is the only one he cites for *Oikopleura*, hence it is genotype both by renaming and by monotypy.

Accordingly, until it is proved that Mertens was wrong in considering the two animals identical, *Oikopleura* 1831 must be con-

²³ *Appendicularia* Chamisso and Eysenhardt, 1820a, 362, monotype *flagellum* 1820a, 312-363, pl. 31 fig. 4 (St. Lawrence Gulf [Bay], Bering Sea).

Oikopleura Mertens, 1831a, 205 (*Appendicularia* 1820 renamed), mt. *O. chamissonis* 1831a, 205-220, pls. 1-2 (*A. flagellum* renamed), (same locality, but different collection).

Appendicularia Fol, 1847a, xlix, mt. *sicula* 1874a, xlix-liii, pl. 18 figs. 1-5 (at Messina).

Appendicula Bartsch, 1915a, 145, tod. *Appendicularia sicula*. New name for *Appendicularia* Fol.

²⁴ The exact date, 1820 or 1821, cannot be definitely determined from the copy consulted by the Secretary, but the Appellants give it as 1820.

sidered a synonym of *Appendicularia* 1820, and *O. chamissonis* 1831 an absolute synonym of *A. flagellum* 1820.

Fol (1872a, 469) states that *Oik. chamissonis* is one of the three species of *Oikopleura* that is recognizably described and he adopts the generic name *Oikopleura*, but as shown above (footnote 6), he (1872a, 460) states that the description of *A. flagellum* is so vague that he considers himself justified in using *Appendicularia* in any way he may wish, and he adopts the French vernacular *Appendiculaires* as the family name.

Further, as shown above (footnote 6), Fol (1874a, xlix) persists in his view that he may use *Appendicularia* in any way he desires, and he applies it to a new genus ("un nouveau genre") for which he cites "Cham." as author, and in which he mentions only one form, *Appendicularia sicula* n. sp.

Accordingly, Fol recognized *Oikopleura*, monotype *O. chamissonis*, but could not recognize its absolute synonym, *Appendicularia*, monotype *flagellum*, further than that it belonged to the same family, so he uses *Appendicularia* for a new genus, which Chamisso never described, and he attributes this new genus of 1874 to Chamisso 1820. It is clear, therefore, (1) that nomenclatorially *Appendicularia* 1874 is to be considered monotypic, (2) that it is to be attributed to Fol, and (3) that it is preoccupied by *Appendicularia* 1820 (syn. *Oikopleura* 1831).

The names *Appendicularia* 1820 and *A. flagellum* 1820 have found their way into certain standard text-books,²⁵ and a family name *Appendiculariidae* exists which is based upon *Appendicularia* 1820.

Apstein (1915a, 186) cites *A. sicula* as type of *Appendicularia* Fol, 1874, and Bartsch (1915a, 145) proposes the name *Appendicula*, type *sicula*, for *Appendicularia* 1874, because it is preoccupied by *Appendicularia* 1820 [syn. *Oikopleura*].

The Appellants submit that *Ap. flagellum* 1820 is unrecognizable, but they do not discuss the facts that Mertens recognized it and renamed it, and that Fol considers that *Oikopleura chamissonis*

²⁵ Leunis (1883a, 813) recognizes the family *Appendiculariidae*, with the genus "*Appendicularia* Cham." and the species "*A. flagellum* Cham."

Claus (1885a, 586) recognizes the family *Appendicularidae*, and the genus "*Oikopleura* Mertens (*Appendicularia* Cham.)."

Knauer (1887a, 46) recognizes *Appendicularidae*, with "*Appendicularia* Cham. *Fritillaria* Fol, etc."

Parker and Haswell (1901a, 24) recognize "*Appendicularia* (*Oikopleura*)," but (p. 22) they cite *Appendicularia* and *Oikopleura* as distinct genera in *Appendiculariidae* and they do not quote the author of the generic names.

[namely *Ap. flagellum*] was, up to 1872, one of the three species of *Oikopleura* [namely *Appendicularia* 1820] recognizably described, and they request that the Rules be suspended in order to validate *Appendicularia* Fol, 1874a, which otherwise would have to be renamed, and, they add, "Der Name der Ordnung *Appendicularidæ* würde verschwinden."

Appendicularia Fol, 1874a, and *Fritillaria* Fol, 1872a," may be taken as samples of several cases of nomenclature that have come to the attention of the Secretary, and in considering them it will be well to hold in mind that they by no means represent isolated or unique cases. In fact, the decision on these two cases will constitute a precedent upon basis of which a number of cases may depend.

It seems clear that this represents a case in which, if the Rules are enforced, a generic name used by some authors for one group (*Appendicularia* Fol, 1874, type *sicula*) will be transferred back to another group (*Appendicularia* Cham. and Eysenh., type *flagellum*) mentioned under this same name in standard text-books as late as Claus (1885a) and Leunis (1886a), and this action would suppress the name *Oikopleura* 1831 (which is an absolute synonym of *Appendicularia* 1820): but the premise of the petitioners, that the family [not ordinal] name *Appendiculari[i]dæ* would disappear, is not clear. From the standpoint that the Rules would require a transfer of the generic name from one genus to another, the Appellants seem to have a stronger case than they appear to have recognized, but it would seem that they have presented only part of the facts, and that they are in error as to the required change of *Appendiculari[i]dæ*.

Again, what will be the effect of admitting to special privilege a case like this, in which an author claims the right to use in any way he wishes a name which is obscure to him (Fol), but which another author (Mertens) claims to have identified correctly with a given animal collected in the original type locality, especially when the name in question belongs to a group which even its leading authors of modern times have not yet brought to the nomenclatorial status of a genotype basis?

The case of *Appendicula* 1915 vs. *Appendicularia* 1874 (pre-occupied) is a very simple case of the application of the law of Priority to one and the same genus, and would not produce much confusion. But the Appellants have presented their case so incompletely that it is not clear to the Secretary whether it would be wiser to supplant *Oikopleura* 1831 by *Appendicularia* 1820 or to suppress *Appendicularia* entirely. In view of the danger involved in validating

nomenclatorial work based upon the principle advanced by Fol, it is not at all impossible, though it is not yet clear, that the most far-sighted course might perhaps be to suspend the Rules by validating *Oikopleura* 1831, in spite of the fact that it is antedated by *Appendicularia* 1820, and at the same time to suppress *Appendicularia* 1872 in favor of *Appendicula* 1915 in order not to admit nomenclatorial practices of this nature.

On basis of the foregoing data, the Secretary recommends that the Commission adopt as its Opinion the following:

(1) *Appendicularia* Chamisso and Eysenhardt, 1820, has priority over *Oikopleura* Mertens, 1831.

(2) *Appendicularia* Fol, 1874, is a homonym of *Appendicularia* 1820, and should be suppressed unless it can be shown that a strict application of the Rules will result in greater confusion than uniformity. If suppressed, the name *Appendicula* 1915 is available as substitute.

(3) The contention of the Appellants that a change of the ordinal [read family] name *Appendiculari[i]dæ* is involved is not made clear to the Commission in the premises contained in the presentation of the case.

(4) See also proposition to table, page 69.

Opinion written by Stiles.

Opinion concurred in by 11 Commissioners: Allen, Bather, Blanchard, Hartert, Hoyle, Jordan (D. S.), Jordan (K.), Monticelli, Skinner, Stejneger, Stiles.

Opinion dissented from by 2 Commissioners, who vote to retain *Appendicularia* Fol under Suspension of Rules: Apstein, Kolbe.

Not voting, 5 Commissioners: Dautzenberg, Handlirsch, Horváth, Roule, Simon.

CASE²⁰ OF *DOLIOLUM* 1823, *PYROSOMA* 1804, *DOLIOLUM* 1834, *DOLIOLETTA* 1894, AND *DOLIOLIDÆ*

Otto (1823a, 313) describes "*Doliolum mediterraneum*" (type specimen deposited in Zool. Museum, Breslau), an animal collected, free swimming on the surface, Gulf of Naples.

²⁰ *Doliolum* Otto, 1823a, 313, mt. *mediterraneum* 1823a, 313-314, pl. 42 fig. 4.

Doliolum Quoy and Gaimard, 1834a, 599, contains *denticulatum* 1834a, 599-601, pl. 89 figs. 25-28 (from "la côte de l'île Vankiro") and *caudatum* 1834a, 601-602, pl. 89 figs. 29-30.—Apstein, 1915a, 186 (cites *denticulatum* as type).

Dolioletta Borgert, 1894a, 14 (subg. of *Doliolum*) contains *Doliolum gegenbauri*, *tritonis*, *nationalis*, *challengeri*, *denticulatum* 1834, *affine*, *ehrenbergi*.

Doliolina Borgert, 1894a, 14-18 (subg. of *Doliolum*) contains *Doliolum mülleri*, *krohnii*, *rarum*.

Quoy and Gaimard (1834a, 599) proposed *Doliolum* as a name for a new genus to contain *D. denticulatum* (sur la côte de l'île Vankiro) and *D. caudatum* (La Nouvelle-Holland et Nouvelle-Zéland). They had full knowledge of the existence of *Doliolum* Otto, 1832, as is shown by their statement quoted in footnote 6 (see above, p. 44).

The Appellants (see Statement of Case) consider that *Doliolum* 1823 is a "wohl durch *Phronima* ausgefressene *Pyrosma*," but they do not state whether this opinion is based upon a re-examination of the type specimen that was deposited at Breslau.

One of the Appellants (Borgert, 1894a, 14-18) has divided *Doliolum* 1834 into two subgenera, *Dolioletta* and *Doliolina*. He designates genotypes for neither, but includes in *Dolioletta* the genotype of *Doliolum* 1834, and thus uses a new subgeneric name for what he apparently considers the typical subgenus of *Doliolum* 1834, a subgenus for which, on his own premises, he should have used *Doliolum* s. str. instead of proposing the new name *Dolioletta*. This latter point has apparently remained unnoticed by all his colleagues. Bartsch has brought it to the attention of the Commission.

On basis of the foregoing data, the Secretary recommends that the Commission adopt as its Opinion the following:

(1) According to the premises presented by the Appellants, *Doliolum* Otto, 1823, type *mediterraneum*, is a synonym of *Pyrosoma* 1804.

(2) *Doliolum* Quoy and Gaimard, 1834, is a homonym of *Doliolum* 1823, and as such should be rejected, unless it can be shown that a strict application of the Rules will result in greater confusion than uniformity.

(3) The presentation of the case by the Appellants is incomplete, as it fails to consider *Dolioletta* Borgert, 1894.

(4) The premise that a new name will have to be proposed for *Doliolum* 1834 is incorrect, for one of the Appellants has already proposed *Dolioletta* for the typical subgenus of *Doliolum* 1834, which presumably will supplant *Doliolum* 1834.

(5) If the Rules were suspended in order to validate *Doliolum* 1834, *Dolioletta* 1894 would fall into synonymy unless its genotype (apparently undesignated at present) is shown to belong in a genus or a subgenus other than that which contains *Dol. denticulatum* 1834. Accordingly, so far as data are available, *Doliolum* 1834 must be suppressed if the Rules are applied and *Dolioletta* 1894 must be suppressed if the Rules are suspended.

(6) If *Doliolum* 1834 is suppressed, *Dolioletta* 1894 can best be taken as the name of the genus (so far as the foregoing data show) and a new family name should then be based upon it. This is a

very simple and clear application of the Rules, and the evidence thus far presented does not carry with it a conviction that greater confusion than uniformity would thereby result.

(7) See also motion to table, page 69.

Opinion written by Stiles.

Opinion concurred in by 11 Commissioners: Allen, Bather, Blanchard, Hartert, Hoyle, Jordan (D. S.), Jordan (K.), Monticelli, Skinner, Stejneger, Stiles.

Opinion dissented from by 3 Commissioners, who vote to retain *Doliolum* Quoy and Gaimard, 1834, under Suspension of Rules: Apstein, Handlirsch, Kolbe.

Not voting, 4 Commissioners: Dautzenberg, Horváth, Roule, Simon.

CASE²⁷ OF *FRETILLARIA* 1842, *FRITILLARIA* 1851, *FRITILLARIA* 1872, AND *FRITILLUM* 1915

Quoy and Gaimard's (1833a, 10) original reference is to "notre genre Fretillaire que nous avons rencontré dans plusieurs mers, notamment aux environs du cap de Bonne-Espérance, ou il donnait à l'eau une teinte rouge brun, bien que chaque individu n'eût qu'une ligne de longueur." In a footnote on the same page they add: "C'est probablement le genre *Oikopleura* de Mertens," 1830.

In the same publication, Quoy and Gaimard (1833a, 304-306, pl. 26 figs. 4-7) discuss the new species *Oikopleura bifurcata* which presumably is the same form referred to on page 10 as "notre genre Fretillaire," although the name Fretillaire is not mentioned on pp. 304-306. Regarding *Oikopleura bifurcata* they say (page 304):

étant sur les sondes de banc des Aiguilles, en vue de terre, et vis-à-vis la baie d'Algoa, nous vîmes—par intervalle, dans d'assez grands espaces, et par zones, la mer devenir rouge brun. En y plongeant un filet d'étamins nous reconnûmes que cette couleur était due à une énorme quantité de petits animaux, longs d'une ligne ou deux, etc.

²⁷ *Fretillaire* Quoy and Gaimard, 1833a, 10, mt. *Oikopleura bifurcata* 1833a, 304-306, pl. 26 figs. 4-7 (Cape of Good Hope and Algoa Bay).

Fretillaria Agassiz, 1842a, Acalaphæ, 4, (for *Fretillaire* 1833, hence) mt. *Oikopleura bifurcata* 1833.

Fritillaria Huxley, 1851a, 595 (for *Fretillaire* 1833, hence) mt. *Oikopleura bifurcata* 1833.

Appendiculaires Fol, 1872a, 460, 492, family contains *Oikopleura*, *Fritillaria*, *Kowalewskia*; 1874a, xlix, adds *Appendicularia* n. g.

Fritillaria Fol, 1872a, 473-481, contains *furcata* (syn. *Eurycercus pellucidus* Busch, 1851), *megachile*, *aplostoma*, *formica*, *urticans*, (type not designated).—Apstein, 1915a, 186 cites *pellucida*, 1851, as type.

Fritillum Bartsch, 1915a, 145-146, tod. *Fritillaria megachile* 1872. (New name for *Fritillaria* 1872 not 1851.)

From the foregoing it is clear that, nomenclatorially, Quoy and Gaimard never proposed the genus *Fritillaria*, but that they used a provisional French name "Fretillaire," for a genus, and that they recognized this, prior to publication, as probably identical with *Oikopleura* Mertens, 1831.

The genus *Oikopleura* (see footnote 7) was published by Mertens (1831a, 205-220) as a monotypic genus based upon *O. chamissonis*, which Mertens considered identical with Chamisso's *Appendicularia flagellum* and which he therefore deliberately renamed.

Agassiz (1842a, 4) quotes the Latin name "*Fritillaria* Quoy et G. Zool. de l'Astr. Fretum, Beroidæ." Although he does not give page reference to Quoy and Gaimard it seems legitimate to conclude that he refers to Fretillaire 1833, p. 10, hence the type species of *Fritillaria* 1842 is *Oikopleura bifurcata* 1833.

Huxley (1851a, 595) refers to the genus "*Fritillaria* Quoy and Gaimard," for which he accepts the name *Oikopleura bifurcata*. Thus, *Fritillaria* 1851 equals *Fretillaria* 1842, with identical type species.

As shown above (footnote 6) Fol (1872a, 460) considered that since *Fritillaria* 1851 [Fretillaire 1833] was described in a manner that he considered vague, he had a right to use it in any way he desired, and he applied it to the species *F. furcata* (Vogt), and four new species; and later Fol (1874a, xlix), reaffirming his right to use, in any way he desires, names which he considers unrecognizable in their original application, continues to use *Fritillaria* in the sense he proposed in 1872.

Accordingly, *Fritillaria* 1872 should be construed as a new generic name that is preoccupied by *Fritillaria* 1851. The name *Fritillaria* 1872 has found its way into certain text books, such as Leunis (1883a), Claus (1885a), etc.

Apstein (1915a, 186) designates *F. pellucida*²⁸ Busch, 1851, as type of *Fritillaria* 1872.

Bartsch (1915a, 146) proposes the name *Fritillum* (tod. *Fritillaria megachile*) as substitute for *Fritillaria* Fol, 1872.

According to the premises presented by the Appellants:

(1) *Fritillaria* Huxley, 1851, would become synonym of *Oikopleura* Mertens, 1831 and (2) a new name would have to be given to *Fritillaria* Fol, 1872, in case the Rules are applied.

²⁸ Fol (1872a, 476) gives *Eurycercus pellucidus* Busch 1851, as synonym of his first species *F. furcata*.

In regard to the first premise, it may be pointed out that *Oikopleura* Mertens, 1831, is a monotypic genus based upon *Oik. chamissonis*, and further that *Oikopleura* is a deliberate renaming of *Appendicularia* Chamisso and Eysenhardt, monotype *Ap. flagellum* (renamed *Oikopleura chamissonis* with same type locality). The Appellants claim (see case of *Appendicularia*) that the type of this genus (*Ap. flagellum* [= *Oikopleura chamissonis*]) is not recognizable. Fol (1872a, p. 469) claims that *Oik. chamissonis* (= *Ap. flagellum* renamed) is one of the three species of *Oikopleura* [*i. e.*, *Appendicularia*] that is recognizable.

Accordingly, the Appellants' presentation of the case is not sufficiently clear to serve as final premises for decision.

If *Oikopleura bifurcata* is a true *Oikopleura*, *Fritillaria* 1851 becomes a synonym of *Appendicularia* 1820, since *Oikopleura* 1831 is *Appendicularia* 1820 renamed. Accordingly, under this premise, *Fritillaria* 1851 can become valid only in case its type species is placed in some genus or subgenus other than that to which *chamissonis* = *flagellum* is assigned.

The statement that another name would have to be used for *Fritillaria* 1872 was, on basis of the premises, correct, and Bartsch (1915a) has proposed such a name (*Fritillum*).

On basis of the presentation by the Appellants, supplemented by the foregoing data, the Secretary finds that:

- (1) The presentation of the case is incomplete;
- (2) If all of the essential facts are now before us, *Fritillaria* 1872 presents a very simple case that calls for the application of the Rule of Homonyms and the Law of Priority;
- (3) The Appellants have not yet shown that an application of the Rules in this case will result in greater confusion than uniformity, especially since a suspension of the Rules would tend to validate Fol's principle that when an author considers as obscure the description upon which a name is based, he is at liberty to use this name in any way he may desire.

On basis of the foregoing data, the Secretary recommends that the Commission adopt as its Opinion the following:

(1) As *Fritillaria* Huxley, 1851 (= *Fretillaria* Agassiz, 1842) is based upon an animal (*Oikopleura bifurcata*) with known type locality and said to occur in large numbers, it would appear possible to determine definitely what this organism is.

(2) If *Oikopleura bifurcata* is a true *Oikopleura*, *Fritillaria* 1851 becomes a synonym of *Appendicularia* 1820 (syn. *Oikopleura* 1831).

(3) *Fritillaria* Fol, 1872, is a homonym of *Fritillaria* Huxley, 1851, and should be suppressed unless it can be shown that a strict application of the Rules will result in greater confusion than uniformity. If suppressed, *Fritillum* 1915 is available as a substitute.

(4) See also recommendation to table, page 69 (below).

Opinion written by Stiles.

Opinion concurred in by 11 Commissioners: Allen, Bathier, Blanchard, Hartert, Hoyle, Jordan (D. S.), Jordan (K.), Monticelli, Skinner, Stejneger, Stiles.

Opinion dissented from by 2 Commissioners, who vote to retain *Fritillaria* Fol, 1874, under Suspension of Rules: Apstein, Kolbe.

Not voting, 5 Commissioners: Dautzenberg, Handlirsch, Horváth, Roule, Simon.

MOTION TO TABLE THE CASES OF *APPENDICULARIA*, *DOLIO- LUM*, *FRITILLARIA*, AND *SALPA*

Referring further to the cases of *Appendicularia* 1874, *Doliolum* 1834, *Fritillaria* 1851, and *Salpa* 1775, the Secretary recommends, on basis of reasons given below, that the Commission adopt as its Opinion the following:

(1) The Appellants have not presented evidence that convinces the Commission that the strict application of the Rules in these cases will result in greater confusion than uniformity, hence the Commission does not at present see its way clear to suspend the Rules.

(2) The cases in question are herewith laid upon the table indefinitely, but without prejudice, in order to give to the Appellants an opportunity to present more satisfactory and convincing evidence in support of their position.

(3) The Commission is of the opinion that the complaints in respect to confusion in the nomenclature of the Tunicates are due to two causes in particular, namely (a) the principle of genotypes does not appear to have been consistently applied, and (b) rules available to authors of new names have not been adopted by said authors.

(4) The Commission urgently recommends that specialists in the tunicates determine without unnecessary delay the proper genotypes, in accordance with Article 30 of the Rules, as a prerequisite to a satisfactory basis for an intelligent consideration of the nomenclature of the group.

REASONS FOR THE FOREGOING RECOMMENDATION.—The foregoing recommendation is based upon the following premises:

(1) If any serious attempt has been made to apply the Rules consistently to the tunicate generic names by designating the genotypes in accord with Article 30, this fact has not been brought to the attention of the Commission, accordingly, specialists in this group do not appear to have brought their subject to the point where it seems wise to set an example that might inhibit or handicap thorough nomenclatorial work of that kind.

(2) The presentation of the cases as submitted by the Appellants has been shown to contain a number of errors, and to be very incomplete.

(3) Only four of the Commissioners (one of these is also one of the Appellants) in their preliminary expression of opinions, appear to be inclined to the view that more than one of the six cases submitted call for a possible suspension of the Rules, accordingly, if these cases come to final vote at present, they are doomed to rejection.

(4) As these are the first cases brought forward for action under the Plenary Power, the Appellants were at a disadvantage in not having precedents upon which they might judge the policy of the Commission, hence they had no way of knowing how complete or convincing an argument might be necessary to induce the Commission to suspend the Rules.

(5) By laying these cases on the table, instead of rejecting them, the Commission will not only establish the precedent that suspension will not be looked upon favorably on basis of incomplete data, but it will escape the possible misinterpretation of doing an injustice to a group of men by rejecting their proposition before they had any way of knowing the policy the Commission would adopt in construing its duty under the Plenary Power resolutions.

(6) Finally, if the cases are tabled instead of being rejected, the Commission can act upon them without further public notice.

Motion concurred in by 11 Commissioners: Allen, Bather, Blanchard, Hartert, Hoyle, Jordan (D. S.), Jordan (K.), Monticelli, Skinner, Stejneger, Stiles.

Not voting, 7 Commissioners: Apstein, Dautzenberg, Handlirsch, Horváth, Kolbe, Roule, Simon.

The final results are as follows: The cases of *Appendicularia* 1874, *Doliolum* 1834, *Fritillaria* 1851, and *Salpa* 1775, are tabled without prejudice in order to give the Appellants an opportunity to present more satisfactory and convincing evidence in support of their position.

The case of *Pyrosoma* is decided in harmony with the Code, and the result is identical with what the Appellants desired to obtain under Suspension.