

SMITHSONIAN MISCELLANEOUS COLLECTIONS

VOLUME 73, NUMBER 7

OPINIONS RENDERED BY THE INTERNATIONAL
COMMISSION ON ZOOLOGICAL
NOMENCLATURE

OPINIONS 115 TO 123



(PUBLICATION 3072)

CITY OF WASHINGTON
PUBLISHED BY THE SMITHSONIAN INSTITUTION
JANUARY 10, 1931

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BALTIMORE, MD., U. S. A.

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OPINION 115

STATUS OF *Leucochilus*

SUMMARY.—The Commission herewith suppresses *Leucochilus* von Martens, 1881, in favor of *Leucochila* von Martens, 1860, type *Pupa fallax* Say. Any other course would involve risk of lasting and constant confusion in two rather closely allied genera.

STATEMENT OF CASE.—Dr. H. A. Pilsbry, of the Academy of Natural Sciences of Philadelphia, has presented the following case for opinion:

Leucochila was proposed by von Martens (Die Heliceen, 1860, p. 296, "Typus *Pupa fallax* Say") for two series of species (now ranked as two genera): *a*, which we may call the series of *Pupa fallax*, and *b*, that of *Pupa armifera*.

In 1881 (in von Martens' Conchologische Mittheilungen, p. 64) Dr. O. Boettger proposed to relegate the group of *Pupa fallax* to the prior genus *Buliminus*, and to retain the name *Leucochilus* for the relationship of *Pupa armifera*. At the same time, he cited *Leucochila* von Martens as equivalent to *Leucochilus*, as in the appended facsimile:

"II. Sect. *Leucochilus* m.

"= *Leucochila* Albers-Martens, Heliceen II. Ausg. 1860, S. 296.

"Indem ich die ungezähnten Arten der Gruppe der *P. fallax* Say aus vorbenannter Section ausscheide und sie als Section zur Gattung *Buliminus* Ehrenb. verweise, halte ich die Benennung *Leucochilus* nur für die meist bleichgefärbten, stark bezahnten, mit kräftiger, geschwungener, häufig zweitheiliger Parietal-lamelle versehenen Formen der Verwandtschaft der *P. armifera* Say aufrecht."

Q.—Can *Leucochilus* stand for the *Pupa armifera* group? Or is it synonym of *Leucochila*? Or to be rejected as homonym of the prior *Leucochila*?

Observations.—Usage is divided. Several German authors have used *Leucochilus* in the sense of Boettger. All recent American authors who have dealt with the group have apparently thought that name unavailable, having used the later name *Bifidaria* Sterki for the group containing *Pupa armifera*.

No type species has been designated for *Leucochilus* except as implied in the above extract.

The name *Bifidaria*, for the same group, was properly defined and supplied with a type. As the group is chiefly American, and does not occur in the European fauna, no name for it can be said to be generally accepted in Europe, nearly all authors mentioning the species using von Martens' nomenclature of 1860.

DISCUSSION.—The foregoing case includes two distinct questions. First, is *Leucochilus*, 1881, an objective synonym of *Leucochila*, 1860? And second, is *Leucochilus*, 1881, a homonym of *Leucochila*, 1860?

First.—According to the premises, *Leucochila*, 1860, has *Pupa fallax* as type by original designation and this type designation settles for all time the type of *Leucochila*.¹

In 1881 *Leucochilus* is essentially a new generic name, and as *Pupa fallax* is expressly excluded by Boettger from membership in *Leucochilus*, it is clear that *Leucochilus* cannot have *fallax* as its type, and therefore that it is not an objective synonym of *Leucochila*.

For *Leucochilus*, 1881, only one species was mentioned in the original publication, namely, *Pupa armifera* Say, and this is therefore type of *Leucochilus* by monotypy.

If *fallax* and *armifera* are united in one genus, *Leucochilus*, 1881, becomes a subjective synonym of *Leucochila*, 1860.

Accordingly, the first question is to be answered as follows: *Leucochilus*, 1881, is theoretically excluded from being an objective synonym of *Leucochila*, 1860, but theoretically it might be a subjective synonym.

Second.—The second question, whether the existence of *Leucochila* precludes the use of *Leucochilus*, represents one of a series of cases which the Commission has discussed for more than 25 years, but upon which the Commission has never been able to reach a satisfactory agreement involving an Opinion that can be applied to all cases. The best the Commission has ever been able to do is expressed in the recommendation of Article 36, which reads as follows:

It is well to avoid the introduction of new generic names which differ from generic names already in use only in termination or in a slight variation in spelling which might lead to confusion. But when once introduced, such names are not to be rejected on this account. Examples: *Picus*, *Pica*; *Polyodus*, *Polyodon*, *Polyodonta*, *Polyodontas*, *Polyodontus*.

In this unsatisfactory status of the results, all the Commission can expect to do is to build up a series of Opinions on special cases in the hope that these Opinions can some day be formulated into a principle. On one occasion a special subcommittee studied the question at issue and reported as follows:

The Committee is of the opinion that the use of a word as a generic name in one gender does not necessarily preclude its use in a different gender for another genus, but it considers such use eminently undesirable.

¹ *Leucochila* Albers in Von Martens, 1860, 296, tod. *Pupa fallax* Say—
a—for *fallax*, *modica*, *chordata*, *pacifica*.
b—*pellucida*, *riisci*, *corticaria*, *ripicola*, *contracta*, *armifera*.

In the case now before the Commission, it would appear from the premises that *Leucochila* and *Leucochilus* represent very closely allied groups. So closely allied, in fact, that the possible concurrent use of the two names might lead to serious confusion if both names were to become valid. If these two names belonged in widely different groups, for instance, in mammals and sponges, the chances for confusion would be very much reduced and another point of view might, perhaps, be entirely justified. The case represents, in fact, one very similar to *Endamocba* and *Eutamocba* and on practical grounds it is in the interest of clarity that *Leucochilus* be definitely suppressed.

Accordingly, the Secretary recommends that the Commission adopt as its Opinion the following:

1. *Leucochilus*, 1881, is theoretically excluded from being an objective synonym of *Leucochila*, 1860, but it might be, theoretically a subjective synonym; and

2. For the purpose of this Opinion, and on practical grounds (in order to prevent confusion), the Commission herewith considers *Leucochilus*, 1881, a homonym of *Leucochila*, 1860, and therefore not entitled to stand.

Opinion written by the Secretary.

The foregoing draft of Opinion was forwarded to B. B. Woodward of London, England, with request that he give the Commission the benefit of his views. He replied as follows:

Leucochilus and *Leucochila* are absolute homonyms. They are merely the masculine and feminine forms of one and the same name.

It is too generally overlooked that these inflections of gender were universally held by the early systematic zoologists to be such and not to qualify in any way for generic distinction. To alter this now would create an untold amount of disturbance in past nomenclature, which is quite unjustifiable and would be mischievous.

The framers of the original Rules were all good systematic zoologists as well as good scholars. They took this view so much as a matter of course that they did not think of specifying anything so obvious to them in their Rules. They never dreamt that a later school of enthusiastic but less well-informed naturalists (zoologically and classically) would arise to challenge it.

The Recommendation attached to Rule 36 does not really touch the present or similar cases, of which there are far too many for a piecemeal consideration of them to be profitably undertaken.

In my opinion the Commission would be best advised, taking advantage of the present instance, to lay down the principle that: "Names of genera differing only in their termination, when that is indicative solely of gender, cannot be employed for distinct genera, but must be considered to be homonyms." Occasion might be taken to point out that the frequently misquoted case of *Picus* and *Pica* does not apply here since these names are two distinct Latin substantives, not modern makeups and not merely variations in gender of one and the same word.

All papers were then forwarded to Commissioner Chapman for review and opinion. His report reads as follows:

Re *Leucochila* and *Leucochilus*, after examining the evidence for and against the use of *Leucochilus* Boettger, I have drawn the following conclusions:

1.—Since *Leucochilus* was suggested by Boettger as an equivalent term to *Leucochila* (but with emended spelling), of the section *P. armifera*, it is clearly a homonym of *Leucochila*.

2.—*Leucochilus* only differs in generic ending, and therefore it is inadvisable to retain it in such closely related groups where it would be a source of confusion.

3.—For the above reason that *Leucochilus* Boettger must be taken as a homonym, I would suggest the use of *Bifidaria* Sterki, as it has been properly defined and supplied with a type.

The papers were submitted also to Dr. Paul Bartsch, United States National Museum, who writes:

I have talked this matter over with Dr. Dall and we both agree with you.

With the foregoing data, the Secretary requested an informal ballot from the Commission. As basis for the vote the Secretary proposed the following summary:

Upon utilitarian grounds, regardless of all other considerations, the Commission hereby declares *Leucochilus*, 1881, as suppressed in favor of *Leucochila*, 1860; any other action would involve risk of lasting and constant confusion in two rather closely allied genera.

In Circular Letter No. 156, the Secretary reported as follows:

Eight (8) Commissioners (Chapman, Dabbene, Horvath, Neveu-Lemaire, Stiles, Stone, and Warren) accept the Opinion as written, without comment.

Three (3) Commissioners accept the general result of the Opinion, but comment as follows:

Hartert: Opinion concurred in "but NOT ON UTILITARIAN GROUNDS which is absolutely dangerous and objectionable! It is not in the conception of the 'Rules.'" [But cf. wording of suspension—C. W. S.]

Jordan (David Starr): "I vote with the affirmative on the view that the suspension of *Leucochilus* will avoid confusion. It is now on the basis that new names for new genera should not be formed by change of gender of old names. *Gasterosteia* Sauvage (not valid) was proposed for a section of *Gasterosteus*. But I shall vote that names differently spelled (except through carelessness) are different names until we have a definite decision. It is not, as Mr. Woodward writes, a matter of 'ignorance.' I am willing to take either view if properly defined and a majority agrees. In Ichthyology we have some 40 cases and an agreement is very desirable."

Jordan (Karl): "From the facts

(1) That Boettger says: 'ich halte die Benennung *Leucochilus* für . . . aufrecht' and

(2) That Boettger states *Leucochilus* = *Leucochila* Albers-Martens, it follows that Boettger did not propose a new name, but retained the old

name in an emended form. Such emendations were quite in vogue until recently. But an emended name is not a new name and is nomenclatorially identical with the name in its original spelling.

The question as to whether generic names differing in endings only should be treated as different does not arise here at all."

Commissioner Apstein writes: "*Leucochila* v. Martens und *Leucochilus* Boettger sind 2 verschiedene Namen und können deshalb neben einander bestehen." In reply to this note the Secretary wrote to Commissioner Apstein, "I interpret your vote as negative in the case of Circular Letter No. 131," to which Commissioner Apstein replied, "Ich stimme zu, *Leucochilus*, 1860." The Secretary is not yet clear in regard to Commissioner Apstein's vote but he interprets it again as permitting *Leucochilus*, 1881, and *Leucochila*, 1860, to exist together under the conditions mentioned in Circular Letter No. 131.

As eight (8) Commissioners agreed without reservation, as one Commissioner objected simply to the expression "upon utilitarian grounds," and as two other Commissioners agreed as to the end result, the Secretary suggested that the summary be amended as follows:

Alternative A.—SUMMARY: The Commission herewith suppresses *Leucochilus*, 1881, in favor of *Leucochila*, 1860; any other action would involve risk of lasting and constant confusion in two rather closely allied genera.

The foregoing summary would seem to meet the objection offered by Commissioner Hartert, and would also meet the viewpoint of Commissioner Karl Jordan, while it would at the same time give the result desired by all of the other Commissioners who voted in the affirmative. In case the Secretary has misinterpreted Commissioner Apstein's position, this summary would appear to meet his views also.

An alternative to the foregoing summary might read as follows:

Alternative B.—SUMMARY: *Leucochilus*, 1881, can be interpreted as an emendation of *Leucochila*, 1860; Boettger, 1881, inadvertently fell into error when he eliminated the type species *fallax*, from *Leucochila*.

The Secretary is prepared to change his vote to conform to this second summary in case a majority of the Commission prefers this to Alternative A. Under these circumstances he would rewrite and resubmit the Opinion.

Opinion prepared by Stiles.

Alternative A was approved by a vote of 13 to 1 as follows:

For Alternative A, thirteen (13) Commissioners: Apstein, Chapman, Dabbene, Handlirsch, Hartert, Horvath, Ishikawa, Jordan (D. S.), Jordan (K.), Silvestri, Stiles, Stone, Warren.

For Alternative B, one (1) Commissioner: Bather.

Not voting, four (4) Commissioners: Kolbe, Loennberg, Neveu-Lemaire, Stejneger.

OPINION 116

Bulinus SCOPOLI, 1777, vs. *Bulinus* MUELLER, 1781, vs.
Bulinus BRUGUIÈRE, 1792

SUMMARY.—The Commission does not interpret *Bulinus* Scopoli, 1777, as an obvious typographical error; the premises do not show that the genotype (which must be selected from the four originally included species) has been definitely and properly designated. *Bulinus* Mueller, 1781, has for its type *Bulinus senegalensis*, and is not invalidated by *Bulinus*, 1777. *Bulinus* Bruguière, 1792, type *haemastomus* seu *oblonga* is a dead homonym of *Bulinus*, 1777.

STATEMENT OF CASE.—Dr. H. A. Pilsbry, of Philadelphia, presents the following case for Opinion:

The questions the Commission is asked to decide are:

1. Can *Bulinus* Scopoli, 1777, be retained with its original orthography and restricted to one of the four Linnean species mentioned by Scopoli?
2. Will the use of *Bulinus* O. F. Mueller, 1781, be considered inadmissible on account of the prior *Bulinus*?¹
3. Can *B. senegalensis* O. F. Mueller, properly be considered type of *Bulinus* Mueller, thus preserving the traditional meaning of the term?

The name "Le Bulin, *Bulinus*" was introduced by Adanson in his *Histoire nat. du Sénégal, Coquillages*, 1757, p. 5, pl. 1. His work was pre-Linnean, but its nomenclature was in the main Linnean. He recognized genera and species, each denoted by single terms, but he did not use them in combination, and in the case of monotypic genera, such as *Bulinus*, *Corctus*, *Pedipes*, he did not name the species further, the generic term serving for both genus and species.

The first post-Linnean author to take up the matter was Scopoli, *Introductio ad Historiam Naturalium*, 1777, who on p. 392 introduces:

"64. *Bulinus*. Adans. Testa univalvis, non umbilicata; apertura ovali. Mollusculum tentaculis binis, basi appendiculatis; puncto ophthalmoides distincto aut radicali Swammerdam. Tab. IX. Fig. 4.

"*Helix putris* Linn., 1758a, 774, *fragilis* Linn., 1758a, 774, *stagnalis* Linn., 1758a, 774, *tentaculata* Linn., 1758a, 774, nec non aliae non paucae terrestres Cl. Müllerii.

"*Pedipes* Adanson, diversus Testae apertura dentata."

The generic characters given apply well to the species he mentioned, which belong to three modern genera:

Helix putris to *Succinea*.

Helix fragilis and *stagnalis* to *Lymnaea*.

Helix tentaculata to *Bithynia*.

Scopoli did not refer to Adanson's species except so far as may be implied by adopting a modification of his name. [His differential diagnosis, as respects *Pedipes*, is in harmony with Adanson, 1757, pp. 6, 12.—C. W. S.]

¹ The names *Bulinus* and *Bulimus* have been in common use, without confusion, for about a century, for different genera of mollusks.

Scopoli subsequently used *Bulinus* for a land snail similar in general shape to the species he had formerly included, but afterward found to be generically distinct. The name *Bulinus* remained in universal use for this last group until quite recent times.

Dall, 1892, Trans. Wagner Free Inst. Sci., vol. 3 (2), pp. 334-335, thought that *Bulinus* would have to be restricted to *Helix tentaculata*, though he did not expressly name that as its type.

A similar view was taken by Pilsbry, 1895-96, Manual of Conchology (2nd ser.), vol. 10, p. 3, who wrote:

"As Scopoli quotes the name as of Adanson, it has been surmised that '*Bulinus*' was a typographical error for '*Bulinus*.' Whether this was the case or not would have absolutely no effect upon our use of the name, for (1) Scopoli's group does not rest upon Adanson for its elucidation, nor does he refer to Adanson's page or plate; (2) that it was a typographical error cannot be proven; it may have been an emendation on etymological grounds and Scopoli's subsequent use of the same orthography would show it to have been a deliberate change; and finally (3) Adanson being pre-Linnean cannot prejudice properly proposed post-Linnean names.

"It would appear that *Bulinus* Scopoli, by process of elimination, must replace the generic name *Bithynia*."

Kennard and Woodward, Proc. Malacological Society of London, December, 1924, vol. 16, p. 126, have reviewed the several opinions on *Bulinus* Scopoli, concluding that "*Bulinus* was an obvious mistranscription for *Bulinus*; it must be treated as such, and discarded in future literature."

It may be remarked here that if *Bulinus* be synonymized with *Bulinus* Adanson, its type will become *Bulinus senegalensis* Mueller, and unless the name be emended, it will displace the genus *Bulinus* O. F. Mueller, 1781, a name very widely used in zoological and medical literature.

Bulinus O. F. Mueller

Bulinus "Adanson" O. F. Mueller, 1781, Der Naturforscher, vol. 15, pp. 5 and 6. For four species: *Bulinus perla* (= *Physa fontinalis* (Linnaeus)), *B. turritus*, *B. gelatinus*, and *B. senegalensis* (this last based upon Adanson's "le Bulin, *Bulinus*"). Type by tautonymy: *Bulinus senegalensis* O. F. Mueller, "le Bulin" of Adanson.

The name *Bulinus* was introduced into binomial nomenclature by O. F. Mueller. He states that his intention was to provide genera for the fresh-water snails with two bristle-shaped tentacles with eyes at their inner bases. He suggests that the "Tellerschnecken" keep the name *Planorbis* while Adanson's name *Bulinus* could be accepted for the "Eyförmigen."¹ Of the latter, four species were known to him. The *Bulinus perla* was fully described and figured, and is recognized to be *Physa fontinalis* (Linn.). This species was designated type of *Bulinus* by Hermannsen (1846, Index Gen. Malac., vol. 1, p. 140).

¹ "So kann doch bis dahin, den Schneckenliebhabern zu Gefallen, die den Begriff einer Tellerschnecke bey dem Eyförmigen nicht ausstehen können, der Name Tellerschnecke denen mit platter Schaafe verbleiben, und die mit länglichen Schaaalen den Adansonischen Namen *Bulinus* annehmen." (1781, Der Naturforscher, Halle, vol. 15, p. 6.)

Mueller's fourth species was *Bulinus senegalensis* defined by a reference to Adanson, 1757, Hist. Sénégal, Hist. des Coquillages, p. 5, pl. 1. He also states that "*Adanson erfand ihr einen neuen Geschlechtsnamen (Bulinus).*" Obviously, therefore, Adanson's *Bulinus* becomes type of *Bulinus* by absolute tautonymy¹ Otherwise the name *Bulinus* Mueller, 1781, would supersede *Physa* Draparnaud, 1801, a name very widely used and universally accepted.

The status of *Bulinus* Mueller has been discussed by Von Martens,² who accepted *Physa fontinalis* as its type, but refused to substitute *Bulinus* for *Physa*. Later, Dall³ went over the ground, reaching a conclusion which we accept without reserve. Finally Kennard and Woodward⁴ considered the question, concluding that Mueller's "adoption of Adanson's name (*Bulinus*) involves the acceptance of his shell as the type of the genus. Since, however, that is indeterminate, this post-Linnean revival of the name is rendered nugatory. But for that, *Bulinus* Mueller would have precedence of *Physa* Draparnaud, 1801."

This conclusion seems to us incorrect in at least two statements. Adanson's species has been determined. It was defined very well, and with specimens from the type locality, no zoologist should go astray in its identification. Its acceptance does not displace *Physa*, but on the contrary, if it were to be thrown out as indeterminate, then *Bulinus* would take the place of *Physa* having *Physa fontinalis* as its type. The International Rules expressly exclude indeterminate species [or, rather, species inquirendae from the standpoint of the author of the generic name at the time of its publication.—C. W. S.] from consideration in the selection of genotypes.

Bulinus came into general use for the group under consideration and is to be found in the most widely used systematic works on general conchology, such as H. and A. Adams, Genera of Recent Mollusca; Tryon, Structural and Systematic Conchology; Fischer, Manuel de Conchyliologie, and others.

The new name (or emended spelling) *Bullinus* originated with Oken, 1815, and in recent years has been taken up by several authors. Oken's work was a mere compilation from Mueller; only the same species were mentioned. The revival of Oken's name for the group was apparently due to the fact that Adanson, being pre-Linnean, could not properly be quoted for the genus, and to ignorance of the prior work of Mueller. *Bullinus* Oken, according to the Rules of the International Commission, is an absolute synonym of *Bulinus* Mueller.⁵

DISCUSSION.—The following facts (a, b) may be noted in regard to the derivation of the names:

(a) *Bulinus* Mueller, 1781.—Adanson, 1757, p. 5, states:

Le Bulin, *Bulinus*. Pl. 1. Je donne le nom de Bulin à un petit coquillage d'eau douce, qui vit communément sur la lentille de marais, et sur le lemma, dans les marais et les étangs de Podor. Cette dénomination m'a paru lui convenir par-

¹ This conclusion is based upon the International Code of Zoological Nomenclature, Art. 30d, and Opinions 16 and 18.

² 1898, in P. and F. Sarasin, Materialien z. Naturg. Insel Celebes, Die Süsswässer-Moll., p. 83.

³ 1905, Harriman Alaska Exped., Land and Fresh-Water Moll., p. 105.

⁴ 1920, Proc. Malac. Soc. Lond., vol. 14, pp. 86-88.

⁵ The combination "*Bullinus* Adanson" used by some authors is ruled out because it is erroneous—Adanson never used "*Bullinus*"—and because a pre-Linnean author is not quotable as authority for generic or specific names.

ceque l'animal pendant sa vie nage presque continuellement à fleur d'eau, et qu'après sa mort sa coquille flotte comme une petite bulle d'air transparente. Je n'ai observé qu'une espèce de ce genre, et elle n'est figurée ni décrite nulle part.

From this it seems clear that "Le Bulin, *Bulinus*" means a little bubble, namely, the diminutive of the French "la bulle," Latin, "*bulla*."

As Adanson uses the correct orthography of the word "la bulle" on page 5, and as he consistently uses "Le Bulin, *Bulinus*" in at least three different places, and the French word "bulin" in a fourth place also, it seems obvious that he intended to coin a new French masculine noun "le bulin" as name for this mollusk and that he made his Latin diminutive *Bulinus* agree with the French in form rather than adopt a Latin feminine noun, *bullina* based on the Latin feminine *bulia*. Accordingly, the word *Bulinus* is a relatively modern, 18th century, Latin name. It is to be noted that Adanson had rather advanced views on nomenclature and sought to use names which were not preoccupied. For instance, he says (p. XVIII): "J'agirai de même à l'égard des noms adjectifs, tels que la tuillée, la chambrée, la tanée, etc. Je leur substituerai un terme neuf, qui n'aura eu jusqu'ici aucune signification."

Agassiz, 1842-46a, 13, interprets *Bulinus* as a corrupted derivative of *Bulla*.

(b) *Bulinus*.—According to Agassiz, 1842-46a, 13, Herrmannsen, 1846, 147, and Leunis, 1883a, 887, *Bulinus* is derived from the Greek βούλιμος, meaning a ravenous hunger. Compare the medical terms bulimia, bulimiasis, bulimy, and bulimic, namely, an excessive or morbid hunger which sometimes occurs in idiots and insane persons and is also a symptom of diabetes mellitus and of certain cerebral lesions.

(c) The Secretary has examined the original documents with the following results:

(d) *Bulinus* Adanson, 1757, 5-7, pl. 1, is a pre-Linnean monotypic generic name without nomenclatorial status under the Code but available, of course, as bibliographic reference.

(e) *Bulinus* Scopoli, 1777, 392, is cited without philologic derivation and attributed to "Adans." The original species of Adanson's "Le Bulin" is not cited nor is any definite reference given to "Adans." It is entirely possible that *Bulinus*, 1777, is a mistranscription or a misprint for *Bulinus*, 1757, and in fact, Kennard and Woodward, 1924, Proc. Malac. Soc. Lond., p. 127, have made out a very strong case for this interpretation in reproducing on p. 127 the figures of Adanson and calling attention to the printing of *Bulinus* Adanson

and *Pedipes* Adanson. It would take an almost microscopic eye to read correctly *Bulinus* instead of *Bulimus*; this error would however not be so natural in reading the original text of Adanson and it is safeguarded against in the original illustration by use of the word "Le Bulin." While it seems very reasonable to conclude that *Bulimus*, 1777, is a mistranscription or a misprint for *Bulinus*, 1757, the fact remains that Scopoli, in 1786, pl. 25, again used the name consistently as *Bulimus* and that in 1777 he did not quote Adanson's species. The Secretary is inclined to believe that *Bulimus*, 1777, is either a misprint for or an emendation of *Bulinus*, 1757, but he is persuaded that the absence of Adanson's species from the list admitted by Scopoli is to be given serious consideration, thus excluding *B. senegalensis* as type of *Bulimus*, 1777.

Only four species come into consideration as type of *Bulimus*, 1777, namely, *Helix putris*, *H. fragilis*, *H. stagnalis*, *H. tentaculata*, all Linn., 1758a, p. 774. The citation of *Bulimus haemastomus* as type by Beck, 1837, (possibly based upon Bruguière, 1792a, 294) and the citation of *Helix oblonga* as type by Herrmannsen, 1846, are both irrelevant, as neither species was included in the original publication of *Bulimus*. It is to be added that Apstein, 1915a, p. 182, cites *oblongus* Mueller, 1774, as type of *Bulimus* and that this species is used by at least some authors as identical with *haemastomus* Scopoli.

Dall, 1892, clearly inclines to *tentaculata* as type, but as the Secretary reads his paper, Dall does not definitely designate this species as type under Article 309 of the Code, and he (Dall) thinks that no harm would be done if *Bulimus* is eventually suppressed.

The documents presented to the Secretary do not show that the type of *Bulimus*, 1777, has been correctly and definitely designated.

(f) *Bulinus* Mueller, 1781, Naturf., 5, is clearly based upon *Bulinus* Adanson, 1757, p. 5, pl. 1; it contains four species including (1) *B. perla* Muell., 1781, syn. *Planorbis bulla* Mueller, 1774, 167, and later considered synonymous with *Physa fontinalis* (Linn., 1758a, 727), (2) *B. turritus*, (3) *B. gelatinus*, and (4) *B. senegalensis*. The fourth species *senegalensis* is the original "Le Bulin" of Adanson. Mueller does not definitely designate a type and on basis of his publication two interpretations might be possible, namely, on page 5, referring to *Bulinus perla* he says "Adanson 1757, 5, pl. 1, 'Le Bulin,' *Bulinus* erfand ihr einen neuen Geschlechtsnamen (*Bulinus*)," and he includes "Le Bulin," as one of the species. Accordingly, one might argue that Mueller's type is *B. perla* syn. *bullata* on basis of the sentence just quoted; or one might argue that *B. senegalensis* is type by absolute tautonymy (cf. Opinion 16). The Secretary inclines distinctly

toward the latter interpretation unless this be contraindicated by data not contained in the statement of the case.

The statement of the case does not show that the designation of *Physa fontinalis* by Von Martens, 1898, as type of *Bulinus* is admissible, as Von Martens' premises are not submitted. Unless Von Martens recognized *perla* as objective synonym of *fontinalis*, this type designation is debatable.

(g) In nomenclatorial discussion of *Bulinus*, the point appears not to have been duly considered that Bruguière, 1792a [1789], pp. 286-367, proposed as a new molluscan genus "Buline.—*Bulinus*; Nob.," with 113 species, and that as he uses *Bulinus* and buline, in numerous places, the question of a typographical error appears to be excluded. On page 367, he cites "Bulin, (voyez) à l'article, Bulime des fontaines," namely (p. 306) "*Bulinus fontinalis*; Nob.," where he quotes "*Bulla fontinalis* Linn.," "*Planorbis bulla* Mueller," "*Die Wasser-blase; die Perlen-blase . . .*, La bulle aquatique" in synonymy; he also says (p. 307) "L'espèce que M. Adansson a observée dans les eaux marécageuses du Sénégal, & qu'il a nommée le bulin, est différente du Bulime des fontaines. . . . [p. 308] Je crois donc que ce sont trois espèces [cf. Bulin of Adanson; 'Buline de la Virginie' of Lister and Petiver] bien distinctes qu'il faut encore examiner avec soin & comparer, les unes avec les autres, avant de les distinguer par des phrases caractéristiques; celle de M. Adansson ne me paroît bien douteuse, mais je ne pense pas de même de celle de Lister, . . ."

Accordingly, "le bulin" of Adanson is *sub judice* from the standpoint of Bruguière in establishing his genus *Bulinus*, and he seems definitely to exclude it from *Bulinus fontinalis*, but he does not appear to classify it definitely as a distinct species of *Bulinus*; however, he states (p. 307) that it "a tant d'analogie avec le Bulime des fontaines."

Thus, under Art. 30c, Adanson's species appears to be eliminated from consideration as type of *Bulinus* Brug., 1792.

Bruguière definitely states (p. 294) "le nom de *Buline* que j'ai adopté pour ce genre, avoit déjà été employé par M. Scopoli pour le *Buline oblong*; je l'ai conservé, parcequ'il indique son analogie avec celui de la *bulle*, à cause de l'ouverture entière, sans échancrure, qui est commune à tous les deux." This comes very close to being a designation of *oblongus* (cf. *haemastomus* Scopoli) as type species.

Accordingly, if the view advanced by Kennard and Woodward (1924, 126) be adopted (that "*Bulinus* [Scopoli, 1777] was an obvious mistranscription for *Bulinus* [1757; 1781]; it must be treated

as such, and discarded in future literature”), the generic name *Bulimus* Bruguière, 1792, comes up for consideration, since the question of a typographical error in Bruguière is obviously excluded.

The Secretary frankly admits that there are two sides to this case and that a decision in either direction might not be entirely free from the interpretation that it is in the light of settling a controversy rather than in the light of an argument based on unambiguous premises. Close decisions, more or less arbitrary and not entirely free from utilitarian influence, are sometimes necessary and the following recommendations are not entirely free from this construction.

On basis of the foregoing discussion the Secretary recommends that the Commission answer Doctor Pilsbry's questions as follows:

1. *Bulimus* Scopoli, 1777, may or may not be a typographical error for or an emendation of *Bulinus* Adanson, 1757; the question is not entirely free from doubt. If it be interpreted as a typographical error the problem at issue is not solved, for *Bulimus* Bruguière, 1792, is obviously not a typographical error.

2. The data submitted do not show that the type of *Bulimus*, 1777, has ever been properly and definitely designated.

3. *Bulimus haemastomus* seu *B. oblongus* is not available as type of *Bulimus*, 1777, so far as the premises show, but is available as type of *Bulimus*, 1792, and this designation is in harmony with Bruguière, 1792a, p. 294.

4. Under Opinion 16, *Bulinus* Mueller, 1781, has for its type *B. senegalensis*, and the Commission so rules.

5. As either of two rulings is possible in respect to *Bulimus*, 1777, the Commission here rules that this is not an obvious mistranscription or an obvious typographical error. This ruling is based upon the following premises:

- a.—In case of difference of opinion, it seems best to give the benefit of doubt to the view which will be more in harmony with current nomenclature, and this interpretation is according to the premises submitted.

- b.—The preponderance of evidence seems to be in favor of this view.

- c.—The original *Bulinus*, le bulin, 1757, is not cited with *Bulimus*, 1781, hence this is not available as the type of the latter.

- d.—If *Bulimus*, 1777, be interpreted as a typographical error, *Bulimus*, 1792, remains to be considered, and no reason has been advanced in the premises which shows the advisability of sacrificing the advantage of 15 years in priority.

e.—Under the premises submitted, not one of the species (*putris*, *fragilis*, *stagnalis*, *tentaculata*) cited under *Bulimus*, 1777, is available as type for *Bulimus*, 1781, and not one of the species (*perla*, *turritus*, *gelatinus*, *senegalensis*) cited under *Bulimus* in 1781 is available as type for *Bulimus*, 1777. Accordingly, it appears (under Art. 30c) that an objective identity of these two generic names is excluded.

In connection with the foregoing recommendations the Secretary states very frankly that there are phases of this case of nomenclature which are open to debate. In the recommendations that have been made and where he had the option of adopting either of two interpretations he has been influenced by the principle of endeavoring not to overturn existing nomenclature any more than is absolutely necessary. The generic name Le Bulin, *Bulinus* Mueller, 1781, as typified by *B. senegalensis*, belongs to the Order PULMONATA, subo. BASOMMATOPHORA.

Bulimus Scopoli, 1777, if *Helix tentaculata* be accepted as type, would belong to the Order PROSOBRANCHIATA.

Bulimus of Scopoli, 1786, if typified by *B. haemastomus* (syn. of *oblonga* Mueller), would belong to Order PULMONATA, subo. STYLOMMATOPHORA.

This species belongs to a modern family distinct from any family represented in the 1777 list of four species. It was the group represented by Scopoli's 1786 usage which Bruguière had mainly in mind, and which came into general use as *Bulimus* and continued under that name until about thirty years ago. From Scopoli's standpoint, his *Bulimi* of 1777 and 1786 were congeneric—he was merely forming a new genus for the *elongated* species of Linnean *Helix*—leaving the Linnean term for the depressed and discoidal forms. Dall's suggestion to restrict *Bulimus* Scopoli, 1777, to *Helix tentaculata* was to avoid displacing either of the old and universally used names *Succinea* or *Lymnaea*; the *H. tentaculata* group (*Bithynia*) being later and comprising relatively few species.

To interpret *Bulimus* as a misprint or as an error of transcription, as might easily be done, would call for the use of *Bulinus* in its place, thus bringing about a very regrettable instance of transfer of name in a genus which is reported to contain more than 1,200 species. When two theoretical interpretations are possible either of which seems justified, a practical point of this kind is surely to be given due consideration.

The case has caused such distinct differences of opinion among conchologists, that the Secretary submitted the foregoing data to Dr. Paul Bartsch, Dr. W. H. Dall, and Dr. H. A. Pilsbry (all of the

United States), and to Dr. B. B. Woodward of London, England, and to Commissioner Frederick Chapman of Melbourne, Australia, with request for comments.

The consultants have replied as follows:

Letter from Dr. Paul Bartsch of the United States National Museum:

Dr. Dall and I have both gone over your "pink sheets," which are herewith returned, and we both feel you have splendidly covered the field and there is nothing else to say.

Letters from Dr. H. A. Pilsbry of the Academy of Natural Sciences, Philadelphia:

I have read your opinion on *Bulinus* and *Bulinus* with great satisfaction. It appears to me to cover the ground in a wholly logical manner. I am of course the more pleased because the views you adopt disturb our current nomenclature far less than any other course which has been proposed.

Since *Bulinus* has entered medical literature (as a host of *Schistosoma* in Africa, etc.) it is doubly desirable to retain the name as wholly unconnected with the prior *Bulinus*, which has been used only in totally different senses. In my report on Congo mollusks (now, I hear, about to be printed) the type, *Bulinus senegalensis*, is to be figured from the original marsh in Senegal. Kennard and Woodward's failure to identify this species was doubtless due to lack of material from that particular place.

Thank you for letting me see the very full discussion of the case *Bulinus* versus *Bulinus*. As you say, the discussion by Bruguière is very important in this connection, though I had not recognized its bearing before. I think that the Opinion will prove generally acceptable to workers in Mollusca, and it seems to me by far the most logical solution of the questions at issue.

Letter from Dr. B. B. Woodward, malacologist:

The high compliment you pay of asking my opinion of your "Opinion" ere it goes before the Commissioners although you know how divergent our views are on the enforcement of the "Rules" is fully appreciated by me.

I take it that you invite remarks on the whole draft and not merely on the conclusions expressed in the initial "Summary." It appears to me then that your draft recommendation has been drawn up after the manner of judicial decisions solely on the somewhat involved statement laid before you by the appellant without regard to whether that statement is complete or not. Had you seen your way to make yourself really familiar with the complete arguments published by Kennard and Woodward in the Proc. Malac. Soc. Lond., vol. 14, 1920, pp. 86-88, and vol. 16, 1924, pp. 125-128, instead of relying on the fragmentary quotations of the appellant, you would have found all the points fully met, and would, I venture to think, in many respects have modified your recommendation and summary, which, if I may say so, rather suggests to the Commissioners how they should vote instead of giving them the information on which to base their own conclusions as they should be left to do. It is a pity the rival statements could not be given in parallel columns.

In the first place, as admitted in the "Discussion," Adanson was a pre-Linnean writer and therefore by the "Rules" his work and names cannot be entertained. The amazing statement on the top of fol. 4 [p. 8] of your draft, that his *Bulinus* "has been determined" and that "it was defined very well, and with specimens from the type locality no zoologist should go astray in its identification" is far removed from fact. No man from Adanson's day to this has seen the mollusc, and no specimens from the type locality, which is unknown, exist! It remains an indeterminate species and the bestowal of a trivial name on it does not alter that. A few details given of it show that both anatomically and conchologically it had nothing in common with forms, like *Isidora*, that have been placed with it by writers who should have known better. It was by following Fischer that the medicos were misled into using a wrong name, which does not apply to their molluses and it is not for the systematic zoologists to pander to the errors of the misinformed.

In the next place there is no such thing as "*Bulinus* Scopoli, 1777" or that eccentric writer would not have attached Adanson's name as author. It should be quoted as "*Bulinus* Adans., of Scopoli." The error of transcription (not a typographical error) is only too obvious (see Kennard and Woodward, 1924, p. 126). Of course if Scopoli had looked twice or read the text as he manifestly did not do, he would have seen his error and rectified it. The argument that Scopoli did not cite Adanson's species is beside the mark for he evidently, as the context shows, thought he was doing so but misspelt the name. The suggested definite statement in the opening summary of the draft "Opinion" that "The Commission rules that *Bulinus* Scopoli, 1777, is not an obvious typographic error" is hardly consonant with the admissions and more guarded statements on fol. 5, sect. e [p. 9]. If you must suggest the verdict, why not put "do not consider," instead of "rules"? Scopoli's record of 1777 cannot be considered apart from his 1786 elaboration and extension of the name to the "nec non paucae terrestres cl. Müllerii," which puts the crown on his absurd group (see Kennard & Woodward, 1924, p. 128). The restoration of "*Bulinus* Adans." of Scopoli, 1777, would only make confusion worse confounded.

Mueller's adoption of Adanson's *Bulinus*, including his bestowal of a trivial name, which, of course, becomes the type of the genus, fails for the reasons carefully pointed out by Kennard and Woodward (1920, p. 87).

As to *Bulinus* of Bruguière, 1792, whatever may be said or thought of the "*Bulinus* Adans." of Scopoli, there is the name printed in 1777 and renewed in 1786; hence by the "Rules" it cannot be used again so that the argument advanced at the bottom of fol. 6 [p. 11] that the suppression of *Bulinus*, 1777, would resuscitate that of 1792 appears to me quite fallacious. Bruguière's *Bulinus*, therefore, goes out as a homonym as admitted in the initial "Summary" of the draft "Opinion" but not made as clear as it might be in the "Discussion."

Stiles to Woodward:

Referring to your letter on *Bulinus*, I had already examined your publications of 1920 and 1924, but will order them again to see whether I have overlooked any point. I shall also take pleasure in forwarding a copy of your letter to the Commission when a draft of the Opinion is forwarded.

You, of course, understand that the statement of case in any Opinion is the statement given by the appellant and that the discussion is the part written by the Commissioner who formulates the Opinion. It is customary to refer each

case to a Commissioner who makes a special study of the data and makes his recommendations to the Commission. As in any court of law the case has to be decided upon the evidence available. Appellants can hardly expect that the Commissioners will work up the literature for them though we have done this in several cases.

I am wondering whether confusion has not arisen in regard to your interpretation of *Bulimus*, 1792. If it be maintained that *Bulimus*, 1777, is a typographic error would you still maintain that it has status in nomenclature to the effect that it invalidates *Bulimus*, 1792, or would you maintain that as a typographic error it has no status in nomenclature? In the latter premise it could not invalidate *Bulimus*, 1792.

I will go over the data very carefully again in your publications of 1920 and 1924.

Woodward to Stiles:

You ask for an explicit statement as to my opinion on the status of Bruguière's *Bulimus*, 1792, in the event that *Bulimus*, 1777, should be decided to be a typographical error. I thought I had made it quite clear in my last letter that I regarded Scopoli's "*Bulimus* Adans." as an error of transcription and not as a typographical error, and I further wrote: "As to *Bulimus* of Bruguière, 1792, whatever may be said or thought of the "*Bulimus* Adans." of Scopoli, there is the name printed in 1777 and renewed in 1786; hence by the Rules it cannot be used again. . . . Bruguière's *Bulimus*, therefore goes out as a homonym." Of course had the "*Bulimus* Adans." of Scopoli been a *nom. nud.* that would have been a different matter: it was not.

By the way, as a matter of fact, which I had forgotten, Bruguière's *Bulimus* was published in the first part of the Ency. méthod., Vers, i, which appeared in 1789 (see Sherborn & Woodward: *Aun. & Mag. Nat. Hist. Ser. 7*, vol. 17, p. 579) and not in 1792.

Your statement as to the method of procedure of the Commission is illuminating. It seems that unless the appellant, who is naturally biased, happens to have given a complete statement of facts it is nobody's business to see that a full case is placed before the Commission, who may, therefore, be called upon solemnly to adjudicate on imperfect evidence.

Letter from Commissioner Frederick Chapman, A. L. S.:

My conclusions on the evidence and discussion regarding the validity or otherwise of *Bulinus* Adanson are as follows:

- 1.—*Bulinus* Adanson is pre-Linnean and therefore has no status.
- 2.—*Bulimus* Scopoli may or may not be an error of transcription by that author, for Adanson's name, but is not to be considered since Adanson is pre-Linnean. But *Bulimus* Scopoli would also go by the board had he not further defined it in 1786. *Bulimus* Scopoli therefore stands.
- 3.—*Bulimus* of Bruguière, 1792, goes out as a homonym.
- 4.—*Bulinus* having been ruled out by No. 1, cannot be used again for the pulmonate forms related to *Isidora*, but Oken's name, *Bullinus*, 1815 (though apparently suggested by Adanson's name), is sufficiently different to be retained, and in this sense has been used by Hedley (*Rec. Austr. Mus.* 1917, vol. 12, no. 1) for the sinistral forms like *Physa* so common in the Australian region, and which I have shown to belong to the Planorbidae.

Bartsch writes:

Your letter and the enclosures from B. B. Woodward are at hand.

Dr. Dall and I have both been interested in them. We are in accord with you.

The foregoing Opinion with the above comments was submitted to the Commission for informal vote and discussion. In accordance with the expressed opinion of the Commission, the Secretary has the honor to recommend that the Commission adopt as its Opinion the following:

SUMMARY.—The Commission does not interpret *Bulinus* Scopoli, 1777, as an obvious typographical error; the premises do not show that the genotype (which must be selected from the four originally included species) has been definitely and properly designated. *Bulinus* Mueller, 1781, has for its type *Bulinus senegalensis*, and is not invalidated by *Bulinus*, 1777. *Bulinus* Bruguière, 1792, type *haemastomus* seu *oblonga* is a dead homonym of *Bulinus*, 1777.

Opinion prepared by Stiles.

Opinion concurred in by eleven (11) Commissioners: Apstein, Chapman (with reservation), Dabbene, Handlirsch, Horvath, Ishikawa, Jordan (D. S.), Jordan (K.), Silvestri, Stiles, Warren.

Opinion dissented from by one (1) Commissioner: Bather.

Not voting six (6) Commissioners: Bolivar, Hartert, Kolbe, Neveu-Lemaire, Stejneger, Stone.

Commissioner Chapman attaches the following reservation to his vote:

As regards the re-consideration of vote on Circular Letter No. 130, *Bulinus* vs. *Bulinus*, I would concur with the Opinion that both *Bulinus* Scopoli, 1777, and *Bulinus* Mueller, 1781, be retained, on the proviso that *Bulinus* Oken, 1815, be regarded as the type genus for our Australian freshwater *Physa*-like molluscs (see Hedley, 1917, Rec. Austr. Mus., vol. 12, no. 1, p. 3). The shell from Senegal cannot be compared with the Australian, since, as Hedley remarks, the type has not been again recognized.

OPINION 117

TYPE OF *Lithostrotion*

SUMMARY.—Under Suspension of the Rules *Lithostrotion* is hereby standardized, with *Lithostrotion striatum* as type species, and is placed in the Official List of Generic Names.

PRESENTATION OF CASE.—By Dr. W. D. Lang and Dr. S. Smith:

We wish the species *Lithostrotion striatum* to be standardized as the genolectotype of *Lithostrotion*. The history is as follows:

Lithostrotion Fleming, 1828, History of British Animals, p. 508.

GENOSYNTYPES:

L. striatum, 1828, p. 508.

Erasmolithus Madreporites floriformis; Martin, 1809, Petreficata Derbiensia, pl. 43, figs. 3 and 4; pl. 44, fig. 5.

L. obliquum; Fleming, 1828, p. 508.

L. marginatum; Fleming, 1828, p. 508.

In 1845, Lonsdale (in Murchison, Geology of Russia, vol. 1, p. 602) mentions four species of *Lithostrotion*, namely *L. emarciatum*, *L. mammillare*, *L. astroides*, and *L. floriforme*. Without definitely designating *L. floriforme* (the only genosyntype involved) as lectotype, he yet discusses and determines the characters of *Lithostrotion* upon *L. floriforme*, clearly implying that he considered *L. floriforme* as lectotype. But if the author's intention is considered, it might be argued that Fleming intended *L. striatum* as genotype of *Lithostrotion*, since he placed it first, and gave it the trivial name *striatum* which, with the name *Lithostrotion*, is an echo of Lhwyd's description "Lithostrotion sive Basaltes minus striatum et stellatum," to which Fleming refers in his description of *L. striatum*.

Since, however, a genolectotype must be deliberately designated ("the meaning of the expression 'select the type' must be rigidly construed"), we are bound to leave both Fleming and Lonsdale with their implied intentions, and pass on to Edwards and Haime, who, in 1851 (Mon. British Fossil Corals, p. 72) deliberately designated *L. floriforme* Fleming, as genotype of *Lithostrotion*; and the fact that thereafter both they, and nearly all other authors, abandoned this ruling, interpreting *Lithostrotion* as if the genolectotype were *L. striatum*, and including *L. floriforme* in McCoy's genus *Lonsdaleia*, does not invalidate Edwards and Haime's prior pronouncement. *L. floriforme*, then, still stands as the genolectotype of *Lithostrotion*.

Now the generic type of the coral which, since 1851, has been almost universally, though wrongly, ascribed to *Lithostrotion*, is very abundant in the Carboniferous Limestone and includes several separable forms. The same is true of the genus *Lonsdaleia* of which the genolectotype is *L. duplicata* (Martin) and which includes the species of *L. floriformis* (Martin), *i. e.*, the *Lithostrotion floriforme* of Fleming and the true genolectotype of *Lithostrotion*. It is easily seen, therefore, that much of Carboniferous Coral nomenclature is thrown into confusion by giving the correct interpretation to *Lithostrotion*; and that time, labor, and misunderstanding would be saved, if the species *L. striatum*, which the author of *Lithostrotion* clearly intended as genotype, should be standardized as genolectotype of *Lithostrotion*.

DISCUSSION.—By Commissioner Bather :

The name *Lithostrotion* in the sense proposed by the writers is so commonly used in textbooks as well as in scientific papers that stability of nomenclature is more likely to be attained by suspending the rules in this instance than by enforcing them. I therefore commend the proposal that *L. striatum* be fixed as genotype of *Lithostrotion* to the favorable consideration of the International Commission on Zoological Nomenclature.

The papers in this case have been submitted to Dr. T. Wayland Vaughan, and his reply is appended herewith for the information of the Commission and as a part of the Opinion :

I have received your letter of January 5 and the papers relative to recognition of *Lithostrotion striatum* as the genoelectotype of *Lithostrotion*. I am not able to check all of the references given by Mr. Lang but I can check his reference to Edwards and Haime's British Fossil Corals. I am convinced that the presentation of Messrs. Lang and Stanley Smith is in all respects correct. Unless there is some urgent reason not known to me I incline to agree with the recommendation of Messrs. Lang, Smith, and Bather. I think that you know the standing of these three men. It is very high and Doctor Bather is one of the most distinguished paleontologists living. If their recommendation is not adopted the name *Lithostrotion* will have to replace *Lonsdaleia* McCoy, 1849, which would be unfortunate. I don't like to express a positive opinion until I am entirely sure that I have considered all of the different angles, but I am not inclined to make any opposition to the recommendation you have referred to me.

Notice that this case is under consideration for Suspension has been published as follows :

Monitore Zoologico Italiano, Anno 38, 1927, No. 9.

Nature, vol. 119, June 4, 1927.

Zoologischer Anzeiger, Band 71, Heft 11-12, 28 Mai, 1927.

Science (Query).

The Secretary moves that in accordance with Commissioner Bather's Opinion the Commission adopt the following :

SUMMARY.—Under Suspension of the Rules *Lithostrotion* is hereby standardized, with *Lithostrotion striatum* as type species, and is placed in the Official List of Generic Names.

Opinion concurred in by eleven (11) Commissioners: Apstein, Bather, Chapman, Handlirsch, Horvath, Ishikawa, Jordan (D. S.), Jordan (K.), Stiles, Stone, Warren.

Opinion dissented from by no Commissioner.

Not voting, six (6) Commissioners: Dabbene, Hartert, Kolbe, Loennberg, Neveu-Lemaire, Stejneger.

Motion concurred in by ten (10) Commissioners: Apstein, Bather, Chapman, Dabbene, Horvath, Ishikawa, Jordan (D. S.), Jordan (K.), Stiles, Stone.

Motion dissented from by no Commissioner.

Not voting, six (6) Commissioners: Handlirsch, Hartert, Kolbe, Loennberg, Neveu-Lemaire, Stejneger, Warren.

OPINION 118

Scalpellum gabbi WADE, 1926, A NOMEN NUDUM

SUMMARY.—The name *Scalpellum gabbi* Wade, 1926, is a *nomen nudum* as of 1926, since it is definitely made dependent by its author on hypothetical specimens. See Opinion 2.

PRESENTATION OF CASE.—By Mr. T. H. Withers, of the British Museum:

In United States Geological Survey, Professional Paper 137 (Bruce Wade: The Fauna of the Ripley Formation on Coon Creek, Tennessee), Washington, 1926, p. 191, an author, whose identity is uncertain, describes and figures two cirripede plates under the heading "*Scalpellum* sp."

Following the description is the following:

"These two plates were not found together, and it is impossible to say if they belong to the same species. Should additional specimens be obtained sufficient for establishing a new species, the species might very properly be called *Scalpellum gabbi* Wade, n. sp. . . ."

A ruling on the nomenclatorial status of the name *Scalpellum gabbi* is desired.

DISCUSSION BY COMMISSIONER BATHER.—This hypothetical or conditional proposal of new names is an action that has frequently received severe and well-merited censure. If it were possible to deny validity to the present name a more effective check might be placed on the practice. There do actually seem to be reasons for such a decision.

1. The identity of the author is uncertain. Though the author of the paper as a whole is Bruce Wade, the section on *Arthropoda* is ascribed by the table of contents and by its own heading (p. 184) to M. J. Rathbun. It is quite possible for Miss Rathbun to have quoted a MS. name from a label attached by the collector, Wade, in which case she might have written "*Scalpellum gabbi* Wade." On the other hand, *Scalpellum* is not included by Miss Rathbun in the list of forms that she discusses; her contribution is headed "Class Crustacea," and the description of *Scalpellum*, is headed "Class Eucrustacea," which may indicate a difference; the name "Wade" may signify the author of the section. In this state of uncertainty one might regard the author as anonymous, but, though this presumably would put the name out of court, I find no rule or opinion dealing with anonymity.

2. The two plates, which are different parts of the test, are described separately. Neither is taken as holotype; on the contrary, the writer declines to say that both belong to the same species, and there-

fore refrains from naming either. The next sentence implies that no species can be established until further material is collected, whence it follows that the holotype would be taken from that further material. Therefore the name *Scalpellum gabbi* is hypothetically attached to a specimen not yet known, and, for all one can tell, non-existent. "Names based on hypothetical forms have no status in nomenclature" (Opinion 2).

3. Although the separate plates are described and figured, the writer has attempted no diagnosis of a species, it being clear from his own words that he could not and would not formulate any specific concept. He does not even compare his specimens with any others.

This leaves the name *S. gabbi* without definition or description; and if we seek for an "indication" in the sense of Article 25a, we find, as already shown, that any possible type-specimen is unknown. The name is therefore a *nomen nudum*.

I conclude, therefore, that as a *nomen nudum* without status the name *Scalpellum gabbi* does not come into consideration. It follows that any author can use the name for any new species of *Scalpellum* (though such action would be most ill-advised), also that any author can give the name *S. gabbi* to either of the specimens figured in Prof. Paper, 137, and the author so doing will then rank as the author of the name.

SUMMARY.—In general terms: A specific name conditional on specimens unknown to its author has no status in nomenclature.

DISCUSSION BY SECRETARY.—The foregoing papers were referred to the United States Geological Survey and to Miss Mary J. Rathbun for comment with the following result:

Letter from George O. Smith, Director:

The case of nomenclature which involves the standing of the name *Scalpellum gabbi* Wade has been considered by the paleontologists of the Geological Survey, and they have prepared the two enclosed memoranda which show that they are in essential agreement that *Scalpellum gabbi* is a *nomen nudum* without standing. On the incidental question of authorship which has been raised they are agreed that Wade is the author of the name.

Memorandum from Miss Mary J. Rathbun:

I did not write the description of the *Scalpellum* and never saw it until it was published.

On page 184, the Order Decapoda *only* is ascribed to me. Apparently Mr. Wade expected that whatever was not definitely assigned to a different author would be attributed to himself. The "Contents" on p. II (which perhaps he did not make up) does not bear that out.

Memorandum from Paleontologists of the Geological Survey :

The suggestion made by Commissioner Bather that this name might be regarded as anonymous is unwarranted, for it is published as "*Scalpellum gabbi* Wade, n. sp.," and the published record must be accepted. Miss Rathbun's denial of authorship is confirmatory evidence on this point.

On the other hand, Commissioner Bather's opinion that the name can be disposed of as a *nomen nudum* seems to be justified. Most conditional new names could not be so summarily dealt with, but the author states that "should additional specimens be obtained sufficient for establishing a new species, the species might very properly be called *Scalpellum gabbi* Wade, n. sp." (italics ours).

- [Signed:] "In full agreement," George H. Girty, W. P. Woodring, P. V. Roundy, W. C. Mansfield, John B. Reeside, Jr.
 "I concur in the above statement," T. W. Stanton.
 "In my opinion the name '*Scalpellum gabbi*' is a *nomen nudum* and therefore for the present without standing." E. O. Ulrich.
 "The reasoning in this matter seems to be conclusive." Charles Butts.
 "The name should be considered a '*nomen nudum*' and without other standing." Edwin Rich.

Memorandum from L. W. Stephanson and C. Wythe Cooke :

The name *Scalpellum gabbi*, as it now stands has, in our opinion, no validity and can only be given validity by a revisor.

A revisor might select one of the specimens as holotype, in which case the name would apply to that specimen only, unless the revisor, or some subsequent author, could show that it exhibits a specific character or characters which would permit of its identification with other specimens.

The revisor probably would, through courtesy, credit the name to Wade, but he would be justified in claiming the credit for himself, or he would even be justified in ignoring Wade's name and applying an entirely new name to the species.

The Secretary has verified the original publication and concurs in the statement of premises and in the conclusion, and recommends that the Commission adopt the following :

SUMMARY.—The name *Scalpellum gabbi* Wade, 1926, is a *nomen nudum* as of 1926, since it is definitely made dependent by its author on hypothetical specimens. See Opinion 2.

Opinion prepared by Bather and Stiles.

Opinion concurred in by thirteen (13) Commissioners: Apstein, Bather, Chapman, Dabbene, Handlirsch, Hartert, Horvath, Ishikawa, Jordan (D. S.), Jordan (K.), Stiles, Stone, Warren.

Opinion dissented from by no Commissioner.

Not voting: Kolbe, Loennberg, Neveu-Lemaire, Silvestri, Stejneger.

OPINION 119

SIX MOLLUSCAN GENERIC NAMES PLACED IN THE
OFFICIAL LIST OF GENERIC NAMES

SUMMARY.—The following six generic names of *MOLLUSCA* are hereby placed in the Official List of Generic Names, with types as stated: *Cerion* (*uva*), *Oleacina* (*voluta*), *Neritina* (*pulligera*), *Clausilia* (*rugosa*), *Vitrina* (*pellucida*), *Tornatellina* (*clausa*).

PRESENTATION OF CASE.—Drs. H. A. Pilsbry and H. Burrington Baker have made application to the Commission to accept twelve generic names as “nomina conservanda” [should read “in the Official List of Generic Names”]:

1. *Amphullaria* Lamarck, with *Helix amphullacca* Linné as type;
2. *Auricula* Lamarck, with *Voluta auris-midae* Linné as type;
3. *Cerion* Röding, with *Turbo uva* Linné as type;
4. *Oleacina* Röding, with *Bulla voluta* Gmelin as type;
5. *Bithynia* Leach, with *Helix tentaculata* Linné as type;
6. *Cyclostoma* Draparnaud, with *Nerita elegans* Müller as type;
7. *Neritina* Lamarck, with *Nerita pulligera* Linné as type;
8. *Clausilia* Draparnaud, with *C. rugosa* Draparnaud as type;
9. *Vitrina* Draparnaud, with *Helix pellucida* Müller as type;
10. *Artemon* Beck, with *Solarium candidum* Spix as type;
11. *Cochlicopa* Férussac, with *Helix lubrica* Müller as type;
12. *Tornatellina* Pfeiffer, with *T. clausa* Pfeiffer as type.

DISCUSSION.—The twelve names in question were ‘submitted to thirteen specialists as consultants who are familiar with the cases and with whose work these names are more or less intimately involved.

Pronounced differences of opinion as to the best course to pursue exist in regard to six of these names.

In regard to the other six names, one specialist supported “suspension,” one opposed “suspension” (without details), one saw no special cause for “suspension,” while five who opposed suspension maintained that the six names in question are valid under the Rules and therefore do not call for Suspension.

The situation is thus presented that six of the names for which suspension is asked, in order to stabilize the nomenclature, can (on basis of expert testimony of five specialists) be adopted in the Official List without valid formal objection by any of the thirteen consultants in question. The data on these six names follow:

3. *Cerion* Bolten, 1798, tsd. (1894) *Turba uva* Linn., 1758. Pilsbry and Baker report:

“*Cerion* Röding (Mus. Bolten., II, p. 90), type designated by Dall (1894, Bull. Mus. Comp. Zool. 24, p. 121), *Turbo uva* L.

Pupa Lamarck (1801, Syst. Anim. s. vert., p. 88), monotype *Turbo uva* L. (Not *Pupa* Röding.)

Pupa Draparnaud (1801, Tabl. Moll. France, pp. 32, 56), for European Pupillidae."

Discussion: *Cerion* is universally employed for the typical genus of the Cerionidae (Gastropoda Pulmonata); the only other name (*Strophia*) that has been used is preoccupied. According to Opinion 96, *Cerion* is the correct name for the genus. Its replacement by *Pupa* would be peculiarly unfortunate, as that name has usually been employed in the sense of Draparnaud (= *Pupilla* Leach), although historically both the Pupillidae and the Cerionidae (members of different suborders) were included in the one genus. Except for *Pupa* Lam., *Cerion* would be the prior name for the genus, even if dated from what many consider its first valid use, that by Mörch (1852).

According to special reports by F. A. Bather, B. B. Woodward (both of London), and F. Haas, Rud. Richter, and W. Wenz (all three of the Senckenberg Museum, of Frankfurt a. M.), this case stands under the Rules. H. A. Pilsbry and H. B. Baker (of Philadelphia), B. Rensch (Berlin), and F. L. Chapman (Melbourne), express themselves in favor of *Cerion*. Wolfgang Adensamer (Vienna) concurs. Apparently Paul Bartsch (Washington, D. C.) and L. Germain, both support *Cerion*, the former on basis of the Rules, the latter even if suspension is necessary. T. W. Stanton, speaking as a paleontologist, "would like to have the conchologists agree among themselves."

4. *Oleacina* Bolten, 1798, type *Bulla voluta* Gmelin, 1790. Pilsbry and Baker report:

"*Oleacina* Röding (Mus. Bolten., II, p. 110), monotype *O. volutata* Röding, with *Bulla voluta* Gmelin in synonymy.

Glandina Schumacher (1817, Ess. Nov. Syst. Hab. Vers. Test., pp. 61, 202), monotype *G. olivacea* Schumacher (= *Bulla voluta* Gmelin)."

Discussion: According to Opinion 96, *Oleacina* is the correct name for the typical genus of the Oleacinidae (Gastropoda Pulmonata). As Schumacher was almost as unpopular as Bolten among the early conchologists, *Oleacina* has been in use almost as long as *Glandina*, and is the one employed by recent writers. It seems best to fix it.

The consultants report as in Case 3. *Cerion*.

7. *Neritina* Lamarck, 1816, type *N. pulligera* Linn., 1766. Pilsbry and Baker report:

"'Neritine' Féussac (1807) and Lamarck (1809).

Theodoxis, *Theodoxus* Montfort (1810, Conch. System, II, pp. 350, 351), type by original designation, *T. lutetianus* Montfort = *Nerita fluviatilis* Linné (1758).

Clithon Montfort (1810, pp. 326, 327), type by original designation *Clithon corona* (L.) = *Nerita corona* L. (1758).

Neritina 'Lamarck' Rafinesque (1815, *Analyse de la Nature*, p. 144), nude name.

Neritina Lamarck (1816, *Encycl. Méth. Vers.* II, pl. 455), type designated by Children (1822-1823, *Gen. Lam.*, p. 111), *Neritina pulligera* (L.)."

Discussion: *Neritina* Lamarck (with date quoted as 1809) has been and still is usually employed for a widespread group of fresh and brackish water snails of the family Neritidae (Gastropoda Rhipidoglossa). Probably, the European species, *Theodoxus fluviatilis* (L.) is not congeneric with the East Indian *N. pulligera*, but the position of the East Indian *N. corona* (*Clithon*) is more dubious. *Theodoxus* has come into quite common use, in recent years, for at least the European species, although some writers still use *Neritina* in practically the Lamarckian sense. *Clithon* has almost never been used in a generic sense, although it is possible that the *Conchyliologie Systematique* came out in parts, and *Clithon* is on an earlier page than *Theodoxus*. The fixation of *Neritina* as a *nomen conservandum* would permit the "lumpers" to retain the customary name for the entire group, while the "splitters" could still use *Theodoxus* for the European genus.

Woodward reports:

Neritina. Regrettable as was the necessary substitution, under the Rules, of *Theodoxus* for the once familiar *Neritina* there is no valid reason beyond sentiment for reversion to the Lamarckian name. *Theodoxus* is now so widely used that its abandonment would only create more confusion. In the suggested course, which has its good points, of dividing the genus and using both *Theodoxus* and *Neritina* the former by its priority would entail the family name being Theodoxidae.

Bather reports:

7. *Neritina* should stand with genotype *N. pulligera* if generically distinct from *Theodoxus* with genotype *N. fluviatilis*. If that be possible I see no objection to retaining the name Neritinae—but that is another question. *

Richter (concurred in by Haas and Wenz) reports:

7. *Neritina* Lamarck, 1816, mit *N. pulligera* (L.) als Typus besteht neben *Theodoxus* Montfort, 1810, mit *Nerita fluviatilis* L. als Typus, da (wie es auch der Einsender für wahrscheinlich hält: eine zoologische Frage) die Arten *pulligera* und *fluviatilis* nicht kongenerisch sind.

Will man *Neritina* und *Theodoxus* als Subgenera in einem Genus vereinigen, so heisst dieses Genus *Theodoxus* Montfort.

Da die Spezies *corona* L., der Genotypus von *Clithon* Montfort, ebenfalls einem anderen Genus oder mindestens einem anderen Subgenus angehört (wie der eine der Einsender, Baker, in seinen *Radula*-Untersuchungen, *Proc. Acad. Nat. Sci. Phila.*, vol. 75, 1923, p. 117 s., gezeigt hat) so bleibt auch *Clithon* Montf. bestehen: als Genus oder als Subgenus *Theodoxus* (*Clithon*) Montf.

Der Name der Familie (entgegen B. B. Woodward, der hierin irrt) wird dadurch nicht berührt.

Chapman reports:

VII. It appears that *Theodoxis* is untenable on account of the type being the equivalent of *Nerita fluviatilis* L. I would support the use of *Neritina* with type *N. pulligera* L., 1766.

The other reports are as under *Cerion*.

8. *Clausilia* Draparnaud, 1805, type *C. rugosa* Drap., 1805. Pilsbry and Baker report:

"*Clausilia* Drap. (1805, Hist. nat. Moll. France, pp. 24, 68), type designated by Turton (1831, Man. Land and F. w. Shells Brit., I, p. 6), *Turbo bidens* Montagu (not Linné), which he includes (p. 75) in the synonymy of *Clausilia rugosa* Drap. (= *Pupa rugosa* Drap., 1801)."


Discussion: *Turbo bidens* Montagu is not included in Draparnaud's paper under that name, and there seems to be some question as to its identity with *C. rugosa* Drap. As Turton certainly treated the two as identical, and this type designation is the first that can be considered valid and is the one accepted by the (recent) splitters of the original genus, it seems best to fix it. Later type designations indicate *Turbo bidens* L. or *Clausilia bidens* Drap. or give no authority for the species; all three (or four) "*bidens*" are identifications of the Linnæan species but are now placed in three separate genera. *Clausilia* is the earliest generic name in the Clausiliidae (Gastropoda Pulmonata).

Other reports as under *Cerion*.

9. *Vitrina* Draparnaud, 1801, type *Helix pellucida* Müller, 1774. Pilsbry and Baker report:

"*Vitrina* Drap. (1801, Tabl. Moll. France, pp. 33, 98), monotype *Vitrina pellucida*, with *Helix pellucida* Müller in the synonymy."

Discussion: *Vitrina* is the prior name for the typical genus of the Vitrininae and the earliest name in the Zonitidae (Gastropoda Pulmonata). However, Draparnaud's specimens, as figured in his more detailed work (1805), seem to have been what was later named *Helicolimax major* Férussac (1807). Montfort (1810, p. 239) chose *Vitrinus pellucidus* (as the type of his emendation) but seems also to have confused the two species. Children (1822-1823, p. 100) and Gray (1847, p. 169) designated *Vitrina pellucida* (without authority). Herrmannsen (1849, Index Malac., Vol. II, p. 696) seems to be the first definitely to settle the genotype, and chose "*Helix pellucida* M." As some writers now place the two species in separate genera, it seems best to fix *Vitrina* exactly on one of them.

Richter (concurrent in by Haas and Wenz) reports: 

9. *Vitrina* Draparnaud, 1801, mit *Helix pellucida* Müller als Typus besteht nach den Regeln ohne Weiteres zu Recht.

Ob Draparnaud ausser der eigentlichen *pellucida* Müller noch eine andere Art hinzurechnete, zumal in einer späteren Veröffentlichung (1805: *Helicolimax major* Férussac, 1807) und zumal eine damals noch unbeannte Art (*major* erhielt diesen Artnamen erst 1807 durch Férussac), ist gleichgültig. Diese Tiere gehören eben nicht zur Spezies *pellucida* Müller.

Other reports as under *Cerion*.

12. *Tornatellina* Pfeiffer, 1842, type *T. clausa* Pfeiffer. Pilsbry and Baker report:

"*Tornatellina* Beck (1837, Ind. Moll., p. 80), nude name, including several nude species, among them *T. clausa*.

Strobilus Anton (1839, Verz. der Conchyl., p. 46), type designated by Gray (1847, P. Z. S., p. 175), for '*Strombilus* Alton,' *S. turritus* (*S. turritus* Anton, l. c.). Not *Strobila* Sars (1835).

Tornatellina Pfeiffer (1842, Synb. ad hist. Helic., vol. II, pp. 5, 55, 130), type designated by Gray (l. c.), *Tornatellina clausa* (= *Strobilus bilamellatus* Anton)."

Discussion: Beck's *Tornatellina* is a *nomen nudum* but Pfeiffer vested it and some of Beck's specific names. Since that time, *Tornatellina* has been universally used as the typical genus of the Tornatellinidae (Gastropoda Pulmonata), because those authors who paid any attention to the prior *Strobilus* considered it preoccupied by *Strobila*. Unfortunately, there is also the rather closely related *Strobila* Morse (1864=*Strobilops*, Strobilopsidae). *Tornatellina turrita* and *T. bilamellata* (+*clausa*) are probably congeneric, although they are generally placed in different sections of the genus. Anton's descriptions are very brief and would probably be almost unidentifiable without Pfeiffer's subsequent elaborations (1848).

Richter (concurrent in by Haas and Wenz) reports:

12. *Tornatellina* Pfeiffer, 1842, mit *Strobilus bilamellatus* Anton = *T. clausa* als Typus besteht neben

Strobilus Anton, 1839, mit *S. turritus* Anton als Typus, solange die Systematiker die Arten *clausa* und *turritus* nicht als kongenerisch betrachten. Will man beide in Subgenera innerhalb eines Genus vereinigen, so muss dieses Genus *Strobilus* Anton heissen; die Subgenera würden dann heissen *Strobilus* (*Strobilus*) Anton mit *turritus* als Typus und *Strobilus* (*Tornatellina*) Pfeiffer mit *clausa* als Typus.

Bather reports:

I agree with Woodward, but point out that this solution is "proper," *i. e.*, in accord with the Rules, only if *Strobilus* Anton be regarded as a homonym of *Strobila* Sars. Since that, according to the appellants, was the prevailing view, I would leave it undisturbed. If that be not agreed to, I would probably accept Suspension of the Rules on the ground of Confusion. [Secretary concurs.]

Other reports as under *Cerion*.

On behalf of the Commission, the Secretary wishes to express appreciation of the cooperation which the above mentioned consultants have given in connection with this case.

In respect to the name *Neritina*, the following recommendation by the Secretary is to be interpreted as applying to its generic status, in case *Neritina* is accepted as generically distinct from *Theodoxus*, but to its subgeneric status in case it is accepted only as subgenerically distinct.

In view of the pronounced differences of opinion which have developed in the cases of *Ampullaria*, *Auricula*, *Bithynia*, *Cyclostoma*, *Artemon*, and *Cochlicopa*, report is postponed until the next meeting of the Commission.

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

SUMMARY.—The following six generic names of *MOLLUSCA* are hereby placed in the Official List of Generic Names, with types as stated: *Cerion* (*uva*), *Oleacina* (*voluta*), *Neritina* (*pulligera*), *Clausilia* (*rugosa*), *Vitrina* (*pellucida*), *Tornatellina* (*clausa*).

Opinion prepared by Stiles.

Opinion concurred in by ten (10) Commissioners: Apstein, Bather, Chapman, Dabbene, Horvath, Ishikawa, Jordan (K.), Silvestri, Stiles, Warren.

Opinion dissented from by no Commissioner.

Not voting, eight (8) Commissioners: Bolivar, Handlirsch, Hartert, Jordan (D. S.), Kolbe, Neveu-Lemaire, Stejneger, Stone.

OPINION 120

THE STATUS OF *Achatinus*, 1810

SUMMARY.—*Achatinus*, 1810, is emendation of and therefore objective synonym of *Achatina*, 1799; the designation of *zebra* as type of *Achatinus* contravenes Article 30a and c. *Achatinus*, 1810, invalidates any later use of *Achatinus* in a different sense.

STATEMENT OF CASE.—The following case has been submitted for Opinion by Dr. H. A. Pilsbry and Dr. H. Burrington Baker of the Philadelphia Academy of Natural Sciences:

What is the status of emendations of generic names?

- (1) Can an emended form be used as a valid name of a genus if
 (a) the original form is preoccupied or
 (b) if the emendation has a different generic type?

- (2) Can an emendation preoccupy a new generic name of later date?

Case 1. Can *Achatinus* Montfort be used as the name of a genus? The following names are included in this problem:

Achatina Lamarck, 1799, June or July; Mém. Soc. Hist. Nat. Paris, p. 75, monotype *Bulla achatina* L., 1758, Syst. Nat., X, p. 728.

Achatinus Montfort, 1810, Conchyl. System., II, pp. 418, 419, emendation of *Achatina*, but with type by original [definite] designation (p. 419); *A. zebra* = *Bulinus zebra* Bruguière, 1792, Encycl. méth., I, p. 357, no. 100.

Cochlītoma Férussac, 1821, Hist. N. g. et p. Moll., Table Limaçons, p. 28, type designated by Pilsbry, 1904, Man. Conch., 2nd ser., 17, p. 78, *Bulinus zebra* Brug.

Achatinus Montfort is undoubtedly an emendation of *Achatina* Lamarck because (a) Montfort almost always changed generic names so as to give them a masculine ending, and (b) he included "*Achatina zebra* Roissy" in the synonymy of his type species.

The types of *Achatina* Lamarck and *Achatinus* Montfort are now placed in separate genera. Can *Achatinus* be used for the African genus of pulmonate snails (typified by *Bulinus zebra* Brug.) or must the name become *Cochlītoma* Férussac?

DISCUSSION OF CASE.—The Secretary has verified the following references:

Achatina Lamarck, 1799, Mém. Soc. Hist. nat. Paris, p. 75, mt. (Article 30c) and tat. (Article 30d) *Bulla achatina* Linn.

Montfort, 1810, Conch. Syst., vol. 2, pp. 418-420, referring to the vernacular name "L'Agathine" quotes a generic name, *Achatinus*, gives a generic diagnosis and adds "*Espèce servant de type au genre, Agathine zébre, Achatinus zebra*," with bibliographic references and technical and vernacular names.

He states that:

Les Agathines forment un genre entièrement composé de mollusques terrestres, et c'est parmi eux que l'on rencontre les plus grands de ces mollusques; celui que nous décrivons tient dans cette classe la second rang

Thus it is clear that *Achatinus* was not a monotypical genus for Montfort, 1810.

On page 420 Montfort adds:

C'est à de Lamarck que l'on doit l'établissement du genre agathine; il donna pour type l'agathine variée, *bullâ achatina*, de Linné, dans son Système des animaux sans vertèbres.

It is obvious that *Achatinus*, 1810, is an emendation of and therefore an absolute synonym of *Achatina*, 1799.

This case was submitted to Commissioner Bather for independent opinion which he formulated as follows:

Achatinus being merely an emendation must have the same genotype as *Achatina* which, fortunately, was monotypic. Montfort had no power to designate any other type.

Therefore, *Achatinus* cannot be used for *Bulinus zebra* Brug. if it belongs, as now alleged, to a different genus from *Bulla achatina* Linn.

Therefore, on the evidence submitted, the name for a genus with *B. zebra* as genotype must be *Cochlitoma* Férussac.

The Secretary recommends that the Commission adopt as its Opinion the following:

SUMMARY.—*Achatinus*, 1810, is emendation of and therefore objective synonym of *Achatina*, 1799; the designation of *zebra* as type of *Achatinus* contravenes Article 30a and c. *Achatinus*, 1810, invalidates any later use of *Achatinus* in a different sense.

Opinion prepared by Bather and Stiles.

Opinion concurred in by ten (10) Commissioners: Apstein, Bather, Chapman, Dabbene, Handlirsch, Horvath, Silvestri, Stejneger, Stiles, Stone.

Opinion dissented from by no Commissioner.

Not voting, eight (8) Commissioners: Bolivar, Hartert, Ishikawa, Jordan (D. S.), Jordan (K.), Kolbe, Neveu-Lemaire, Warren.

OPINION 121

NECESSITY FOR SUSPENSION OF RULES IN CASE OF *Agasoma*
GABB, 1869, TYPE *sinuatum*, NOT PROVED

SUMMARY.—As the arguments submitted for Suspension of the Rules in the case of *Agasoma* have not been convincing to the seven consulting conchologists and paleontologists who have studied this case, the Commission does not see its way clear to approve Suspension. *Agasoma* Gabb, 1869, type *sinuatum*, is hereby placed in the Official List of Generic Names.

PRESENTATION OF CASE.—Hoyt Rodney Gale, of Leland Stanford Jr. University, has submitted the following case:

In the "Paleontology of California," Volume 2, page 46, 1869, W. M. Gabb described a new genus which he called *Agasoma*. After describing the genus he lists two species, *Agasoma gravida* and *Agasoma sinuata*, both of which he had described as *Clavella* in an earlier part of the same volume, which had been published separately in 1866. In both places *Agasoma gravida* is placed before the other species, and it is mentioned as being "abundant," whereas *sinuata* is mentioned as "a rare shell." There can be little question but that Gabb had the common shell more in mind when describing the genus. The common shell has since then been well-known to all West Coast paleontologists and has become the type of the "*Agasoma gravidum* zone" of the Oligocene. It has been considered the type of the genus by West Coast workers, and other species similar to it have been described; whereas Gabb's two rather poor specimens of *sinuatum* have stood practically alone. However, it being such a generally recognized fact that *Agasoma gravidum* was the type, no one on the West Coast took the pains to state it definitely until English revised the group in 1914 (Univ. Calif. Publ., Bull. Dept. Geol. Sci., vol. 8, p. 245, 1914). In 1922, Trask, thinking *sinuatum* generically distinct, proposed the name *Koilopleura* for it (Univ. Calif. Publ., Bull. Dept. Geol. Sci., vol. 13, p. 157, 1922). In the meantime, however, and many years before English's paper was published, Cossman wrote the type of the genus as *sinuata* (Essais Paleo. Comp., vol. 4, p. 148, 1901). This fact was first brought to the attention of West Coast paleontologists by Stewart who proposed the name *Bruclarkia* for what had been considered typical *Agasoma* (Proc. Acad. Nat. Sci. Phila., vol. 78, p. 399, 1926).

Cossman knew nothing at all about the situation, not realizing that one of the groups is little more than a curiosity, not realizing that the other group is so important that a change in name would be a source of annoyance and inconvenience to geologists as well as paleontologists, who even at that time knew the species of *Agasoma* as important horizon markers, not having heard of the important new species of *Agasoma* previously described by Cooper (Bull. No. 4, Calif. State Mining Bureau, p. 53, pl. 5, fig. 63, 1894), probably never having seen a specimen of *gravidum*, and surely never having seen a specimen of *sinuatum*. Thus Cossman's work is not a revision of the genus, and although the old rule requiring a man to "revise" the group in order to make the citation of the type valid does not hold, there is at least a strong feeling against his method. Cossman clearly should not have taken it upon himself to arrange a

matter about which he must have known so little. It is not surprising that the West Coast paleontologists overlooked a French citation of the type of a genus which is not known outside of the Oligocene and Miocene of California, Oregon, and Washington.

Since the original author must have intended *Agasoma gravidum* to be the type, since it has been so considered by West Coast paleontologists, since the first real reviser of the genus named it as the type, and since it would be a pity to make incorrect so much of our geologic and paleontologic literature merely because of an unwitting blunder, I ask if it is not possible, under the Suspension of the Rules, to cite *Agasoma gravidum* again as the type of the genus?

DISCUSSION OF CASE.—This case has been submitted to the following persons for study and expert opinion:

- (1) Dr. Paul Bartsch, United States National Museum, Washington, D. C.
- (2) Dr. F. A. Bather, British Museum, London, England.
- (3) Commissioner F. Chapman, A. L. S., Museum, Melbourne, Australia,
- (4) Dr. L. R. Cox, British Museum, London, England.
- (5) Dr. Rudolph Richter, Senkenbergische Naturforschende Gesellschaft, Frankfurt a. M., Germany.
- (6) Dr. T. W. Stanton, United States Geological Survey, Washington, D. C.
- (7) Dr. B. B. Woodward, London, England.

The reports from all seven consultants agree on the point that *Agasoma* does not represent a case for which Suspension of the Rules is advisable.

On basis of the advice submitted by these seven consultants, the Secretary is not persuaded that "the strict application of the Rules will clearly result in greater confusion than uniformity," and he therefore recommends that the Commission adopt, as its Opinion, the following:

SUMMARY.—As the arguments submitted for Suspension of the Rules in the case of *Agasoma* have not been convincing to the seven consulting conchologists and paleontologists who have studied this case, the Commission does not see its way clear to approve Suspension. *Agasoma* Gabb, 1869, type *sinuatum*, is hereby placed in the Official List of Generic Names.

Opinion prepared by Stiles.

Opinion concurred in by eleven (11) Commissioners: Apstein, Bather, Chapman, Dabbene, Handlirsch, Horvath, Ishikawa, Jordan (K.), Silvestri, Stiles, Warren.

Opinion dissented from by no Commissioner.

Not voting, seven (7) Commissioners: Bolivar, Hartert, Jordan (D. S.), Kolbe, Neveu-Lemaire, Stejneger, Stone.

OPINION 122

SEVEN GENERIC NAMES IN *PRIMATES* ADOPTED IN THE
OFFICIAL LIST OF GENERIC NAMES

SUMMARY.—The following generic names in *Primates* are hereby placed in the Official List of Generic Names, with type species as cited: *Colobus* (*polycomos*), *Galago* (*galago*), *Gorilla* (*gorilla*), *Hylobates* (*lar*), *Lemur* (*catta*), *Pithecia* (*pithecia*), *Tarsius* (*spectrum*).

STATEMENT OF CASE.—Commissioner Apstein has proposed the following seven generic names of *Primates* as *nomina conservanda*:

1. *Colobus* Illiger, 1811, *Prodromus Syst. Mamm. et Avium*, p. 69, tsd. *polycomos* Schreber, type locality West Africa.
2. *Galago* Geoffr., 1796, *Mag. Encycl.*, vol. 2, no. I, p. 49, 1 pl., tat. *senegalensis* Geoffr. = *galago* Schreber, type locality Senegal.
3. *Gorilla* Geoffr., 1852, *C. r. Acad. Sci.*, Paris, vol. 34, p. 84, tat. *gorilla* Savage, 1847, type locality Gaboon River, West Africa.
4. *Hylobates* Illiger, 1811, *Prodromus Syst. Mamm. et Avium*, p. 67, mt. *Homo lar* Linn., 1771, type locality Malay Peninsula.
5. *Lemur* Linn., 1758a, *Syst. Nat.*, vol. I, p. 29, type *catta* Linn., 1758a, 30, type locality Madagascar.
6. *Pithecia* Desm., 1804, *Nouv. Dict. Hist. nat.*, vol. V, p. 24, *Tab. méth. Mamm.*, 8, tat. *Simia pithecia* Linn., 1766, type locality Guiana.
7. *Tarsius* Storr, 1780, *Prodromus Meth. Mamm.*, pp. 33, 34, *Tab. A*, mt. *spectrum* Pallas, 1778, so. tat. *tarsier* Erxl., 1777, = *tarsius*, type locality East Indies.

DISCUSSION.—These names have been compared with the various nomenclators, with a considerable portion of the special literature on *Primates*, and with the original place of publication. In addition, they have been submitted to Dr. Gerrit S. Miller, Jr., of the United States National Museum, who considers them valid under the Rules. The Secretary has studied them and concurs in Doctor Miller's opinion.

In view of the foregoing premises, the Secretary recommends the adoption of these names in the Official List of Generic Names.

Opinion prepared by Stiles.

Opinion concurred in by twelve (12) Commissioners: Apstein, Bather, Chapman, Dabbene, Handlirsch, Horvath, Ishikawa, Jordan (K.), Silvestri, Stiles, Stone, Warren.

Opinion dissented from by no Commissioner.

Not voting, six (6) Commissioners: Hartert, Jordan (D. S.), Kolbe, Loennberg, Neveu-Lemaire, Stejneger.

OPINION 123

P. F. GMELIN'S ONOMATOLOGIA HISTORIAE NATURALIS
COMPLETA SUPPRESSED

SUMMARY.—Because of room for difference of opinion in interpreting many of the names in Gmelin's (1758-77) *Onomatologia Historiae Naturalis Completa*, their adoption in nomenclature would produce greater confusion than uniformity. Accordingly under Suspension of the Rules (if need be) this entire work (vols. 1-7) is hereby excluded from use under the International Rules of Zoological Nomenclature.

PRESENTATION OF CASE.—In connection with a well-known generic name in *Insecta*, J. C. Budwell of the United States National Museum, Washington, D. C., has requested an opinion on the nomenclatorial status of P. F. Gmelin's *Onomatologia Historiae Naturalis Completa*.

DISCUSSION.—Through the courtesy of the Surgeon General's Library, United States Army, the Secretary has been able to examine a complete set of this very rare and in some respects very remarkable publication, which is variously attributed to Gmelin, and to Gmelin (volumes 1-4) and Christman (volumes 5-7).

The complete title as given in volume 1 reads:

Onomatologia Medica Completa seu Onomatologia Historiae Naturalis oder vollständiges Lexicon das alle Benennungen der Kunstwoerter der Naturgeschichte nach ihren ganzen Umfang erklart und den reichen Schatz der ganzen Natur durch deutliche und richtige Beschreibungen des nuetzlichen und sonderbaren von allen Thieren, Pflanzen und Mineralien, sowohl vor Aerzte als andere Liebhaber in sich fasst zu allgemeinem Gebrauch von einer Gesellschaft naturforschender Aerzte nach den richtigsten Urkunden zusammengetragen. Ulm Frankfurt und Leipzig auf Kosten der Gaumischen Handlung. 1758.

With volume 2 the chief title is dropped and the subtitle of volume 1 is adopted to read as follows: *Onomatologia Historiae Naturalis Completa oder Vollständiges Lexicon [etc.]*.

The seven volumes represent a dictionary, lexicon, or encyclopedic arrangement of names (chiefly Latin) in alphabetic order. [*Onomatologia, i. e., Nomenclator.*] Under generic names the specific names are given alphabetically.

The last work of Linnaeus cited in the bibliography given in volume 1 is his *Systema Naturae*, 1748. Thus it is clear that the *Onomatologia* starts out on the pre-Linnean system of nomenclature without reference to the Linnean system of 1751; furthermore, in the earlier volumes the entries lack date and page references.

In a supplementary bibliography given in volume 3, the tenth edition of Linnaeus' *Systema Naturae* is cited, and to this the date "1760" instead of 1758 is given. Accordingly it is not strange that with this

number Linnean names (on a binary and binomial basis) with page references are cited.

In volume 4, 1773, according to the Introduction, p. 5, the twelfth edition of Linné's *Systema Naturae* is definitely adopted.

The introduction to volume 5, 1775, pp. 2-3, definitely states that Linnean method and terminology are adopted.

Accordingly the seven volumes represent two different plans of nomenclature—one, the pre-Linnean (polynomial) and the other the Linnean plan (binary and binomial). This point in itself might tend to make confusion for many in case this series of books is admitted under the International Rules, as it would add numerous new cases to a group of names which, though settled in principle by the Rules and Opinions, is still made a subject of controversial discussion.

A second point of confusion would arise from an element which the Secretary interprets as a cross-reference to the species, but which some authors, not without justification, might argue represents entries of new generic names. Under this latter interpretation confusion will result and the extent of this confusion cannot at present be foreseen. As examples, the following may be cited:

- Vol. 2, 1761, p. 267, "*Bombyx* . . . *Papilio Bombyx* . . . der Seidenwurm";
- Vol. 3, 1766, p. 469, *Crocodilus* (referred to Linn.) is cross-referenced to (s. [= sic]) *Lacerta crocodilus* Linn., tenth edition;
- p. 566, "*Cypraca Lynx*. s. *Lynx Cypraca*," cf. vol. 4, 1773, p. 918, "*Lynx Cypraca Lynx*." Thus *Lynx* might become the name of a mollusk, and *Lynx* Kerr, 1792, mammal, would then become a homonym;
- p. 585, *Dama* is quoted as if it might be a generic name, and refers to *Cervus dama* Linn., tenth edition, p. 67, no. 5;
- Vol. 6, 1775, p. 2, "*Paca*. s. *Cavia Paca*." This might be interpreted by some authors as a new generic name based on *Cavia paca*;
- p. 619, "*Polcat*. s. *Viverra Putorius*." Probably for the English polecat, but might easily be interpreted as a generic name;
- p. 815, "*Rattus* s. *Mus Rattus*";
- p. 815, "*Rattus moschatus*" quoted from 1725. Two interpretations might be made by different authors: (1) that the genus *Rattus*, type *Mus Rattus* is proposed and that this genus includes also *Rattus moschatus*; or (2) that *Rattus* is a specific cross-reference to *Mus Rattus* and that *Rattus moschatus* is simply a quotation from 1725.

A third type of confusion would result because of the entries of pre-Linnean names in connection with which it is sometimes difficult to conclude whether they are blind dictionary (or bibliographic) citations or whether they should be interpreted as adopted by the author. Examples:

- Vol. 2, p. 114, "*Bacillus*. s. *astacus petrificatus vulgo*," cf. "*Astacus petrificatus vulgo* . . . versteinerte Krebse," vol. 2, p. 21. *Bacillus* would stand in danger of being transferred from the insects to crustacea;

p. 214 ff., *Blatta* is used both for roaches and (as *Blatta bizantia* Rondeletti) for the operculum of an African mollusk.

Vol. 3, p. 503, *Cuniculus*, the rabbit, with species, quoted from Gesner.

Vol. 5, 1775, p. 52, *Mandril* refers to large man-like apes on the Gold Coast of Africa, bipeds, not quadrupeds. The word might be interpreted as a generic name by some authors or might be interpreted as a vernacular name. If interpreted as a generic name some authors would probably look upon this as the correct name for the chimpanzee.

Vol. 2, p. 278, "*Bos*, der Ochs";

p. 286, "*Bos pisces*" (referring to *Bos* Plin., a fish).

Sherborn (1902a) cites the *Onomatologia* in the bibliography to his *Index Animalium*, part I, but he rejects its names on the ground that they are not binominal "[n. b.]."

As a source of historical information on the early ideas and concepts in zoology this *Onomatologia* is undoubtedly a wonderful and valuable piece of work which will be found useful by any zoologist dealing with species published prior to 1777.

The publication in question is exceedingly rare and difficult to obtain. Its acceptance in nomenclature would place numerous systematists working on Linnean genera and species at a very distinct disadvantage and at this late date in the progress of nomenclature it would be difficult to justify the imposition of this inconvenience to specialists in the Linnean genera, especially since this might involve financial outlays which science can ill afford in the present state of world economics.

The one and only argument in favor of the acceptance of this work on a nomenclatorial basis, as far as the Secretary can see, is represented by the principle of the blind adherence to the Law of Priority no matter what the consequences may be.

Under the circumstances the Secretary recommends the adoption of the following as the Opinion of the Commission:

SUMMARY.—Because of room for difference of opinion in interpreting many of the names in Gmelin's (1758-77) *Onomatologia Historiae Naturalis Completa*, their adoption in nomenclature would produce greater confusion than uniformity. Accordingly under Suspension of the Rules (if need be) this entire work (vols. 1-7) is hereby excluded from use under the International Rules of Zoological Nomenclature.

Opinion prepared by Stiles.

Opinion concurred in by twelve (12) Commissioners: Apstein, Bather, Chapman, Dabbene, Handlirsch, Horvath, Jordan (K.), Silvestri, Stejneger, Stiles, Stone, Warren.

Opinion dissented from by no Commissioner.

Not voting, six (6) Commissioners: Bolivar, Hartert, Ishikawa, Jordan (D. S.), Kolbe, Neveu-Lemaire.