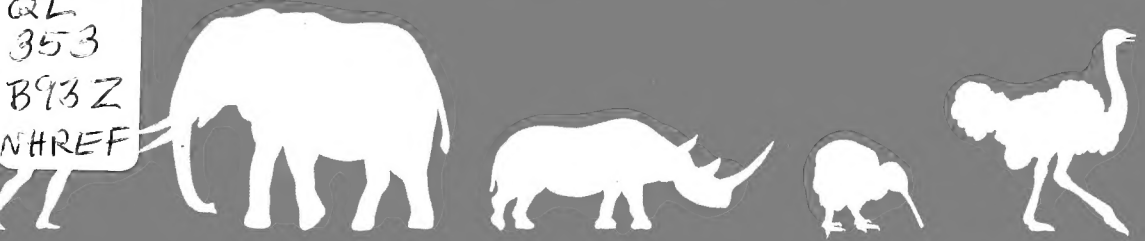


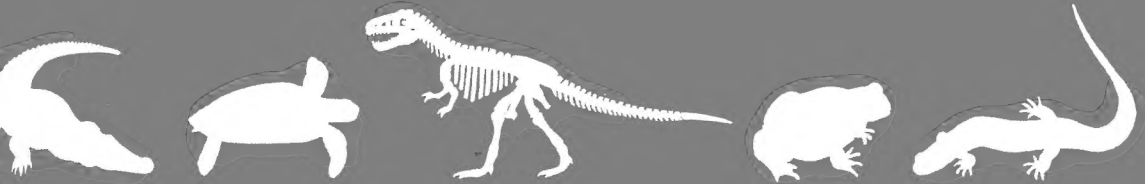




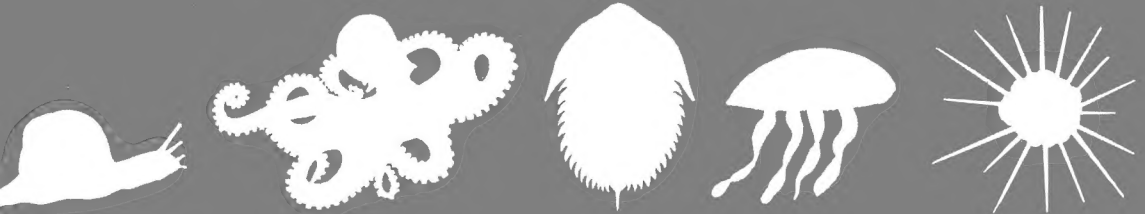
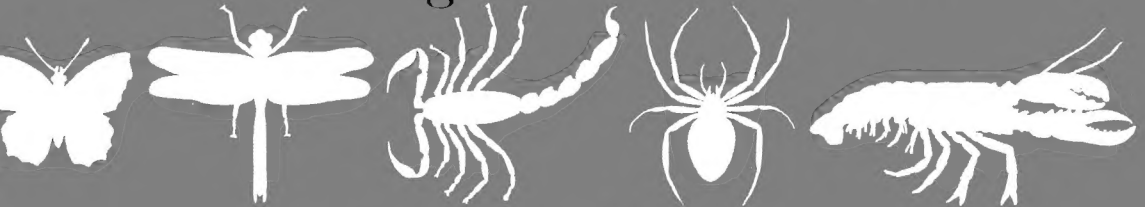
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The
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31 March 2006

Notices

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications. As far as it can, the Secretariat will check the main nomenclatural references in applications. Correspondence should be by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited.

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 62, part 4, 16 December 2005) went to press. Under Article 82 of the Code, existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3365: *Atractus* Wagler, 1828 and *Atractus trilineatus* Wagler, 1828 (Reptilia, Serpentes): proposed precedence over *Brachyura* Kuhl, 1820 and *Brachyorrhos kuhli* Boie in Schlegel, 1826. M.S. Hoogmoed & J.M. Savage.

CASE 3366: *Cisseis* Gory & Laporte, 1839 and *Curis* Gory & Laporte, 1838 (Insecta, Coleoptera): proposed conservation. C.L. Bellamy.

CASE 3367: *Curculio contractus* Marsham, 1802 (Insecta, Coleoptera): proposed conservation of the specific name. M.G. Morris.

CASE 3368: *Eatoniella* Dall, 1876 and EATONIELLIDAE Ponder, 1965 (Mollusca, Gastropoda): proposed conservation. D. Kadolsky.

CASE 3369: *Bothynus* Hope, 1837 (Insecta, Coleoptera, SCARABAEIDAE): proposed conservation of usage by designation of *Scarabaeus ascanius* as the type species. B.C. Ratcliffe & A.B.T. Smith.

CASE 3370: AKERIDAE, BITHYNIIDAE and HYDROBIIDAE (Mollusca, Gastropoda): proposed correction of authorship and date to Férussac, 1822, Gray in Turton, 1857, and Stimpson, 1865 respectively. D. Kadolsky.

CASE 3371: ARANEIDAE Clerck, 1758, *Araneus* Clerck, 1758 and *Tegenaria* Latreille, 1804 (Arachnida, Araneae): proposed conservation. N.J. Kluge.

CASE 3372: *Brachyplatystoma* Bleeker, 1862 (Osteichthyes, Siluriformes): proposed precedence over *Piratinga* Bleeker, 1858 and *Piramutana* Bleeker, 1858. A. Akama & J.G. Lundberg.

CASE 3373: *Ateles geoffroyi* (Mammalia, Primates): proposed attribution of authorship to Kuhl, 1820. C. Groves, J.J.H. Hines & P.D. Jenkins.

The International Commission on Zoological Nomenclature

The aim of the Commission is to bring stability to the use of animal names (zoological nomenclature). The Commission does this by:

- (a) producing, publishing and periodically revising the *International Code of Zoological Nomenclature* (the Code), which deals with the formulation and use of animal names;
- (b) considering and ruling on specific cases of nomenclatural uncertainty and dispute about animal names that are not automatically resolved under the provisions of the Code, via applications published in the *Bulletin of Zoological Nomenclature*.

The International Congress of Zoology founded the Commission in 1895. At present, the Commission consists of 19 zoologists from 16 countries whose interests cover most of the main divisions, including palaeontology, of the animal kingdom. The Commission is under the patronage of the International Union of Biological Sciences (IUBS). Commission members are elected by the vote of zoologists attending General Assemblies of the IUBS or other appropriate congresses. Nominations for membership may be sent to the Executive Secretary at any time. The Commission's history is described in *Towards Stability in the Names of Animals* (1995) (see below under 'Publications' for details). Further discussion of the Commission's activities can be found in BZN 48: 295–299 (December 1991) and BZN 60: supplement, pp. 1–12 (March 2003).

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The International Trust for Zoological Nomenclature (the Trust) was founded in 1947 to manage the Commission's financial matters. It is a registered charity, based in the U.K. (No. 211944). At present, the Trust consists of 26 members from 13 countries. Discussion of the Trust's activities can be found in **BZN 60**: supplement, pp. 1-12 (March 2003).

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Abstracts of Applications, Comments and Opinions, and details of the names included in the Official Lists and Indexes of Names and Works in Zoology since 2000, are posted on the Commission's website 'www.iczn.org'.

The International Code of Zoological Nomenclature

The aim of the Code is to provide the greatest universality and continuity in the scientific names of animals without restricting the taxonomy or classification of the animals for which the names are used. The current (fourth edition) of the Code was published by the Trust in English and French in 1999, and came into effect on 1 January 2000; this edition supersedes all previous editions. Official texts are available in Catalan, Chinese, Czech, German, Japanese, Russian, Spanish and Ukrainian. See below under 'Publications' for sales details.

The Articles of the Code enable the user to decide the valid name for any animal taxon between and including subspecies and superfamily. The provisions of the Code can be waived or modified in particular cases where strict adherence would cause confusion. However, only the Commission, acting on behalf of all zoologists, can do this in response to formal applications that are published in the *Bulletin*.

The Bulletin of Zoological Nomenclature

The *Bulletin* is published four times each year at the end of March, June and September and mid-December. The *Bulletin* includes Applications relating to animal names, Comments on Applications and Opinions giving the Commission's eventual rulings based on the Commissioners' votes. Each Opinion published in the *Bulletin* is an official ruling of the Commission and comes into effect on the day of publication of the *Bulletin*. The Opinions are summarised in the *Official Lists and Indexes of*

Names and Works in Zoology. The *Bulletin* also includes papers on general nomenclatural issues and proposed amendments to the Code. See below under 'Publications' for how to subscribe to the *Bulletin* and for details about the *Official Lists and Indexes of Names and Works in Zoology*.

Publications

All publications listed below may be ordered from: ITZN, c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk). With the exception of the *Bulletin* (which can only be ordered from ITZN), these publications can also be ordered from the American Association for Zoological Nomenclature (AAZN), Dr E. Hoberg, U.S. National Parasite Collection, ARS/USDA, Bldg. 1180, USDA, Beltsville, MD 20705-2350, U.S.A. (e-mail: ehoberg@anri.barc.usda.gov).

Prices listed below include surface postage. Please send payment with orders. Cheques should be made out to 'ITZN' (in sterling or dollars) or to 'AAZN' (in dollars only). Visa or MasterCard payments can be made to ITZN only; AAZN is not able to handle credit card payments. Please give cardholder's name, address, card number and expiry date when ordering.

The *Bulletin* subscription for 2006 is £140 or US\$250 or €250, including postage by accelerated surface post. Individual subscribers for personal use have a 50% discount making the subscription £70 or US\$125 or €125.

The *International Code of Zoological Nomenclature* (4th Edition, 1999; ISBN 0 85301 006 4; English and French in one volume) is available at £40 or US\$65 or €65, including surface postage. Individual purchasers buying the Code for personal use are offered a 25% discount (£30 or US\$48 or €48), as are institutions or agents buying five or more copies. Individual members of the American or European Associations for Zoological Nomenclature are offered a discount of 40% (price £24, \$39 or €39). Information about the prices and availability of the authorised translations of the Code can be obtained from the following e-mail addresses:

Chinese (traditional) – wenhua@oceantaiwan.com

Czech – klapagenda@centrum.cz

German – books@insecta.de

Japanese – tomokuni@kahaku.go.jp

Russian – kim@ik3599.spb.edu

Spanish – cfuentes@mncn.csic.es

The *Official Lists and Indexes of Names and Works in Zoology* gives details of all the names and publications on which the Commission has ruled since it was set up in 1895. The first volume published in 1987 contains 9917 entries, and a Supplement (2001) lists an additional 2385 entries. The cost of the 1987 volume and of the Supplement is £60 or US\$110 or €110 each, with reductions for both volumes ordered together and for individual buyers for personal use. Details available on request.

Towards Stability in the Names of Animals – a History of the International Commission on Zoological Nomenclature 1895–1995 was published in 1995 in recognition of the Commission's Centenary. This book (104 pages) contains 18 full-page illustrations, 14 being of eminent zoologists who played a crucial part in the development of animal nomenclature. The cost is £30 or US\$50 or €50.

Report on the ZooBank Symposium: ESA Annual Meeting, Fort Lauderdale, Florida, 18 December 2005

Frank Krell, Department of Entomology, Natural History Museum, London and Andrew Polaszek, Executive Secretary, ICZN

A meeting to present and discuss the ZooBank registry and other aspects of animal nomenclature and taxonomy was held as a late breaking symposium during the 2005 Annual Meeting of the Entomological Society of America. The meeting was arranged as a series of six presentations, preceded by an introduction from Frank Krell, organiser of the symposium, and followed by a panel discussion.

The title and content of the symposium were as follows:

'Revolutionising taxonomy through an open-access web-register for animal names and descriptions'

13.30–13.35: Frank Krell (Department of Entomology, Natural History Museum, London, U.K.):

Welcome and Introduction

13.35–13.50: Andrew Polaszek (ICZN, London):

'ZooBank: ICZN's open-access web-based register of all new animal names and original descriptions'

13.50–14.00: Nigel Robinson (Thomson Zoological, York, U.K.):

'ZooBank and Zoological Record: a partnership for success'

14.00–14.10: Per de Place Bjørn (GBIF, Copenhagen, Denmark):

'ZooBank and GBIF'

14.10–14.25: Richard Pyle (Bishop Museum, Honolulu):

'Implementing the Digital Taxonomic Revolution: Strategies for a Successful Web-Based Registry of Taxonomic Names'

14.25–14.35: Norman Johnson (Ohio State University, Columbus) & Donat Agosti (American Museum of Natural History, New York):

'Copyright: the new taxonomic impediment'

14.35–14.45: James Woolley (Texas A&M University):

'Name accessibility: one less impediment to taxonomy'

14.45–15.30: Panel discussion

The presentations and discussion attracted a large and lively audience providing much discussion and debate. Detailed summaries of each presentation will be given in the next issue of the *Bulletin of Zoological Nomenclature*, and the Powerpoint presentations can also be currently accessed via the ICZN website. Nigel Robinson's presentation was given by a remote audio link, and Rich Pyle's by both audio and video. We therefore express our gratitude to Grayson Brown and his team, particularly Kate Elliott for technical support, and the symposium's organisers, Susan Weller and Kathleen Shields.

During the annual meeting of the Entomological Collections Network (ECN), held in conjunction with ESA on 14–15 December, Frank Krell also addressed the subject of ZooBank.

We thank the following organisations for supporting our participation in the meeting and for their support of ZooBank: Global Biodiversity Information Facility; the Natural History Museum, London; Taylor and Francis Ltd, U.K.; Thomson Zoological Ltd; the Royal Entomological Society of London; and Blackwell Publishing Ltd, Oxford.



ZooBank Symposium, Fort Lauderdale, 18 December 2005; clockwise from top left: Rich Pyle in a live video link from Honolulu describes the ZooBank Registry proposal; Jim Woolley (speaker), Luciana Musetti and Norm Johnson (speaker); the audience; discussion panel: Per de Place Bjørn (GBIF); Jim Woolley (Texas A&M University); Andrew Polaszek (ICZN); Norm Johnson (Ohio State University); Frank-Thorsten Krell (Natural History Museum, London). Photographs: Kate Elliott.

Case 3315***Eudendrium tenellum* Allman, 1877 (Cnidaria, Hydrozoa): proposed conservation of usage of the specific name by the designation of a neotype**

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Abstract. The purpose of this application, under Article 75.5 of the Code, is to conserve the specific name *Eudendrium tenellum* Allman, 1877 in its accustomed usage for a small, distinctive, and widely distributed marine hydroid (family EUDENDRIIDAE) from North America, Europe and Japan. This name has been widely used for this hydroid since 1899, but Allman's (1877) type material of *E. tenellum* lacks both hydranths and gonophores, essential for specific identification within the genus *Eudendrium*, and is possibly conspecific with *E. capillare* Alder, 1856, while the species *E. tenellum* is unrecognizable from its original description. It is proposed that all previous type fixations for *Eudendrium tenellum* Allman, 1877 are set aside and a neotype designated in accordance with Hirohito's (1988) description of *Eudendrium tenellum*.

Keywords. Nomenclature; taxonomy; Hydrozoa; EUDENDRIIDAE; *Eudendrium*; *Eudendrium tenellum*; *Eudendrium capillare*; hydroids.

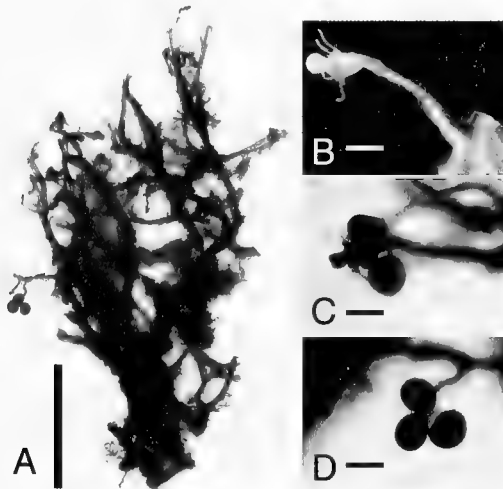
1. Allman (1877, p. 8, pl. 4, figs. 3–4) established the name *Eudendrium tenellum* for a colonial hydroid collected at a depth of 862 m off Double-Headed Shot Key (Florida, U.S.A.). The type material studied by Allman, lacking hydranths and gonophores, is deposited in the collection of the Museum of Comparative Zoology at Harvard University (a jar labelled 'MCZ 50235; colony without gonophores, U.S.A., off Florida, off Double-Head Shot Key, Gulf Stream Expedition, 23°57'30"N, 80°29'15"W, alcohol preserved, 10.iii.1869, 862 m, leg. L.F. de Pourtalès, det. G.J. Allman, holotype, with no hydranths'). Allman (1877, p. 8) himself had doubts about the identity of this hydroid, remarking that 'its reference to this genus is probably correct, but as neither hydranths nor gonophores were present in the specimen, it may possibly have its true place in some other'.

2. Although the description provided by Allman (1877) was entirely inadequate for recognition of *E. tenellum*, many authors subsequently used this name for a small and

distinctive species of hydroid (e.g. Bonnevie, 1899a, pp. 7–8, 1899b, pp. 49–50; Stechow, 1923, p. 80; Fraser, 1937, p. 43, pl. 8, fig. 33, 1944, pp. 74–75, pl. 12, fig. 50, 1948, pp. 183, 198; Kramp, 1943, pp. 16, 43; Yamada, 1954, p. 127, text-fig. 15, 1959, p. 26; Calder, 1972, p. 226, pl. 2, fig. 6; Hirohito, 1977, pp. 12–13, text-fig. 3, 1988, p. 88, fig. 31d-h). *Eudendrium tenellum* auct. is recognizable from the morphology of its hydranths and gonophores (Calder, 1972; Hirohito, 1977) and from its complement of nematocysts or cnidome (Hirohito, 1988). The presence of these characters and their nature is now considered critical for the differentiation of species assigned to the family EUDENDRIIDAE (Marques et al., 2000a, 2000b; Marques, 2001).

3. At present two distinctive species are cited in the literature under the name *Eudendrium tenellum* Allman, 1877. Colonies of both *Eudendrium tenellum* Allman, 1877 and *E. tenellum* auct. resemble those of *Eudendrium capillare* Alder, 1856. Naumov (1960, p. 244), and later Christiansen (1972, p. 290), regarded *E. tenellum* as a junior synonym of *E. capillare*. Contrary opinions were expressed by Calder (1972, p. 226) and Hirohito (1977, p. 13), who considered *E. tenellum* auct. distinct in having smaller and less-branched colonies, and in possessing gonophores on complete rather than atrophied hydranths (Calder, 1988, p. 43).

4. As part of studies on the genus *Eudendrium*, we recently examined the type material of *E. tenellum* described by Allman (1877). The cnidome, from an examination of scarce coenosarc material, was found to comprise small microbasic euryteles as in *E. capillare*. On the other hand, the study of Hirohito's (1988) material of *E. tenellum* auct. (the female colonies numbered 1078 (Japan, Samejima, Hayama, 11.vi.1934)) revealed the presence of macrobasic euryteles, $20\text{--}27 \times 7\text{--}10 \mu\text{m}$. Therefore, while the identity of *Eudendrium tenellum* Allman, 1877 remains in doubt, we consider it possibly conspecific with *Eudendrium capillare* Alder, 1856 and clearly different from *Eudendrium tenellum* auct., a well-known hydroid with widespread distribution.



Proposed neotype of *Eudendrium tenellum* Allman, 1877. A. One fascicled colony; B. Hydranth; C. Immature female gonophores; D. Mature female gonophores. (Scale bars: A=2 mm; B,C,D=200 microns).

5. In order to conserve the specific name *Eudendrium tenellum* in its accustomed use, we propose that all previous type fixations for *E. tenellum* Allman, 1877 are set aside and that a neotype consistent with common usage is designated; a suitable specimen as the neotype would be a colony from a jar labelled 1078 (Japan, Samejima, Hayama, 11.vi.1934, no depth, alcohol preserved, det. Hirohito; to be deposited in the collection of the United States National Museum, Washington D.C.) described by Hirohito (1988).

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the nominal species *Eudendrium tenellum* Allman, 1877 and to designate specimen 1078 described by Hirohito (1988) as the neotype;
- (2) to place on the Official List of Specific Names in Zoology the name *tenellum* Allman, 1877, as published in the binomen *Eudendrium tenellum* and as defined by the neotype designated in (1) above.

References

- Alder, J.** 1856. A notice of some new genera and species of British hydroid zoophytes. *Annals and Magazine of Natural History*, Series 2, **18**(107): 353–362.
- Allman, G.J.** 1877. Report on the Hydroida collected during the exploration of the Gulf Stream by L.F. de Pourtalès, assistant United States Coast Survey. *Memoirs of the Museum of Comparative Zoology at Harvard College*, **5**(2): 1–66.
- Bonnevie, K.** 1899a. Neue norwegische Hydroiden. *Bergens Museums Aarbog*, **1898**(5): 1–16.
- Bonnevie, K.** 1899b. Hydroida. In: *Den Norske Nordhavs-Expedition 1876–1878*, **XXVI** (Zoology): 1–104.
- Calder, D.R.** 1972. Some athecate hydroids from the shelf waters of northern Canada. *Journal of the Fisheries Research Board of Canada*, **29**(3): 217–228.
- Calder, D.R.** 1988. Shallow-water hydroids of Bermuda. The Athecatae. *Life Sciences Contributions, Royal Ontario Museum*, **148**: 1–107.
- Christiansen, B.O.** 1972. The hydroid fauna of the Oslo Fjord in Norway. *Norwegian Journal of Zoology*, **20**: 279–310.
- Fraser, C.M.** 1937. *Hydroids of the Pacific coast of Canada and the United States*. 208 pp. University of Toronto Press, Toronto.
- Fraser, C.M.** 1944. *Hydroids of the Atlantic coast of North America*. 451 pp. University of Toronto Press, Toronto.
- Fraser, C.M.** 1948. Hydroids of the Allan Hancock Pacific Expeditions since March, 1938. *Allan Hancock Pacific Expeditions*, **4**(5): 179–343.
- Hirohito.** 1977. Five hydroid species from the Gulf of Aqaba, Red Sea. *Publications of the Biological Laboratory, Imperial Household, Tokyo*, **1977**(11): 1–26.
- Hirohito.** 1988. The hydroids of Sagami Bay. (Part 1. Athecata). *Publications of the Biological Laboratory, Imperial Household, Tokyo*, **1988**: 1–179 (English text), 1–110 (Japanese text).
- Kramp, P.L.** 1943. Hydroida. In: *The Zoology of East Greenland. Meddelelser om Grønland*, **121**(11): 1–52.
- Marques, A.C.** 2001. O gênero *Eudendrium* (Hydrozoa, Anthomedusae, Eudendriidae) no Brasil. *Papéis avulsos de Zoologia*, **41**(22): 329–405.
- Marques, A.C., Mergner, H., Höinghaus, R., Santos, C.M.D. & Vervoort, W.** 2000a. Morphological study and taxonomical notes on Eudendriidae (Cnidaria: Hydrozoa: Athecatae/Anthomedusae). *Zoologische Mededelingen, Leiden*, **74**(5): 75–118.
- Marques, A.C., Peña Cantero, A.L. & Vervoort, W.** 2000b. Mediterranean species of *Eudendrium* (Hydrozoa, Anthomedusae, Eudendriidae) with the description of a new species. *Journal of Zoology*, **252**(2): 197–213.
- Naumov, D.** 1960. *Gidroidy i gidromeduzy morskikh, solonovatovodnykh i presnovodnykh basseinov SSSR. Opredeliteli po faune SSSR, Izdavaemye Zoologicheskim Institutom*

Akademii Nauk SSSR, **70**: 1–626. (Russian). English translation by Israel Program for scientific translations, cat. no. 5108, as ‘*Hydroids and Hydromedusae of the USSR*’, 1–631 (1969).

Stechow, E. 1923. Zur Kenntnis der Hydroidenfauna des Mittelmeeres, Amerikas und anderer Gebiete. II. Teil. *Zoologische Jahrbücher, Abteilung für Systematik, Ökologie und Geographie der Tiere*, **47**(1): 29–270.

Yamada, M. 1954. Species of the genus *Eudendrium* from Japan. *Publications from the Akkeshi Marine Biological Station*, **2**: 1–19.

Yamada, M. 1959. Hydroid fauna of Japanese and its adjacent waters. *Publications from the Akkeshi Marine Biological Station*, **9**: 1–101.

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Case 3300***Halipegus occidualis* Krull, 1935 and *Halipegus eccentricus* Thomas, 1939 (Digenea, HEMIURIDAE): proposed conservation of the specific names**

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Abstract. The purpose of this application, under Article 23.9.3 and Recommendation 23A of the Code, is to conserve the specific names of *Halipegus occidualis* Krull, 1935 and *Halipegus eccentricus* Thomas, 1939 for two species of hemiurid digeneans known to parasitize ranid frogs and various freshwater pulmonate snails. The names are threatened by two senior names, the homonym *Halipegus occidualis* Stafford, 1905 and the synonym *Cercaria projecta* Willey, 1930.

Keywords. Nomenclature; taxonomy; Digenea; HEMIURIDAE; *Halipegus occidualis*; *Cercaria projecta*; *Halipegus eccentricus*; *Halipegus projecta*; Gastropoda; *Helisoma anceps*; Amphibia; RANIDAE; *Rana catesbeiana*; *Rana clamitans*; parasitic worms; North America.

1. Stafford (1905, p. 687) described the hemiurid parasite *Halipegus occidualis* on the basis of 37 specimens collected from the ‘mouth’ of the bullfrog *Rana catesbeiana* Shaw, 1802 from eastern Canada. Previously Stafford (1900, p. 409) had misidentified the species as *Halipegus ovocaudatum* (Vulpian, 1859), but in that paper he was more specific about the site of collection within the host, stating that his collections came ‘more frequently from the eustachian tubes, in a fold along the inner edge of the jaw bone, at the entrance of the posterior nares and round the entrance to the oesophagus. In one frog I lately found 11 specimens of this worm chiefly at the entrance and even deep in the eustachian tube and at the entrance of the oesophagus’. Stafford (1900) also states “I have not yet seen [*D. ovocaudatum*] . . . under the tongue.” Clearly, Stafford was looking for *Halipegus* under the tongue and did not find it there. However inadequate Stafford’s (1905, p. 688) description was, he also noted that the egg filament lengths on which he based his description were ‘about’ 56 μm , a detail later to prove of significance. Stafford (1905) did not designate type material or figure the species, although a recently discovered specimen of *Halipegus* from the Stafford Collection now in the Canadian Museum of Nature, Ottawa (CMNP 1900–1629) was probably used in the course of preparing the description and should therefore be considered a syntype.

2. The specimen (CMNP 1900–1629) bears the remains of an original University of Toronto label identifying it as *Distomum ovocaudatum* and a replacement label states it was collected from *Rana catesbeiana*. Stafford (1900) listed his address as the Biological Department, University of Toronto, whereas by 1905 Stafford was writing from McGill University, Montreal, supporting the supposition that this specimen is one of the 37 worms on which Stafford (1905) based his description of *Halipegus*

occidualis. The specimen is 3.4 mm in length and 0.92 mm at greatest width, within the range of measurements reported by Stafford (1905) in his description. Nine egg filament lengths I was able to measure are 47 μm , 47 μm , 48 μm , 48 μm , 48 μm , 49 μm , 50 μm , 52 μm and 53 μm . These measurements are clearly incomplete; as McAlpine and Burt (1998) noted, it is virtually impossible to get precise egg filament measurements from mounted *Halipegus* in utero. Nonetheless, it is obvious that the egg filaments in CMNP 1900–1629 are of the short filament type and cannot be confused with the egg filaments of 160–200 μm reported by Krull (1935).

3. Krull (1935, p. 129), recognizing the inadequacies of Stafford's (1905) description, redescribed, figured and worked out the life cycle of worms he believed were *Halipegus occidualis* Stafford, 1905. Krull (1935, p. 135) collected the worms on which he worked from 'under the tongue of a large green frog, *Rana clamitans*' from Maryland and reported egg filaments of 160–200 μm . However, due to the inadequacy of Stafford's (1905) description and the detail provided by Krull (1935), the latter description has provided the basis for usage of the name *H. occidualis* for a parasite possessing long-type egg filaments found under the tongue of frogs (Goater, Mulvey & Esch, 1990; Zelmer & Esch, 1999). Although, Krull's (1935) material is no longer extant, material deposited in the United States National Parasite Collection by D.A. Zelmer (Zelmer & Esch, 1999) has been identified as *H. occidualis* on the basis of the description by Krull (1935). I therefore here designate one of these specimens (USNPC 087687.00) as the neotype of *H. occidualis* Krull, 1935.

4. Thomas (1939, p. 207) described, figured, and worked out the life cycle of *Halipegus eccentricus*, which he believed was distinct from *H. occidualis* Stafford, 1905, on the basis of worms collected from wild-caught *R. catesbeiana* and *R. clamitans* Latreille, 1801 from Michigan and laboratory-reared *Rana pipiens* Schreber, 1782. Thomas (1939, p. 208) reported that adult worms were collected from the eustachian tube of frogs and had an egg filament length of 56–58 μm . Therefore, from the original description, *Halipegus eccentricus* seems to be essentially identical with the nominal species *H. occidualis* (see Stafford, 1900, 1905). The holotype designated by Thomas (1939, p. 208) is in the United States National Parasite Collection, Henry A. Wallace Beltsville Agricultural Research Centre near Washington, D.C. (USNPC 9203). Adult worms of North American species of *Halipegus* are virtually indistinguishable although their cystophorus cercariae are unique. However, adults of *H. occidualis* (sensu Krull, 1935) and *H. eccentricus* Thomas, 1939 may be separated on the basis of molecular methods, site of infection and length of egg filaments (Goater, Browne & Esch, 1990; Goater, Mulvey & Esch, 1990). Not surprisingly, the matter has become confused in that workers have widely followed the description by Thomas (1939) and have applied the name *H. eccentricus* to worms with a short egg filament taken from the eustachian tubes of frogs (e.g. Ameel, Cort & Van Der Woude, 1949; Goater, Mulvey & Esch, 1990; Guilford, 1961; Wetzel & Esch, 1996a, 1996b, 1997; Zelmer & Esch, 1999).

5. Since these *Halipegus* species mature under the tongue or in the eustachian tubes of the definitive amphibian host, both worm and host can be examined in the field and released unharmed. For this reason, these digeneans have offered unique opportunities to link host behavioural ecology with parasite population dynamics. North American *Halipegus* species have been the focus of numerous recent research projects (Crews & Esch, 1986; Shostak & Esch, 1990a, 1990b; Fernandez & Esch,

1991a, 1991b; Wetzel & Esch, 1996a; Esch, Wetzel, Zelmer & Schotthoefner, 1997; Zelmer & Esch, 1998; Zelmer, Wetzel & Esch, 1999) and undoubtedly will be the subject of such studies in the future. The description of *H. eschi* Zelmer & Brooks 2000, from Costa Rica, and the recent discovery of this species in Mexican frogs, further emphasizes the importance of resolving the current usage of the names of North American *Halipegus*.

6. McAlpine & Burt (1998) published the new combination *Halipegus projecta* (Willey, 1930) for the species Krull (1935) identified as *H. occidualis*. Krull (1935, p. 131) also suggested that his worms might well be the same species described and figured as *Cercaria projecta* in the cercarial stage by Willey (1930, p. 481) from the pulmonate snail *Helisoma anceps* (Menke, 1830); McAlpine & Burt (1998) agreed. No type material of *C. projecta* seems to exist and the name had been unused until it was resurrected by McAlpine & Burt (1998). Although I still believe, with Krull (1935), that *C. projecta* is likely to be a senior synonym for *H. occidualis* sensu Krull (1935), due to the absence of type material and inadequacies in the original description by Willey (1930), the nominal species *Cercaria projecta* cannot be identified without doubt. In the interests of avoiding further confusion within the genus *Halipegus*, the name should be suppressed as a nomen dubium.

7. McAlpine & Burt (1998), contrary to the then prevailing usage (e.g. Ameel, Cort & Van Der Woude, 1949; Crews & Esch, 1986; Fernandez & Esch, 1991a; Jones, 1956; Goater, Browne & Esch, 1990; Goater, Mulvey & Esch, 1990; Guilford, 1961; Shostak & Esch, 1990a; Wetzel & Esch 1997; Zelmer, Wetzel & Esch, 1999), followed the Principle of Priority for North American species of *Halipegus*. Zelmer & Esch (1999) objected, stating that such a proposal undermined nomenclatural stability within the genus. Nonetheless, Zelmer & Esch (1999, p. 159) further confused the matter by reporting that the name *H. occidualis* remained unstable for lack of a name-bearing type and suggested that Stafford's original description was a composite of more than one species. They then attempted to stabilize the name by describing characters of the terminal genitalia of adult specimens selected in the cercarial stage on the basis of the description provided by Krull (1935).

8. The nomenclatural history of North American *Halipegus* species is confusing. Neither McAlpine & Burt (1998) nor Zelmer & Esch (1999), in spite of their efforts, have reduced this confusion. Conservation of the name *Halipegus occidualis* Krull, 1935 as a then new nominal species and suppression of the names *H. occidualis* Stafford, 1905 as a senior homonym of doubtful identity and *Cercaria projecta* Willey, 1930, as a nomen dubium, would allow application of the name *H. occidualis* Krull, 1935 to worms with long-type egg filaments parasitic under the tongue of frogs. The name *Halipegus eccentricus* Thomas, 1939 could then be applied to those worms with short-type egg filaments inhabiting the eustachian tubes of frogs, thereby conserving prevailing usage. The case is referred to the Commission under Article 23.9.3 and Recommendation 23A of the Code.

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power:

(a) to suppress for the purposes of both the Principle of Priority and the Principle of Homonymy the name *occidualis* Stafford, 1905, as published in

the binomen *Halipegus occidualis*, and all uses of the name prior to that by Krull (1935);

- (b) to suppress for the purposes of the Principle of Priority but not for those of the Principle of Homonymy the name *projecta* Willey, 1930, as published in the binomen *Cercaria projecta*;
- (2) to place on the Official List of Specific Names in Zoology the following names:
- (a) *occidualis*, Krull, 1935, as published in the binomen *Halipegus occidualis*;
- (b) *eccentricus* Thomas, 1939, as published in the binomen *Halipegus eccentricus*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
- (a) *occidualis* Stafford, 1905, as published in the binomen *Halipegus occidualis*, and as suppressed as in (1) (a) above;
- (b) *projecta* Willey, 1930, as published in the binomen *Cercaria projecta*, and as suppressed as in (1) (b) above.

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References

- Ameel, D.J., Cort, W.W. & Van Der Woude, A. 1949. Germinal development in the mother sporocyst and redia of *Halipegus eccentricus* Thomas, 1939. *Journal of Parasitology*, **35**: 569–578.
- Crews, A.E. & Esch, G.W. 1986. Seasonal dynamics of *Halipegus occidualis* (Trematoda: Hemiuridae) in *Helisoma anceps* and its impact on the fecundity of the snail host. *Journal of Parasitology*, **72**: 646–651.
- Esch, G.W., Wetzel, E.J., Zelmer, D.A. & Schotthoefler, A.M. 1997. Long-term changes in parasite population and community structure: a case history. *American Midland Naturalist*, **137**: 369–387.
- Fernandez, J. & Esch, G.W. 1991a. Guild structure of larval trematodes in the snail, *Helisoma anceps*: patterns and processes at the individual host level. *Journal of Parasitology*, **77**: 528–539.
- Fernandez, J. & Esch, G.W. 1991b. The component community structure of larval trematodes in the pulmonate snail *Helisoma anceps*. *Journal of Parasitology*, **77**: 540–550.
- Goater, T.M., Browne, C.L. & Esch, G.W. 1990. On the life history and functional morphology of *Halipegus occidualis* (Trematoda: Hemiuridae), with emphasis on the cystophorous cercaria stage. *International Journal of Parasitology*, **20**: 923–934.
- Goater, T.M., Mulvey, M. & Esch, G.W. 1990. Electrophoretic differentiation of two *Halipegus* (Trematoda: Hemiuridae) congeners in an amphibian population. *Journal of Parasitology*, **76**: 431–434.
- Guilford, H.G. 1961. Gametogenesis, egg-capsule formation, and early miracidial development in the digenetic trematode *Halipegus eccentricus* Thomas. *Journal of Parasitology*, **47**: 757–764.
- Jones, A.W. 1956. The chromosomes of a species of *Halipegus* Loos, 1899 (Digenea: Hemiuridae). *Journal of the Tennessee Academy of Science*, **31**: 186–187.
- Krull, W.H. 1935. Studies on the life history of *Halipegus occidualis* Stafford, 1905. *American Midland Naturalist*, **16**(2): 129–143.
- McAlpine, D.F. & Burt, M.D.B. 1998. Taxonomic status of *Halipegus* spp. (Digenea: Derogenidae) parasitic in the mouth and eustachian tubes of North American and

- Mexican amphibians. *Journal of the Helminthological Society of Washington*, **65**: 10–15.
- Shostak, A.W. & Esch, G.W.** 1990a. Temperature effects on survival and excystment of cercariae of *Halipegus occidialis* (Trematoda). *International Journal of Parasitology*, **20**: 95–99.
- Shostak, A.W. & Esch, G.W.** 1990b. Photocycle-dependent emergence by cercariae of *Halipegus occidialis* from *Helisoma anceps*, with special reference to cercarial emergence patterns as adaptations to transmission. *Journal of Parasitology*, **76**: 790–795.
- Stafford, J.** 1900. Some undescribed trematodes. *Zoologische Jahrbücher, Abteilung für Systematik, Geographie, und Biologie*, **13**: 399–414.
- Stafford, J.** 1905. Trematodes from Canadian vertebrates. *Zoologischer Anzeiger*, **28**: 681–694.
- Thomas, L.J.** 1939. Life cycle of a fluke, *Halipegus eccentricus* n.sp. found in the ears of frogs. *Journal of Parasitology*, **25**: 207–221.
- Wetzel, E.J. & Esch, G.W.** 1996a. Seasonal population dynamics of *Halipegus occidialis* and *Halipegus eccentricus* (Digenea: Hemiuridae) in their amphibian host, *Rana clamitans*. *Journal of Parasitology*, **82**: 414–422.
- Wetzel, E.J. & Esch, G.W.** 1996b. Influence of odonate intermediate host ecology on the infection dynamics of *Halipegus* spp., *Haematoleechus longiplexus*, and *Haematoleechus complexus* (Trematoda: Digenea). *Journal of the Helminthological Society of Washington*, **63**: 1–7.
- Wetzel, E.J. & Esch, G.W.** 1997. Intrapopulation dynamics of *Halipegus occidialis* and *Halipegus eccentricus* (Digenea: Hemiuridae): Temporal changes within individual hosts. *Journal of Parasitology*, **83**: 1019–1024.
- Willey, C.H.** 1930. A cystophorous cercaria, *C. projecta* n.sp. from the snail, *Helisoma antrosa*, North America. *Parasitology*, **22**: 481–489.
- Zelmer, D.A. & Esch, G.W.** 1998. Bridging the gap: the odonate naiad as a paratenic host for *Halipegus occidialis*. *Journal of Parasitology*, **84**: 94–96.
- Zelmer, D.A. & Esch, G.W.** 1999. Reevaluation of the taxonomic status of *Halipegus occidialis* Stafford, 1905 (Digenea: Hemiuridae). *Journal of Parasitology*, **85**: 157–160.
- Zelmer, D.A., Wetzel, E.J. & Esch, G.W.** 1999. The role of habitat in structuring *Halipegus occidialis* metapopulations in the green frog. *Journal of Parasitology*, **85**: 19–24.

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Case 3331

***Cambalida coriacea* Simon, 1909 (Arachnida, Araneae): proposed conservation of the specific name by the suppression of *Castianeira fulvipes* Simon, 1896**

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Abstract. The purpose of the application, under Article 23.9.3 of the Code, is to conserve the specific name of *Cambalida coriacea* Simon, 1909 for a species of spider from Africa. The name is threatened by the discovery that the type specimen of *Cambalida coriacea* is the same species as that of *Castianeira fulvipes* Simon, 1896. The senior synonym has not been used for the taxon since it was established and its proposed suppression would maintain nomenclatural stability.

Keywords. Nomenclature; taxonomy; CLUBIONIDAE; MICARIINAE; CORINNIDAE; *Cambalida*; *Cambalida coriacea*; Afrotropical Region; spiders.

1. Simon (1909, p. 369) established the nominal genus *Cambalida* with the type species *Cambalida insulana* Simon, 1909 (p. 369) (CLUBIONIDAE, MICARIINAE) from Annobon Island, west of Gabon. Two additional species were described in the genus *Cambalida* in the same paper, *C. fulvipes* (p. 369) from Bolama, Portuguese Guinea (Guinée Bissau) and *C. coriacea* (p. 370) from Freetown, Sierra Leone. One species in particular, *C. coriacea*, is widespread throughout the Afrotropical Region and is associated with a wide diversity of habitats including forests, woodlands, savanna, grassland and fynbos, as well as agroecosystems.

2. The CORINNIDAE remains one of the most poorly-studied families of spiders in the Afrotropical Region (Dippenaar-Schoeman & Jocqué, 1997; Haddad, 2004) and many species have been referred to only in their original descriptions (see Platnick, 2004). *Cambalida* is no exception to this paucity of taxonomic research, with only one reference to *C. coriacea* having been published since the original description (Bosselaers & Jocqué, 2000). The nominal genus *Cambalida* was included in the family LIOCRANIDAE following Lehtinen's (1967, pp. 290–292) revision of the status of the clubionid subfamily LIOCRANINAE to family rank. Brignoli (1983) then transferred *Cambalida* from the CLUBIONIDAE (p. 547) to the GNAPHOSIDAE (MICARIINAE incertae sedis), but under this family-group placement (p. 582) he added a note on *Cambalida*: 'uncertain position according to Reiskind, 1969: 196'. Platnick (1989, p. 433; 1993, p. 600; 1997, p. 695) followed Lehtinen's placement and listed *Cambalida* under the family LIOCRANIDAE. Recently, Dippenaar-Schoeman & Jocqué (1997, p. 128) listed *Cambalida* under the CORINNIDAE (CASTIANEIRINAE) without formally transferring the genus from the LIOCRANIDAE, an action which was undertaken soon afterwards by Bosselaers & Jocqué (2000, p. 315). This was supported by a cladistic analysis

undertaken by Bosselaers & Jocqué (2002, p. 264), who found *Cambalida* to be one of the most closely related genera to the castianeirine type genus *Castianeira* Keyserling, 1879.

3. During a revision of the genus in southern and central Africa it has been discovered that the holotype of *Castianeira fulvipes* Simon, 1896 (p. 406), described from Pretoria, South Africa, agrees with that of *Cambalida coriacea*, rendering *C. fulvipes* a senior synonym. However, this species should in fact be placed in *Cambalida* and not *Castianeira*. All species in the genus *Cambalida* have exceptionally large eyes for castianeirines and all males appear to have diagnostic setae at the distal end of the cymbium, which are arranged in two or three columns of three setae each. *Castianeira depygata* Strand, 1916 (p. 91) and *Castianeira mestralli* Lessert, 1921 (p. 424) are also junior synonyms of this species. Synonymy of these nominal species would give the name *Cambalida fulvipes* (Simon, 1896) priority over *Cambalida fulvipes* Simon, 1909, which is in current use as the valid name for another taxon. Confusion would result from the use of *C. fulvipes* (Simon, 1896) for the taxon currently known as *C. coriacea*. The name *C. fulvipes* Simon, 1909 would therefore be invalid as a junior secondary homonym.

4. The conditions of Article 23.9.1.1 have been met in this case (that the senior synonym has not been used as a valid name since 1899). However, the conditions of Article 23.9.1.2 (that the junior synonym or homonym has been used for a particular taxon, as its presumed valid name, in at least 25 works, published by at least 10 authors in the immediately preceding 50 years) have not been met. The latter is a consequence of the limited study of this family in the Afrotropical Region. It is proposed that the name *Castianeira fulvipes* Simon, 1896 be suppressed to prevent confusion. The name *C. coriacea* would thereby be conserved.

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the name *fulvipes* Simon, 1896, as published in the binomen *Castianeira fulvipes*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Specific Names in Zoology the name *coriacea* Simon, 1909, as published in the binomen *Cambalida coriacea*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *fulvipes* Simon, 1896, as published in the binomen *Castianeira fulvipes* and as suppressed in (1) above.

References

- Bosselaers, J. & Jocqué, R.** 2000. Studies in Corinnidae: transfer of four genera and description of the female of *Lessertina mutica* Lawrence 1942. *Tropical Zoology*, **13**: 305–325.
- Bosselaers, J. & Jocqué, R.** 2002. Studies in Corinnidae: cladistic analysis of 38 corinnid and liocranid genera, and transfer of Phrurolithinae. *Zoologica Scripta*, **31**: 241–270.
- Brignoli, P.M.** 1983. *A catalogue of the Araneae described between 1940 and 1981*. 755 pp. Manchester University Press, Manchester.
- Dippenaar-Schoeman, A.S. & Jocqué, R.** 1997. *African spiders: an identification manual*. 392 pp. Plant Protection Research Institute Handbook No. 9, Agricultural Research Council, Pretoria.
- Haddad, C.R.** 2004. A revision of the African spider genus *Graptartia* Simon, 1896 (Araneae: Corinnidae). *African Entomology*, **12**: 71–81.

- Lehtinen, P.T.** 1967. Classification of the cribellate spiders and some allied families, with notes on the evolution of the suborder Araneomorpha. *Annales Zoologici Fennici*, **4**: 199–468.
- Lessert, R. de.** 1921. Araignées du Kilimandjaro et du Merou (suite). 4. Clubionidae. *Revue suisse de Zoologie*, **28**: 381–442.
- Platnick, N.I.** 1989. *Advances in Spider Taxonomy 1981–1987: A Supplement to Brignoli's 'A Catalogue of the Araneae described between 1940 and 1981'*. 673 pp. Manchester University Press, Manchester.
- Platnick, N.I.** 1993. *Advances in spider taxonomy 1988–1991, with synonymies and transfers 1940–1980*. 846 pp. New York Entomological Society, New York.
- Platnick, N.I.** 1997. *Advances in spider taxonomy 1992–1995 with redescriptions 1940–1980*. 976 pp. New York Entomological Society, New York.
- Platnick, N.I.** 2004. The World Spider Catalog, version 5.0. American Museum of Natural History, online at <http://research.amnh.org/entomology/spiders/catalog/index.html>
- Simon, E.** 1896. Descriptions d'araignées nouveaux de la famille des Clubionidae. *Annales de la Société entomologique de Belgique*, **40**: 400–422.
- Simon, E.** 1909. Arachnides recueillis par L. Fea sur la côte occidentale d'Afrique. 2ème partie. *Annali del Museo Civico di Storia Naturale Genova*, **44**: 335–449.
- Strand, E.** 1916. Zentralafrikanische Clubioniden. In *Wissenschaftliche Ergebnisse der Deutschen Zentral Afrika Expedition 1907–1908, unter Führung Adolf Friedrichs, Herzogs zu Mecklenberg*. *Archiv für Naturgeschichte*, **81**(A11): 79–98.

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Case 3332***Cercophonius brachycentrus bivittatus* Thorell, 1877 (currently *Orobothriurus bivittatus*; Arachnida, Scorpiones): replacement of the holotype by the designation of a neotype**

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Abstract. The purpose of this application, under Article 75.5 of the Code, is to replace the holotype of the scorpion *Cercophonius brachycentrus bivittatus* Thorell, 1877 (currently *Orobothriurus bivittatus*) from Argentina by the designation of a neotype. The taxonomic identity of *O. bivittatus* was recently assessed through hemispermaphore morphology, a feature present only in adult males. The holotype of *bivittatus* is a damaged juvenile, lacking definitive characters essential for specific identification within the genus *Orobothriurus*. It is proposed that all previous type fixations for *Cercophonius brachycentrus bivittatus* are set aside and a neotype is designated.

Keywords. Nomenclature; taxonomy; Arachnida; Scorpiones; BOTHRIURIDAE; *Orobothriurus*; *Orobothriurus bivittatus*; scorpions; Argentina.

1. Thorell (1877, p. 183) described the scorpion *Cercophonius brachycentrus* var. β *bivittatum* [recte *bivittatus*] (currently *Orobothriurus bivittatus*) from San Juan Province in Argentina. The species was largely neglected in the literature (see Acosta, 2002, 2005 for a historical account). Although Maury (1977) suggested it to be a junior synonym of *Bothriurus alticola* Pocock, 1899 (currently *Orobothriurus alticola*), until recently *bivittatus* was regarded as a subspecies of *Urophonius brachycentrus* (Thorell, 1877) (Lowe & Fet, 2000). Acosta (2002) accepted the synonymy of *Orobothriurus bivittatus* (Thorell, 1877) and *Orobothriurus alticola* (Pocock, 1899). Since the senior but little used name *bivittatus* took priority over the well known specific name *alticola*, Acosta (2002) also applied to the Commission to give *alticola* precedence over *bivittatus*, whenever these names are considered synonyms. The Commission approved this proposal (Opinion 2074, June 2004).

2. The holotype of *Orobothriurus bivittatus*, Naturhistoriska Riksmuseet, Stockholm, is a very small and poorly preserved juvenile, providing little information on the species identity. It is incomplete; only carapace, mesosoma and caudal segments I-IV remain together with the left pedipalp trochanter and femur, right I-II legs (I without telotarsus), and pectines; metasomal segment V and right pedipalp are loose; all remaining body parts or appendages are missing (Acosta, 2005).

3. The high altitude genus *Orobothriurus* is poorly known, with a presumed high degree of endemism in the Andes and Andes-related ranges (Acosta & Ochoa, 2001; Ochoa, 2004). The possibility of the existence of further species of this genus

(including better preserved specimens of *Orobothriurus bivittatus*) was already suggested at the time when the conditional precedence of *Orobothriurus alticola* over *O. bivittatus* was proposed (Acosta, 2002). The original details of the type locality of *Orobothriurus bivittatus* were imprecise (merely 'San Juan'), but through a careful analysis of all data available, including the report of the trip of the presumable collector of the holotype (Echegaray, 1878), Acosta (2005) was able to determine that the holotype of *Orobothriurus bivittatus* was most likely collected along the so-called 'camino del Tontal' ('Tontal road', province of San Juan, Argentina), which crosses the isolated range Sierra del Tontal at about 3600 m. One adult male of *Orobothriurus bivittatus* was subsequently collected at this site and described, providing for the first time relevant taxonomic information, especially on hemispermaphore morphology (Acosta, 2005). Acosta (2005) showed that *Orobothriurus bivittatus* is indeed a valid species, though very close to *O. alticola*. While the external morphology does not give any conclusive diagnostic feature, the hemispermaphore shows distinct differences between the two species (Acosta, 2005).

4. The taxonomic identity of *Orobothriurus bivittatus* cannot be adequately determined from the holotype, which is a poorly preserved juvenile, i.e. the name *bivittatus*, if based on this specimen, may be considered as a nomen dubium, thereby threatening the stability of the taxonomy of the genus *Orobothriurus*. On the other hand, the male specimen collected at Sierra del Tontal (Parque Nacional El Leoncito, near 'Portezuelo del Tontal' (3450 m), 25-xi-2003, L. Acosta coll.), displays definitive characters essential for specific identification within the genus. This specimen is stored at Colección Aracnológica, Cátedra de Diversidad Animal I, Facultad de Ciencias Exactas, Físicas y Naturales, Universidad Nacional de Córdoba, Argentina (CDA 000.364). Full details, especially conditions qualifying this material as neotype, are given in Acosta (2005).

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous fixations of the name-bearing type for *bivittatus* Thorell, 1877, as published in the trinomen *Cercophonius brachycentrus bivittatus*, and to designate as neotype male specimen CDA 000.364, in the Universidad Nacional de Córdoba, Argentina;
- (2) to emend the entry on the Official List of Specific Names in Zoology for *bivittatus* Thorell, 1877, as published in the trinomen *Cercophonius brachycentrus bivittatus*, to record that it is defined by the neotype designated in (1) above.

References

- Acosta, L.E. 2002. Case 3213. *Bothriurus alticola* Pocock, 1899 (Arachnida, Scorpiones): proposed precedence of the specific name over the subspecific name of *Cercophonius brachycentrus bivittatus* Thorell, 1877. *Bulletin of Zoological Nomenclature*, **59**(3): 176–179.
- Acosta, L.E. 2005. Rediscovery of *Orobothriurus bivittatus* (Thorell 1877) stat. n., comb. n. in the Sierra del Tontal, Argentina (Scorpiones, Bothriuridae). *Zootaxa*, **916**: 1–15.
- Acosta, L.E. & Ochoa, J.A. 2001. Two new species of *Orobothriurus* Maury, 1976 from Argentina and Peru, with comments on the systematics of the genus (Scorpiones: Bothriuridae). Pp. 203–214 in Fet, V. & Selden, P.A. (Eds.), *Scorpions 2001. Memoriam Gary A. Polis*. British Arachnological Society, Burnham Beeches, Bucks.

- Echegaray, S.** 1878. Determinación de plantas sanjuaninas. *Boletín de la Academia Nacional de Ciencias*, Córdoba, **2**: 341–353.
- Lowe, G. & Fet, V.** 2000. Family Bothriuridae Simon, 1880. Pp. 17–53 in Fet, V., Sissom, W.D., Lowe, G. & Braunwalder, M.E., *Catalog of the Scorpions of the World (1758–1998)*. New York Entomological Society, New York.
- Maury, E.A.** 1977. Comentario sobre dos especies de escorpiones del género *Urophonius* (Bothriuridae). *Revista del Museo Argentino de Ciencias Naturales 'Bernardino Rivadavia', Entomología*, **5**(7): 143–160.
- Ochoa, J.A.** 2004. Filogenia del género *Orobothriurus* y descripción de un nuevo género de Bothriuridae (Scorpiones). *Revista Ibérica de Aracnología*, **9**: 43–73.
- Pocock, R.I.** 1899. Scorpions and spiders. Pp. 356–358 in FitzGerald, E.A. (Ed.), *The Highest Andes*. Methuen & Co., London.
- Thorell, T.** 1877. Études scorpiologiques. *Atti della Società Italiana di Scienze Naturali*, **19**: 75–272.

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Case 3322***Baetis pentaplebodes* Ujhelyi, 1966 (Insecta, Ephemeroptera):
proposed precedence over *Baetis nexus* Navás, 1918**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Baetis pentaplebodes* Ujhelyi, 1966 for a well-known European mayfly (family BAETIDAE). The name is threatened by the senior subjective synonym *Baetis nexus* Navás, 1918, which has been seldom used since its first publication. Therefore, precedence of the name *Baetis pentaplebodes* Ujhelyi, 1966 is proposed.

Keywords. Nomenclature; taxonomy; Ephemeroptera; BAETIDAE; *Baetis pentaplebodes*; *Baetis nexus*; Hungary; Spain; mayflies.

1. The mayfly species *Baetis nexus* was described in 1918 (Navás, 1918, pp. 38–39) from the type locality San Joan de l'Erm, Catalonia, Spain, and since then, prior to Alba-Tercedor's (2002) revision, the name had been mentioned only five times, by Müller-Liebenau (1969), Puthz (1978) (in both cases as nomina dubia), Alba-Tercedor (1981, 1984) and Alba-Tercedor & Peters (1985).

2. However, the same species is well known under the name *Baetis pentaplebodes* Ujhelyi, 1966. Since its original description from Hungary (Ujhelyi, 1966, pp. 206–210), type locality Veresegyház, it has been mentioned in faunistic lists (Keffermüller, 1972; Soldán, 1978; Kazanci, 1984; Thomas et al., 1986; Adam, 1991; Bauernfeind & Weichselbaumer, 1991; Russev, 1993), Ephemeroptera check-lists (Puthz, 1978), autoecological studies (Camousseight & Fontaine, 1990), identification keys (Bauernfeind, 1994; Bauernfeind & Humpesch, 2001), morphological papers (egg description by Kopelke & Müller-Liebenau, 1981) and in the red lists of threatened species (Sowa, 1992).

3. Alba-Tercedor (2002, p. 78) proposed the synonymy of *Baetis pentaplebodes* Ujhelyi, 1966 and *Baetis nexus* Navás, 1918 and suggested that the latter name should be used as valid. This opinion was supported by Alba-Tercedor & Jáimez-Cuéllar (2003) and Jacob (2003), but not by Haybach & Malzacher (2003) or Kovács & Bauernfeind (2003).

4. Since *B. nexus* has been used as a valid name by Alba-Tercedor (2002), Alba-Tercedor & Jáimez-Cuéllar (2003) and Jacob (2003), the requirements of Article 23.9.1.1 (Reversal of Precedence) of the Code are not met. However, the name *B. pentaplebodes* has been used as a valid name in at least 35 original scientific papers, monographs and reviews since 1969 by at least 20 authors. Hence the provisions of Article 23.9.1.2 of the Code are met (see Müller-Liebenau, 1969; Keffermüller, 1972; Soldán, 1978; Landa & Soldán, 1985; Thomas et al., 1986; Grimm, 1988; Bauernfeind, 1990; Camousseight & Fontaine, 1990; Sowa, 1990; Weichselbaumer & Sowa, 1990; Adam, 1991; Bauernfeind & Weichselbaumer, 1991; Jażdżewska & Gorczynczki, 1991; Sowa, 1992; Russev, 1993; Bauernfeind, 1994; Glazaczow, 1994; Marten, 1994; Jażdżewska, 1995; Moog, 1995; Moog et al., 1995; Marten et al., 1996; Peissner et al., 1996; Thomas & Masselot, 1996; Marten, 1997; Moog et al., 1997; Schmidt-Kloiber, 1997; Marten et al., 1999; Bauernfeind & Humpesch, 2001; Horsák, 2001; Jażdżewska, 2001; Haybach & Malzacher, 2002).

5. Because the usage of the name *B. nexus* would cause confusion and instability in nomenclature and ecology, we propose that the specific name *B. pentaplebodes* be given precedence over the name *B. nexus*, whenever the two are considered to be synonyms.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *pentaplebodes* Ujhelyi, 1966, as published in the binomen *Baetis pentaplebodes*, precedence over the name *nexus* Navás, 1918, as published in the binomen *Baetis nexus*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *pentaplebodes* Ujhelyi, 1966, as published in the binomen *Baetis pentaplebodes*, with the endorsement that it is to be given precedence over the name *nexus* Navás, 1918, as published in the binomen *Baetis nexus*, whenever the two are considered to be synonyms;
 - (b) *nexus* Navás, 1918, as published in the binomen *Baetis nexus*, with the endorsement that it is not to be given priority over the name *pentaplebodes* Ujhelyi, 1966, as published in the binomen *Baetis pentaplebodes*, whenever the two are considered to be synonyms.

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References

- Adam, G. 1991. *Baetis liebenauae* Keffermüller und *Baetis pentaplebodes* Ujhelyi in Nordostbayern (Insecta, Ephemeroptera). *Lauterbornia*, **8**: 77–80.
- Alba-Tercedor, J. 1981. Recopilación de citas de Efemerópteros en la Península ibérica e Islas Baleares. *Trabajos y Monografías del Departamento de Zoología, Universidad de Granada (Nueva Serie)*, **4**: 41–81.
- Alba-Tercedor, J. 1984. A revision of the European species of the genus *Baetis* Leach, 1815 described by Reverend Longinos Navás (Baetidae) in Landa, V., Soldán, T. & Tonner, M. (Eds.), *Proceeding of the fourth international conference on Ephemeroptera*, pp. 53–59. CSAV, Bechyně.

- Alba-Tercedor, J.** 2002. A new synonymy in *Baetis*: *Baetis nexis* Navás, 1918 is the valid name of *Baetis pentaplebodes* Ujhelyi, 1966 (Ephemeroptera: Baetidae). *Aquatic Insects*, **24**: 77–79.
- Alba-Tercedor, J. & Jáimez-Cuellar, P.** 2003. Checklist and historical evolution of the knowledge of Ephemeroptera in the Iberian Peninsula, Balearic and Canary Islands. Pp. 91–97 in Gaino, E. (Ed.), *Research Update on Ephemeroptera and Plecoptera*. University of Perugia, Perugia, Italy.
- Alba-Tercedor, J. & Peters, W.L.** 1985. Types and additional specimens of Ephemeroptera studied by Longinos Navás in the Museo de Zoología del Ayuntamiento, Barcelona, Spain. *Aquatic Insects*, **7**: 217–227.
- Bauernfeind, E.** 1990. The present state of mayfly-faunistics in Austria. *Verhandlungen der Botanischen-Zoologischen Gesellschaft, Wien*, **127**: 61–82.
- Bauernfeind, E.** 1994. *Bestimmungsschlüssel für die österreichischen Eintagsfliegen (Insecta: Ephemeroptera)*. Bundesanstalt für Wassergüte, Wien.
- Bauernfeind, E. & Humpesch, U.H.** 2001. *Die Eintagsfliegen Zentraleuropas (Insecta: Ephemeroptera): Bestimmung und Ökologie*. Naturhistorisches Museum, Wien.
- Bauernfeind, E. & Weichselbaumer, P.** 1991. Mayflies records from Austria (Insecta: Ephemeroptera). *Verhandlungen der Botanischen-Zoologischen Gesellschaft, Wien*, **128**: 47–66.
- Camousseight, A. & Fontaine, J.** 1990. The biological cycle of *Baetis pentaplebodes*, Ujhelyi 1966, in an old meander of the Rhone River, France (Ephemeroptera: Baetidae). Pp. 27–34 in Campbell, I.C. (Ed.), *Mayflies and Stoneflies: Life story and Biology*. Kluwer Academic Publishers, Dordrecht.
- Glazaczow, A.** 1994. Mayflies (Ephemeroptera) from the rivers Gwda and Drawa (in the Pomeranian Lake District of North West Poland) and from some waters of their river basins. *Polskie Pismo Entomologiczne*, **63**: 213–257.
- Grimm, R.** 1988. Zur Eintagsfliegenfauna der Donauzuflüsse Rot und Rauglen (Baden-Württemberg). *Nachrichtenblatt der Bayerischen Entomologen*, **37**: 73–83.
- Haybach, A. & Malzacher, P.** 2002. Verzeichnis der Eintagsfliegen Deutschlands (Insecta: Ephemeroptera). *Entomologische Zeitschrift*, **112**: 34–45.
- Haybach, A. & Malzacher, P.** 2003. Verzeichnis der Eintagsfliegen (Ephemeroptera) Deutschlands. *Entomofauna Germanica*, **6**: 33–46.
- Horsák, M.** 2001. Contribution to the knowledge of macroinvertebrate fauna of the Dyje River downstream of the Nové Mlýny Reservoirs (Czech Republic). *Scripta Facultatis scientiarum naturalium Universitatis Masarykianae brunensis, Biologia, Supplementum*, **27**: 41–62.
- Jacob, U.** 2003. *Baetis* Leach 1815, sensu stricto oder sensu lato. Ein Beitrag zum Gattungskonzept auf der Grundlage von Artengruppen mit Bestimmungsschlüsseln. *Lauterbornia*, **47**: 59–129.
- Jajdzewska, T.** 1995. Comparison of the ephemeropteran fauna from the Swietokrzyskie Mountains and Roztocze Upland, Poland. Pp. 111–120 in Corkum, L.D. & Ciborowski, J.J.H. (Eds.), *Current directions in research on Ephemeroptera*. Canadian Scholars' Press Inc., Toronto.
- Jajdzewska, T.** 2001. Distribution in Poland of species of the *Baetis* group (Ephemeroptera, Baetidae). Pp. 259–270 in Dominguez, E. (Ed.), *Trends in Research in Ephemeroptera and Plecoptera*. Kluwer Academic/Plenum Publishers, New York.
- Jajdzewska, T. & Gorczyncki, A.** 1991. Les éphéméroptères des rivières qui franchissent la zone marginale du Roztocze Central. Pp. 263–270 in Alba-Tercedor, J. & Sanchez-Ortega, A. (Eds.), *Overviews and strategies of the Ephemeroptera and Plecoptera*. Sandhill Crane Press, Inc., Gainesville.
- Kazanci, N.** 1984. New Ephemeroptera (Insecta) from Turkey. *Aquatic Insects*, **6**: 253–258.
- Keffermüller, M.** 1972. Banadia nad fauna Jetek (Ephemeroptera) Wielkopolski V. *Polskie Pismo Entomologiczne*, **43**: 527–533.
- Kopelke, J.-P. & Müller-Liebenau, I.** 1981. Eistrukturen bei Ephemeroptera und deren Bedeutung für die Aufstellung von Artengruppen am Beispiel der europäischen Arten der

- Gattung *Baetis* Leach, 1815. Teil II : *rhodani*-, *vernus*- und *fuscatus* – Gruppe (Insecta: Baetidae). *Spixiana*, **4**: 39–54.
- Kovács, T. & Bauernfeind, E.** 2003. Checklist of the Hungarian mayfly fauna (Ephemeroptera). *Folia Entomologica Hungarica*, **64**: 69–84.
- Landa, V. & Soldán, T.** 1985. Distributional patterns, chorology and origin of the Czechoslovak fauna of mayflies (Ephemeroptera). *Acta Entomologica Bohemoslovaca*, **82**: 241–268.
- Marten, M.** 1994. Derzeitiger Kenntnisstand und historische Entwicklung der Makrozoobenthos der Donau unter besonderer Berücksichtigung der Montanregion. Pp. 157–189 in *Limnologische Berichte Donau* (1994), vol. 2. EAWAG, Dübendorf.
- Marten, M.** 1997. Ephemeroptera and Plecoptera of the River Danube in Baden-Württemberg (Germany). Pp. 167–174 in Landolt, P. & Sartori, M. (Eds.), *Ephemeroptera & Plecoptera Biology-Ecology-Systematics*. Mauron-Tinguely & Lachat SA, Fribourg.
- Marten, M., Hackbarth, W. & Otto, C.-J.** 1999. Neue Ephemeroptera- und Plecoptera-Nachweise aus Baden-Württemberg und Stand der derzeitigen Erfassung im Rahmen der biologischen Umweltbeobachtung an Fließgewässer. *Lauterbornia*, **37**: 63–86.
- Marten, M., Malzacher, P., Reusch, H., Otto, C.-J., Brinkmann, R., Roos, P., Hackbarth, W. & Gorka, M.** 1996. Ephemeroptera und Plecoptera in Baden-Württemberg – Stand der faunistischen Erforschung. *Lauterbornia*, **27**: 69–79.
- Moog, O.** 1995. *Fauna aquatica austriaca – Katalog zur autoökologischen Einstufung aquatischer Organismen*. Österreichs Bundesministerium für Land- und Forstwirtschaft, Wien.
- Moog, O., Bauernfeind, E. & Weichselbaumer, P.** 1997. The use of Ephemeroptera as saprobic indicators in Austria. Pp. 254–260 in Landolt, P. & Sartori, M. (Eds.), *Ephemeroptera & Plecoptera Biology-Ecology-Systematics*. Mauron-Tinguely & Lachat SA, Fribourg.
- Moog, O., Humpesch, U. & Konar, M.** 1995. The distribution of benthic invertebrates along the Austrian stretch of the river Danube and its relevance as an indicator of zoogeographical and water quality patterns – part 1. *Archiv für Hydrobiologie*, **101**: 121–213.
- Müller-Liebenau, I.** 1969. Revision der europäischen Arten der Gattung *Baetis* Leach, 1815 (Insecta, Ephemeroptera). *Gewässer und Abwässer*, **48/49**: 1–214.
- Navás, L.** 1918. Excursiones entomológicas por el Norte de la provincia de Lérida (6–24 de Julio de 1917). *Butlletí de la Institució catalana d'Historia Natural*, (1918): 36–49.
- Peissner, T., Kappus, B. & Malzacher, P.** 1996. Bewertung der Eintagsfliegenfauna der Baden-Württembergischen Donau und ausgewählter Nebengewässer. *Lauterbornia*, **27**: 81–91.
- Puthz, V.** 1978. Ephemeroptera. Pp. 256–263 in Illies J. (Ed.), *Limnofauna Europaea*, vol. 1. 2nd Edition, Gustav Fischer Verlag, Stuttgart.
- Russev, B.K.** 1993. Review of literature and established mayfly species (Ephemeroptera, Insecta) from Bulgaria. *Lauterbornia*, **14**: 71–77.
- Schmidt-Kloiber, A.** 1997. Ephemeroptera of an artificial Danube backwater irrigation system in Austria. Pp. 152–156 in Landolt, P. & Sartori, M. *Ephemeroptera & Plecoptera Biology-Ecology-Systematics*, Mauron-Tinguely & Lachat SA, Fribourg.
- Soldán, T.** 1978. Mayflies (Ephemeroptera) new to the fauna of Czechoslovakia found in 1972–1977. *Acta Entomologica Bohemoslovaca*, **75**: 319–329.
- Sowa, R.** 1990. Ephemeroptera – Jetki. Pp. 33–38 in Razowski, J. (Ed.), *A checklist of the animals of Poland*. PWN, Warszawa, Wroklaw-Krakow.
- Sowa, R.** 1992. Jetki Ephemeroptera. Pp. 97–101 in Glowacinski, Z. (Ed.), *A checklist of rare and endangered animals in Poland*. Nature Protection research Centre, PAS, Krakow.
- Thomas, A. & Masselot, G.** 1996. Les Ephémères de France: inventaire des espèces signalées et des espèces potentielles (Ephemeroptera). *Bulletin de la Société entomologique de France*, **101**: 467–488.
- Thomas, A.G.B., Prevot, R. & Vinçon, G.** 1986. Deux Ephéméroptères nouveaux pour la faune de France: *Baetis pentapleobodes* Ujhelyi, 1966 (Baetidae) et *Caenis beskidensis* Sowa, 1973 (Caenidae). *Bulletin de la Société d'Histoire Naturelle de Toulouse*, **122**: 179.
- Ujhelyi, S.** 1966. The mayflies of Hungary, with the description of a new species, *Baetis pentapleobodes* sp. n. (Ephemeroptera). *Acta zoologica Academiae Scientiarum Hungariae*, **12**: 203–210.

Weichselbaumer, P. & Sowa, R. 1990. Beitrag zur Kenntnis der Eintagsfliegenfauna Österreichs (Insecta: Ephemeroptera). *Berichte der naturwissenschaftlich-medizinischen Vereins in Innsbruck*, **77**: 113–122.

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Case 3326***Lachniella tujafilina* Del Guercio, 1909 (currently *Cinara* (*Cupressobium*) *tujafilina*; Insecta, Hemiptera, APHIDIDAE): proposed precedence over *Lachnus greeni* Schouteden, 1905 (currently *Cinara* (*Cupressobium*) *greeni*)**

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Abstract. The purpose of this application, under Article 23.9.3. of the Code, is to conserve the usage of the specific name *Cinara* (*Cupressobium*) *tujafilina* (Del Guercio, 1909) for a widespread and economically important species of aphid, by giving it precedence over the senior specific name *Cinara* (*Cupressobium*) *greeni* (Schouteden, 1905).

Keywords. Nomenclature; taxonomy; Hemiptera; APHIDIDAE; LACHNINAE; *Cinara*; *Cinara* (*Cupressobium*) *tujafilina*; *Cinara* (*Cupressobium*) *greeni*; aphids.

1. The species *Lachnus greeni* was established by Schouteden (1905, p. 184). The specific name *greeni* was subsequently combined with the generic names *Cinaropsis* Börner, 1939 and *Cinara* Curtis, 1835, respectively by Börner & Heinze (1957, p. 55) and Eastop & Hille Ris Lambers (1976, p. 150). It was placed near *Cinara* (*Cupressobium*) *tujafilina* (Del Guercio, 1909) by Remaudière & Remaudière (1997, pp. 193, 277, 300) as a nomen dubium.

2. The species *Lachniella tujafilina* was established by Del Guercio (1909, p. 288) and it is currently (Remaudière & Remaudière, 1997, p. 199) placed in the genus *Cinara* Curtis, 1835 and subgenus *Cupressobium* Börner, 1940.

3. Pérez Hidalgo & Nieto Nafria (2004, p. 102) have demonstrated that *Cinara greeni* and *Cinara tujafilina* are subjective synonyms. Following the Principle of Priority *greeni* (1905) has priority over *tujafilina* (1909).

4. The automatic reversal of precedence under Article 23.9.1 is not possible since *Lachnus greeni* Schouteden was not established by Schouteden until after 1899. Following Article 23.9.3, this case requires referral to the Commission for a ruling under the plenary power (Article 81). While the case is under consideration use of the junior name is to be maintained (Article 82). Any return to the use of the specific name *Cinara greeni* instead of *Cinara tujafilina* would greatly affect stability and universality of nomenclature, causing unnecessary confusion. *Cinara tujafilina* is used with

regularity, while *Cinara greeni* was mentioned only in a few catalogues and papers listed in para. 1 above. A list of 33 references by 54 authors using *Cinara tujafilina* and covering the years 1948–2003 is held by the Commission Secretariat (e.g. Bodenheimer & Swirski, 1957; Patti, 1977; Watson et al., 1999; Gil et al., 2002; Wilson et al., 2003). Confusion resulting from use of the older name would affect current usage of *Cinara* (*Cupressobium*) *tujafilina* as a well known pest in forestry and gardening, affecting several species of *Callitris*, *Chamaecyparis*, *Cupressus*, *Juniperus*, *Thuja* and *Widdringtonia* (Cupressaceae) used as ornamental plants (Blackman & Eastop, 1994).

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *tujafilina* Del Guercio, 1909, as published in the binomen *Lachniella tujafilina*, precedence over the name *greeni* Schouteden, 1905, as published in the binomen *Lachmus greeni*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *tujafilina* Del Guercio, 1909, as published in the binomen *Lachniella tujafilina*, with the endorsement that it is to be given precedence over the name *greeni* Schouteden, 1905, as published in the binomen *Lachmus greeni*, whenever the two are considered to be synonyms;
 - (b) *greeni* Schouteden, 1905, as published in the binomen *Lachmus greeni*, with the endorsement that it is to not be given priority over the name *tujafilina* Del Guercio, 1909, as published in the binomen *Lachniella tujafilina*, whenever the two are considered to be synonyms.

References

- Blackman, R. & Eastop, V.F.** 1994. *Aphids on the world's trees. An Identification and information guide*. 8, 987 pp., 16 pls. CAB International, Wallingford.
- Bodenheimer, F.S. & Swirski, E.** 1957. *The Aphidoidea of the Middle East*. 378 pp. Weizmann Science Press of Israel, Jerusalem.
- Börner, C. & Heinze, K.** 1957. Aphidina-Aphidoidea. Blattläuse, plantlice (Aphids), pucerons (aphides) in Sorauer, P. (Ed.), *Handbuch der Pflanzenkrankheiten*, 5, 4: 1–402.
- Del Guercio, G.** 1909. Contribuzione alla conoscenza dei Lacnidi Italiani. Morfologia, sistematica, biologia generale e loro importanza economica. *Redia*, [1908], 5: 173–359.
- Eastop, V.F. & Hille Ris Lambers, D.** 1976. *Survey of the world's aphids*. 573 pp. Junk, The Hague.
- Gil, R., Sabater-Muñoz, B., Latorre, A., Silva, F.J. & Moya, A.** 2002. Extreme genome reduction in *Buchnera* spp.: Toward the minimal genome needed for symbiotic life. *Proceedings of the National Academy of Sciences of the United States of America*, 99(7): 4454–4458.
- Patti, I.** 1977. La moria dei cipressi in relazione alle infestazioni dell'afide *Cinara cupressi* (Bckt.). *Tecnica Agricola*, 3: 5–15.
- Pérez Hidalgo, N. & Nieto Nafria, J.M.** 2004. Sobre la validez de *Cinara* (*Cupressobium*) *greeni* (Schouteden, 1905) (Hemiptera, Aphididae: Eulachnini). *Boletín de la Asociación española de Entomología*, 27(1–4): 99–103.
- Remaudière, G. & Remaudière, M.** 1997. *Catalogue des Aphididae du monde / Catalogue of the world's Aphididae*. Homoptera Aphidoidea. 478 pp. INRA Editions. Versailles.
- Schouteden, H.** 1905. Notes on Ceylonese aphides. *Spolia Zeylandica*, 2: 181–188.
- Watson, G.W., Voegtlin, D.J., Murphy, S.T. & Footitt, R.G.** 1999. Biogeography of the *Cinara cupressi* complex (Hemiptera: Aphididae) on Cupressaceae, with description of a pest species introduced into Africa. *Bulletin of Entomological Research*, 89: 271–283.

Wilson, A.C.C., Sunnucks, P. & Hales, D. 2003. Heritable genetic variation and potential for adaptive evolution in asexual aphids (Aphidoidea). *Biological Journal of the Linnean Society*, **79**: 115–135.

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Case 3298

***Curculio assimilis* Paykull, 1792 (currently *Ceutorhynchus assimilis*; Insecta, Coleoptera): proposed conservation of the specific name**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name of *Ceutorhynchus assimilis* (Paykull, 1792) for the species commonly known as the 'cabbage seed weevil' (family CURCULIONIDAE), a major pest of oilseed rape. The name *Ceutorhynchus assimilis* is threatened by three senior primary homonyms *Curculio assimilis* Fabricius, 1775, *C. assimilis* Harrer, 1784 and *C. assimilis* Herbst, 1784.

Keywords. Nomenclature; taxonomy; Coleoptera; CURCULIONIDAE; *Ceutorhynchus assimilis*; cabbage seed weevil; oilseed rape pests.

1. The name *Curculio assimilis* was established by Paykull, 1792 (p. 69) for a species of seed weevil and has been in continuous use for a major pest of oilseed rape (e.g. Reitter, 1916; Balachowsky, 1963; Edwards & Heath, 1964; Schmidt, 1970; Hill, 1987, 1994; Seymour, 1989; Alford, 1999, 2003; Lane & Gladders, 2000; Alford, Nilsson & Ulber, 2003; Williams, 2003). The name is preoccupied by three senior primary homonyms: *C. assimilis* Fabricius, 1775 (p. 134) (currently *Lasiorrhynchus barbicornis* (Fabricius, 1775)), *C. assimilis* Harrer, 1784 (p. 184) (currently *Cionus thapsi* (Fabricius, 1792)) and *C. assimilis* Herbst, 1784 (p. 77) (currently *Magdalis violacea* Linnaeus, 1758), all in the family CURCULIONIDAE (see WTaxa Electronic Catalogue of Weevil Names (Curculionoidea)). None of the senior homonyms has been used in the genus *Ceutorhynchus* since 1899.

2. The name *Curculio obstrictus* Marsham, 1802 (p. 255) was used only once since 1899 (as *Ceutorhynchus obstrictus*) by Colonnelli (1993), for the cabbage seed weevil, a species for which the name *C. assimilis* is in prevailing use (see Alford, 2003). Colonnelli (1993) applied the name *C. assimilis* to a species commonly known as the turnip gall weevil and for which the name *Curculio pleurostigma* Marsham, 1802 (p. 282) is in prevailing use (see Balachowsky, 1963; Alford, 2003). Usage of the name *C. assimilis* by Colonnelli (1993) was also invalid since it is a preoccupied name. Therefore, in the interest of stability and particularly because of the economic importance of the taxa involved, it is proposed that the Commission use its plenary power to rule that the specific name of *Curculio assimilis* Paykull, 1792 (currently *Ceutorhynchus assimilis*) is not invalid by reason of being a junior primary homonym.

3. The International Commission on Zoological Nomenclature is accordingly asked: (1) to use its plenary power to rule that the name *assimilis* Paykull, 1792, as published in the binomen *Curculio assimilis*, is not invalid by reason of being

a junior primary homonym of *assimilis* Fabricius, 1775, *assimilis* Harrer, 1784, and *assimilis* Herbst in Fuessli, 1784, as published in the binomen *Curculio assimilis*;

- (2) to place the name *assimilis* Paykull, 1792, as published in the binomen *Curculio assimilis*, on the Official List of Specific Names in Zoology.

References

- Alford, D.V. 1999. *A textbook of agricultural entomology*. 314 pp. Blackwell, Oxford.
- Alford, D.V. (Ed.). 2003. *Biocontrol of oilseed rape pests*. 355 pp. Blackwell, Oxford.
- Alford, D.V., Nilsson, C. & Ulber, B. 2003. Insect pests of oilseed rape. Pp. 9–41 in Alford, D.V. (Ed.), *Biocontrol of oilseed rape pests*. 355 pp. Blackwell, Oxford.
- Balachowsky, A.S. (Ed.). 1963. *Entomologie appliquée à l'agriculture*. Tome I, Coléoptères, vol. 2, pp. 567–1391. Masson, Paris.
- Colonnelli, E. 1993. The Ceutorhynchinae types of I.C. Fabricius and G. von Paykull (Coleoptera: Curculionidae). *Koleopterologische Rundschau*, **63**: 299–310.
- Edwards, C.A. & Heath, G.W. 1964. *The principles of agricultural entomology*. 418 pp. Chapman & Hall, London.
- Fabricius, J.C. 1775. *Systema Entomologiae, sistens Insectorum classes, ordines, genera, species, &c.* xxxii, 832 pp. Flensburgi & Lipsiae.
- Harrer, G.A. 1784. *Beschreibung derjenigen Insecten, welche Herr D. Jacob Christoph Schäffer in 280 ausgewählten Kupfertafeln unter dem Titel Icones Insectorum circa Ratisbonam Indigenorum . . . Theil Hartschaalige Insecten*. 32, 328 pp. Regensburg.
- Herbst, J.F.W. 1784. Pp. 73–128 in Fuessli, J.C. *Archiv der Insectengeschichte*, vol. 5. Winterthur, Zürich.
- Hill, D.S. 1987. *Agricultural insect pests of temperate regions and their control*. 659 pp. Cambridge University Press, Cambridge.
- Hill, D.S. 1994. *Agricultural entomology*. 635 pp. Timber Press, Oregon.
- Lane, A. & Gladders, P. 2000. Pests and diseases of oilseeds, brassica seed crops and field beans. Pp. 52–83 in Alford, D.V. (Ed.). *Pests and disease management handbook*. 615 pp. Blackwell, Oxford.
- Marshall, T. 1802. *Coleoptera Britannica, sistens Insecta Coleoptera Britannia indigena, &c.*, vol. 1. xxxi, 547 pp. Londini.
- Paykull, G. 1792. *Monographia Curculionum Sveciae*. vi, 151 pp. Upsaliae.
- Reitter, E. 1916. *Fauna Germanica. Die Käfer des Deutschen Reiches*. V Band. 168 pp. Lutz' Verlag, Stuttgart.
- Schmidt, G. 1970. Die deutschen Namen wichtiger Arthropoden. *Mitteilungen aus der Biologischen Bundesanstalt für Land-und forstwirtschaft Berlin-Dahlem*, **137**: 1–222.
- Seymour, P.R. 1989. *Invertebrates of economic importance in Britain. Common and Scientific names*. 147 pp. H.M.S.O., London.
- Williams, I.H. 2003. Parasitoids of cabbage seed weevil. Pp. 97–112 in Alford, D.V. (Ed.). *Biocontrol of oilseed rape pests*. 355 pp. Blackwell, Oxford.
- WTaxa Electronic Catalogue of Weevil Names. 30 August 2005. Database version 9. <http://wtaxa.csic.es/>. WTaxa: World Electronic Catalogue of Curculionoidea

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3299***Staphylinus punctulatus* Paykull, 1789 (currently *Gyrohypnus punctulatus*; Insecta, Coleoptera, STAPHYLINIDAE): proposed conservation of the specific name**

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Abstract. The purpose of this application, under Article 23.9.5 of the Code, is to conserve the specific name of *Staphylinus punctulatus* Paykull, 1789. The name is a junior primary homonym of *Staphylinus punctulatus* Goeze, 1777 (currently *Othius punctulatus*), but the specific names have not been considered as congeneric since 1830.

Keywords. Nomenclature; taxonomy; STAPHYLINIDAE; *Gyrohypnus punctulatus*; rove beetles; Palaearctic.

1. The name *Staphylinus punctulatus* was established by Goeze, 1777 (p. 730) for a common species of western palaeartic rove beetle. It was last used in its original combination by Turton (1802, p. 518, misspelled as *pustulatus*) and was removed from the nominal genus *Staphylinus* by Fauvel (1886, p. 47).

2. Paykull, 1789 (p. 30) described another common species of rove beetle (from Sweden) under the name *Staphylinus punctulatus*. The species was placed in the genus *Gyrohypnus* Kirby, 1819 by Curtis (1829, p. 27) and last used in the genus *Staphylinus* by Sahlberg (1830, p. 333). *Gyrohypnus punctulatus* (Paykull) has been cited as a valid name in numerous publications. Herman (2001) listed 26 publications citing *G. punctulatus* (Paykull) as a valid name since 1950, e.g. Bordoni (1982, p. 214), Coiffait (1956, p. 54; 1972, p. 182), Lohse (1958, p. 120; 1964, p. 161), Palm (1963, p. 47), and Tóth (1989, p. 17). Muona (1979, p. 16) replaced the name with *G. ater* (Stephens, 1833, p. 255) and Lohse (1988) replaced it with the junior synonym *G. liebei* (Scheerpeltz, 1926, p. 86). According to Herman (2001), since 1988 the species was listed under both *G. punctulatus* (Paykull) (six times) and *G. liebei* (Scheerpeltz) (four times). Examination of the holotype of *G. liebei* (Scheerpeltz) revealed that the name is a junior synonym of *G. angustatus* Stephens, 1833 (p. 263) and not of *G. punctulatus* (Paykull) (Assing, 2003).

3. Herman (2001) listed no synonym of *Gyrohypnus punctulatus* (Paykull) or *G. liebei* (Scheerpeltz) that would be eligible as a replacement name for *G. punctulatus* (Paykull). The list of synonyms of *G. fracticornis* (Müller, 1776, p. 99), with which *G. punctulatus* (Paykull) had been confused until both species were separated by Lohse (1958), includes three names whose identity had not been reexamined since 1958. However, one of them, *Othius ater* Stephens, 1833 (p. 255), refers to *O. laeviusculus* Stephens, 1833 (p. 255) (Assing, 2003). The two remaining names, *O. obscurus* Stephens, 1833 (p. 256) and *Xantholinus melanarius* Fauvel, 1872 (p. 304), a

replacement name for *X. morio* Reitter, 1872 (p. 167), have not been used as valid names since 1858 and 1873 respectively (Herman, 2001) and their types are apparently lost (Assing, 2003).

4. The name *Staphylinus punctulatus* Paykull, 1789 (currently *Gyrohypnus punctulatus*) is in current use and it has not been considered to be congeneric with its senior primary homonym *Staphylinus punctulatus* Goeze, 1777 (currently *Othius punctulatus*) since 1899. Under Article 23.9.5, a junior primary homonym must not be automatically replaced and the case should be referred to the Commission for a ruling under the plenary power. Both nominal species have been treated in a great number of faunistic and ecological papers and conservation of the long established name *Gyrohypnus punctulatus* (Paykull) is proposed in the interest of stability.

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that the specific name *punctulatus* Paykull, 1789, as published in the binomen *Staphylinus punctulatus*, is not invalid by reason of being a junior primary homonym of *punctulatus* Goeze, 1777, as published in the binomen *Staphylinus punctulatus*;
- (2) to place on the Official List of Specific Names in Zoology the name *punctulatus* Paykull, 1789, as published in the binomen *Staphylinus punctulatus* (not invalid by the ruling in (1) above).

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References

- Assing, V. 2003. On the taxonomy of *Gyrohypnus* Leach, new synonymies, new species, and a key to the Western Palaearctic and Middle Asian representatives of the genus (Insecta, Coleoptera, Staphylinidae). *Entomologische Blätter*, **99**: 55–81.
- Bordoni, A. 1982. *Coleoptera. Staphylinidae. Generalità. Xantholininae* in Fauna d'Italia, vol. 19. xii, 434 pp. Calderini, Bologna.
- Coiffait, H. 1956. Les Xantholininae de France et des régions voisines (Col. Staphylinidae). *Revue Française d'Entomologie*, **23**(1): 31–75.
- Coiffait, H. 1972. Coléoptères Staphylinidae de la région Paléarctique occidentale. I. Généralités. Sous-familles: Xantholininae et Leptotyphlinae. *Nouvelle Revue d'Entomologie. Supplément*, **2**(2): 1–651.
- Curtis, J. 1829. *A guide to an arrangement of British insects; being a catalogue of all the named species hitherto discovered in Great Britain and Ireland*. 256 columns. Curtis, London.
- Fauvel, A. 1872. In Marsuel, S. Répertoire des coléoptères décrits isolément depuis 1864. L'Abeille. *Memoires d'Entomologie*, **8**: 185–412.
- Fauvel, A. 1886. Les Staphylinides du Nord de l'Afrique. *Revue d'Entomologie*, **5**: 9–100.
- Goeze, J.A.E. 1777. *Entomologische Beyträge zu des Ritter Linné zwölften Ausgabe des Natursystems*. Thl. 1. xvi, 736 pp. Weidmanns Erben & Reich, Leipzig.
- Herman, L.H. 2001. Catalog of the Staphylinidae (Insecta, Coleoptera). 1758 to the end of the second millennium. *Bulletin of the American Museum of Natural History*, **265**: 1–4218.

- Lohse, G.A.** 1958. Neuheiten der deutschen Käferfauna V. *Entomologische Blätter*, **54**: 118–126.
- Lohse, G.A.** 1964. Staphylinidae I (Micropeplinae bis Tachyporinae). In Freude, H., Harde, K. & Lohse G., *Die Käfer Mitteleuropas*, vol. 4. 264 pp. Goecke & Kevers, Krefeld.
- Lohse, G.A.** 1988. Staphylinidenstudien II. *Entomologische Blätter*, **84**: 41–50.
- Müller, O.F.** 1776. *Zoologiae Danicae prodromus, seu animalium Daniae et Norvegiae indigenarum characteres, nomina, et synonyma imprimis popularium*. xxxii, 282 pp. Hallager, Havniae.
- Muona, J.** 1979. Staphylinidae. Pp. 14–28 in Silfverberg, H., *Enumeratio Coleopterorum Fennoscandiae et Daniae*. v, 94 pp. Helsingfors Entomologiska Bytesförening, Helsingfors.
- Palm, T.** 1963. *Svensk Insektfauna*. 9. Skalbaggar. *Coleoptera, Kortvingar: Fam. Staphylinidae. Unterfam. Paederinae, Staphylininae*. Häfte 3. 168 pp. Entomologiska Föreningen i Stockholm. Almqvist & Wiksells, Uppsala.
- Paykull, G. von.** 1789. *Monographia Staphylinorum Sueciae*. x, 81 pp. Johann Edman, Upsaliae.
- Reitter, E.** 1872. Neue Käferarten von Oran, gesammelt von Hans Leder. *Berliner Entomologische Zeitschrift*, **16**: 167–186.
- Sahlberg, C.R.** 1830. (Ed.). *Insecta Fennica, dissertationibus academicis*. A. 1817–1834. Pars I, pp. 281–360. Frenckelliana, Helsingforsiae.
- Scheerpeltz, O.** 1926. Zwei neue Arten aus dem Subg. *Gyrohypnus* Mannerh. der Gattung *Xantholinus* Serv. (Col. Staphyl.). Mit einer Übersicht der mir bekannten paläarktischen Arten. *Coleopterologisches Centralblatt*, **1**: 81–93.
- Stephens, J.F.** 1833. *Illustrations of British entomology; or, a synopsis of indigenous insects; containing their generic and specific distinctions; with an account of their metamorphoses, times of appearance, localities, food, and economy, as far as practicable*. Mandibulata, vol. 5, pp. 241–304. Baldwin & Cradock, London.
- Tóth, L.** 1989. *Magyarország Állatvilága. VII. kötet, Coleoptera II, 10. füzet. Holyvák VI. - Staphylinidae VI. 12 ábrával*. Fauna Hungariae, no. 163. 41 pp. Akadémiai Kiadó, Budapest.
- Turton, W.** 1802. *A general system of nature, through the three grand kingdoms of Animals, Vegetables, and Minerals; systematically divided into their several classes, orders, genera, species, and varieties, with their habitations, manners, economy, structure, and peculiarities. Translated from Gmelin's last edition of the celebrated Systema Naturae, by Sir Charles Linné, amended and enlarged by the improvements and discoveries of later naturalists and societies*. 7 vols. 717 pp. Lackington, Allen & Co., London.

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Case 3302***Buprestis sexsignata* Say, 1839 (Insecta, Coleoptera): proposed precedence of the specific name over those of *Chrysobothris ignipes* Gory & Laporte, 1838 and *Chrysobothris germari* Gory & Laporte, 1838**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Buprestis sexsignata* Say, 1839 for a species of jewel beetle (family BUPRESTIDAE) by giving it precedence over its unused senior synonyms *Chrysobothris ignipes* Gory & Laporte, 1838 and *C. germari* Gory & Laporte, 1838.

Keywords. Nomenclature; taxonomy; Coleoptera; BUPRESTIDAE; *Buprestis sexsignata*; *Chrysobothris ignipes*; *Chrysobothris germari*; buprestids; jewel beetles.

1. Say (1823, p. 161) established the name *Buprestis sexguttata* (originally spelled *6-guttata*) for a species of jewel beetle (family BUPRESTIDAE) from Missouri and the Atlantic States, North America. Subsequently, Say (1839, p. 158) proposed the replacement name *Buprestis sexsignata*, noting that the name *B. sexguttata* was preoccupied by an 'American' species which he attributed to Herbst (now attributed to Brahm (1790, p. 141)), itself a junior subjective synonym of *B. ater* Linnaeus, 1767 (p. 663) (currently *Agrilus ater*) from Europe and a junior primary homonym of *B. sexguttatus* Thunberg, 1789 (p. 97) (currently *Agrilus sexguttatus*) from Africa. Although the paper containing Say's replacement name was read in 1836, it was not actually published until 1839. All subsequent authors have referred to this species as *Chrysobothris sexsignata* (Say, 1839). The species is common throughout eastern North America, and notes about its distribution and biology have been made by many authors including Knull (1920, p. 6; 1922, p. 82; 1930, p. 83; 1934, p. 208); Fisher (1942, p. 224); Hespenheide (1973, p. 185); Nelson & MacRae (1990, p. 352); MacRae (1991, p. 113) and MacRae & Nelson (2003, p. 65).

2. Gory & Laporte (1838, p. 50) established the nominal species *Chrysobothris ignipes* from 'Boston, Massachusetts' and *Chrysobothris germari* from 'North America'. LeConte (1873, p. 332) considered *C. ignipes* to be a synonym of *C. sexsignata* and *C. germari* to be possibly a variety of *C. solieri* Gory & Laporte, 1838 (a Palearctic species that LeConte mistakenly considered to be from Mexico). Kerremans (1892, p. 214) followed LeConte's synonymy for *C. ignipes* and also placed *C. germari* in synonymy with *C. sexsignata*. All authors subsequent to Kerremans (1892) have followed this synonymy including Chamberlin (1926, p. 171), Obenberger (1934, p. 651) and Fisher (1942, p. 224).

3. Since Say's replacement name was not published until 1839, it is a junior subjective synonym of both *C. ignipes* and *C. germari*. However, neither of these latter names has been used as valid after 1899 (*C. ignipes* since Gory & Laporte (1838) and *C. germari* since LeConte (1873)), qualifying them as nomina oblita under Article 23.9.1.1 of the Code. The name *C. sexsignata* (Say), on the other hand, has been fairly widely used for more than 150 years; however, its usage does not meet the requirements of Article 23.9.1.2 for declaration as a nomen protectum. This precludes an automatic reversal of precedence under the provisions of Article 23.9.2. Therefore this case is submitted to the Commission under Article 23.9.3.

4. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the specific name *sexsignata* Say, 1839, as published in the binomen *Buprestis sexsignata*, precedence over the names *ignipes* Gory & Laporte, 1838, as published in the binomen *Chrysobothris ignipes*, and *germari* Gory & Laporte, 1838, as published in the binomen *Chrysobothris germari*, whenever *sexsignata* Say, 1839 and *ignipes* Gory & Laporte, 1838 and/or *germari* Gory & Laporte, 1838, are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *sexsignata* Say, 1839, as published in the binomen *Buprestis sexsignata*, with the endorsement that it is to be given precedence over the names *ignipes* Gory & Laporte, 1838, as published in the binomen *Chrysobothris ignipes*, and *germari* Gory & Laporte, 1838, as published in the binomen *Chrysobothris germari*, whenever *sexsignata* Say, 1839 and *ignipes* Gory & Laporte, 1838, and / or *germari* Gory & Laporte, 1838 are considered to be synonyms;
 - (b) *ignipes* Gory & Laporte, 1838, as published in the binomen *Chrysobothris ignipes*, with the endorsement that it is not to be given priority over the name *sexsignata* Say, 1839, as published in the binomen *Buprestis sexsignata*, whenever the two are considered to be synonyms;
 - (c) *germari* Gory & Laporte, 1838, as published in the binomen *Chrysobothris germari*, with the endorsement that it is not to be given priority over the name *sexsignata* Say, 1839, as published in the binomen *Buprestis sexsignata*, whenever the two are considered to be synonyms.

References

- Brahm, N.J.** 1790. *Insectenkalender für Sammler und Oekonomen*. Universitätsbuchhandlung, Teil 1, 248 pp. Mainz.
- Chamberlin, W.J.** 1926. *Catalogue of the Buprestidae of North America north of Mexico*. 289 pp. W.J. Chamberlin, Corvallis, Oregon.
- Fisher, W.S.** 1942. A revision of the North American species of buprestid beetles belonging to the tribe Chrysobothrini. *United States Department of Agriculture, Miscellaneous Publications*, No. 470: 1–274.
- Gory, H.L. & Laporte, F.L.N. de C.** 1838. *Histoire naturelle et iconographie des insectes Coléoptères. Monographie des buprestides*, vol. 2 (genera pagéd separately). Cumerill, Paris.
- Hespenheide, H.A.** 1973. Notes on the ecology, distribution, and taxonomy of certain Buprestidae. *The Coleopterists' Bulletin*, 27(4): 183–186.

- Kerremans, C.** 1892. Catalogue synonymique des buprestides decrits de 1758 à 1890. *Memoires de la Société Entomologique de Belgique*, **1**: 1–304.
- Knull, J.N.** 1920. Notes on Buprestidae with descriptions of new species (Coleop.). *Entomological News*, **31**: 4–12.
- Knull, J.N.** 1922. Annotated list of the Buprestidae of Pennsylvania (Coleoptera). *The Canadian Entomologist*, **54**: 79–86.
- Knull, J.N.** 1930. Notes on Coleoptera, No. 2. *Entomological News*, **41**: 82–86.
- Knull, J.N.** 1934. Notes on Coleoptera, No. 4. *Entomological News*, **45**: 207–212.
- LeConte, J.L.** 1873. Synonymical remarks upon North American Coleoptera. *Proceedings of the Academy of Natural Sciences of Philadelphia*, **25**: 321–337.
- Linnaeus, C.** 1767. *Systema Naturae*. Ed. 12, vol. 1, part 2. Pp. 533–1327. Salvii, Holmiae.
- MacRae, T.C.** 1991. The Buprestidae (Coleoptera) of Missouri. *Insecta Mundi*, **5**(2): 101–126.
- MacRae, T.C. & Nelson, G.H.** 2003. Distributional and biological notes on Buprestidae (Coleoptera) in North and Central America and the West Indies, with validation of one species. *The Coleopterists' Bulletin*, **57**(1): 57–70.
- Nelson, G.H. & MacRae, T.C.** 1990. Additional notes on the biology and distribution of Buprestidae (Coleoptera) in North America, part III. *The Coleopterists' Bulletin*, **44**(3): 349–354.
- Obenberger, J.** 1934. Buprestidae 4, in: Junk, W. & Schenkling, S. (Eds.), *Coleopterorum Catalogus*, **143**: 782–934.
- Say, T.** 1823. Descriptions of coleopterous insects collected in the late expedition to the Rocky Mountains performed by order of Mr. Calhoun, Secretary of War, under command of Major Long. *Journal of the Academy of Natural Sciences of Philadelphia*, **3**(1): 139–216.
- Say, T.** 1839. Description of new North American insects, and observations on some already described. *Transactions of the American Philosophical Society*, (2) **6**: 155–190.
- Thunberg, C.P.** 1789. *Dissertatio Entomologica Novas Insectorum species sistens*. No. 5, pp. 85–106. Upsaliae.

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Case 3303***Hyloxalus panamensis* Dunn, 1933: proposed emendation of spelling from *Hyloxalus panamansis* (currently *Colostethus panamansis*; Amphibia, Anura)**

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Abstract. The purpose of this application, under Article 81 of the Code, is to conserve the subsequent spelling of the specific name *Hyloxalus panamensis* as a justified emendation of *Hyloxalus panamansis* Dunn, 1933 (currently *Colostethus panamansis*) for a Central American dendrobatid frog species which is the subject of important behavioural, environmental and biochemistry studies. While the original spelling *panamansis* is presently valid, both spellings have been in use since 1940. Although neither spelling has been established in prevailing usage, the emended spelling is becoming more widely used and is expected to prevail in the near future. It is proposed that the spelling *panamensis* be recognised as a justified emendation.

Keywords. Nomenclature; taxonomy; Amphibia; Anura; DENDROBATIDAE; *Colostethus*; *Hyloxalus panamansis*; *Hyloxalus panamensis*; Central America; Panama; frog.

1. Dunn (1933) named the Panamanian species *Hyloxalus panamansis*. Although an etymology is not provided in the original publication, it is clear that the specific name is in reference to the Panamanian origin of the taxon and is an incorrect latinization. In his next paper dealing with this taxon, Dunn (1940) referred to it with the correct latinization, as *Hyloxalus panamensis*, although he did not propose this as an explicit emendment of the previous spelling. In all his unpublished notes, Dunn used only the emended spelling, and there is no direct evidence that he was ever aware of his lapsus.

2. The taxon was infrequently treated subsequently, and neither spelling has clearly come into prevailing usage. Duellman (1966) applied the original spelling as *Prostherapis panamansis*. Heatwole & Sexton (1966) followed the emended spelling when they treated the taxon as the subspecies *Phyllobates inguinalis panamensis*. Savage (1968) followed the emended spelling in placing *Hyloxalus panamensis* in the synonymy of *Colostethus inguinalis* (Cope, 1868). Silverstone (1976) employed the original spelling, but also considered the taxon to be a synonym of *Colostethus inguinalis*, and Ibáñez et al. (1999) listed *Prostherapis panamansis* and *Hyloxalus panamansis* as 'familiar synonyms' of *Colostethus inguinalis*. Frost's (1999–2002) widely cited electronic catalogue listed both spellings and explicitly considered *panamensis* to be a justified emendation. The taxon remained in synonymy with *Colostethus inguinalis* (Cope, 1868) from 1968 until 2004, when the synonymy was refuted by Grant (2004, p. 6).

3. There is no evidence in the original publication itself to allow *panamansis* to be treated as an inadvertent error. The specific name appears twice in the original publication (pp. 69, 70), and in both instances it is spelled *panamansis*. Therefore, the conditions of Article 32.5 (Incorrect original spellings) of the Code are not met, since incorrect latinization alone is not to be considered an inadvertent error. Although Dunn's (1940) subsequent publication may be interpreted as evidence of an intended correction by the original author, that publication appeared seven years later and therefore does not satisfy Article 32.5.1.1 (Simultaneous correction).

4. The retention of Dunn's (1933) original incorrect latinization as the correct spelling will undoubtedly cause confusion, as it has in the past (see above). Because the species was in synonymy for most of the last 35 years, during which time the vast majority of research on dendrobatid frogs has occurred, neither spelling has been established in prevailing usage. However, in resurrecting the species Grant (2004) suggested using the emended spelling. Hence the emended spelling of the name is likely to begin to appear in the modern literature. This Central American species was the subject of extremely influential papers in behavioural ecology, in all of which it was erroneously synonymized with *Colostethus inguinalis* (Cope, 1868). In addition, this species of frog is the only dendrobatid known to possess tetrodotoxin (all other alkaloids of dendrobatids are lipophilic), and the species is cited in the natural products/biochemistry literature. It is very likely that in the near future workers in

these fields will refer to this species of frog using the combination *Colostethus panamensis*.

5. In order to avoid confusion and promote stability, as outlined in Article 81, we ask the Commission to exercise its plenary power to validate *Hyloxalus panamensis* as a justified emendation of the original spelling *Hyloxalus panamansis* Dunn, 1933.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that *panamensis* is a justified emendation of the original spelling *panamansis* Dunn, 1933, as published in the binomen *Hyloxalus panamansis*;
- (2) to place the name *panamensis* Dunn, 1933, in the binomen *Hyloxalus panamensis*, on the Official List of Specific Names in Zoology;
- (3) to place the name *panamansis* Dunn, 1933, as published in the binomen *Hyloxalus panamansis*, on the Official Index of Rejected and Invalid Specific Names in Zoology.

References

- Duellman, W.E.** 1966. Aggressive behavior in dendrobatid frogs. *Herpetologica*, **22**: 217–221.
- Dunn, E.R.** 1933. Amphibians and reptiles from El Valle de Anton, Panama. *Occasional Papers of the Boston Society of Natural History*, **8**: 65–79.
- Dunn, E.R.** 1940. New and noteworthy herpetological material from Panama. *Proceedings of the Academy of Natural Sciences of Philadelphia*, **92**: 105–122.
- Frost, D.R.** 1999–2002. Amphibian Species of the World: An Online Reference. V2.21 (15 July 2002). Electronic database available at <http://research.amnh.org/herpetology/amphibia/index.html>
- Grant, T.** 2004. On the identities of *Colostethus inguinalis* (Cope, 1868) and *C. panamensis* (Dunn, 1933), with comments on *C. latinasus* (Cope, 1863) (Anura: Dendrobatidae). *American Museum Novitates*, **3444**: 1–24.
- Heatwole, H. & Sexton, O.J.** 1966. Herpetofaunal comparisons between two climatic zones in Panama. *American Midland Naturalist*, **75**: 45–60.
- Ibáñez D., R., Rand, A.S. & Jaramillo, C.A.** 1999. *Los Anfibios del Monumento Natural Barro Colorado, Parque Nacional Soberanía y Areas Adyacentes / The Amphibians of Barro Colorado Nature Monument, Soberanía National Park and Adjacent Areas*. 187 pp. Editorial Mizrachi & Pujol, Panama.
- Savage, J.M.** 1968. The dendrobatid frogs of Central America. *Copeia*, **1968**: 745–776.
- Silverstone, P.A.** 1976. A revision of the poison-arrow frogs of the genus *Phyllobates* Bibron in Sagra (family Dendrobatidae). *Natural History Museum of Los Angeles County Science Bulletin*, **27**: 1–53.

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Case 3330***Nectarinia senegalensis cruentata* Rüppell, 1845 (Aves, Passeriformes):
proposed conservation of the subspecific name**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the subspecific name *Nectarinia senegalensis cruentata* Rüppell, 1845 for the Ethiopian, SE-Sudanese and Eritrean population of the scarlet-chested sunbird, originally proposed as *Nectarinia cruentata*. The senior objective synonym *Cinnyris proteus* Rüppell, 1840 has not been used since its first publication except in synonymy. It is proposed that the name *cruentata* Rüppell, 1845 be conserved by suppression of *proteus* Rüppell, 1840.

Keywords. Nomenclature; taxonomy; NECTARINIIDAE; *Nectarinia*; *Nectarinia senegalensis cruentata*; *Cinnyris proteus*; sunbirds; Ethiopia; Southeast Sudan; Eritrea.

1. Rüppell described the same species of sunbird twice, in 1840 and in 1845. Rüppell (1840, p. 91 and a footnote on p. 91) proposed by indication a new specific name *Cinnyris proteus* for a sunbird illustrated by Le Vaillant (1808, pp. 165–167, pl. 295, fig. 2) under the name ‘Le Sucrier Protée’ (Le Vaillant’s names of birds were not latinized binomens; the name on the plate reads ‘Protté’). In his paper Rüppell (1840, p. 91) gave a reference to Le Vaillant’s name ‘Le Sucrier Protée’, which he latinized as *Cinnyris proteus*, thereby providing a valid scientific name (Indications – Articles 12.2.1 and 12.2.7). In addition, in the first footnote on p. 91 he described his own specimens of *Cinnyris proteus* on the assumption that they belonged to the same taxon as the bird described by Le Vaillant. However, the bird described by Le Vaillant had previously been named by Linnaeus (1766, p. 186) as *Certhia senegalensis* and is now considered to be a different subspecies to the one described by Rüppell (1840, p. 91).

2. Later, Rüppell (1845, pp. 26–27, pl. 9) established the name *Nectarinia cruentata* based on the same material (this time with no reference to Le Vaillant’s specimens) indicating that his species is apparently different from *Nectarinia senegalensis* (Linnaeus, 1766) illustrated by Le Vaillant as ‘Le Sucrier Protée’.

3. Rüppell’s (1845) description of *Nectarinia cruentata* contains citations from his description of *Cinnyris proteus* published in 1840, positively suggesting that it is indeed the same taxon. Bonaparte (1850, p. 406) was the first to recognize this fact and synonymized *Cinnyris proteus* with *Nectarinia cruentata*, not, however, acknowledging priority.

4. *Nectarinia cruentata* Rüppell, 1845 is treated in modern taxonomy as a subspecies of *Nectarinia senegalensis* (Linnaeus, 1766), first published in this combination by Neumann (1906, pp. 252, 254).

5. To the author's knowledge nobody since its first publication has used the senior synonym *Cinnyris proteus* Rüppell, 1840, which precedes the name *Nectarinia cruentata* Rüppell, 1845, except in synonymy. Therefore the conditions of Article 23.9.1.1 (Reversal of Precedence) of the Code are met (see Rüppell, 1845, p. 26; Murs & Prévost, 1847, p. 87; Ferret & Galinier, 1850, p. 248; Bonaparte, 1850, p. 406; Brehm, 1863, p. 211; Heuglin, 1864, p. 262; Blanford, 1868, p. 284; Heuglin, 1869, p. 228; Finsch, 1870, p. 229; Blanford, 1870, p. 352; Salvadori, 1873, p. 450; Shelley, 1878, p. 259; Gadow, 1884, p. 93; Salvadori, 1884, p. 125; Hartert, 1891, p. 30; Shelley, 1900, p. 100; Reichenow, 1904–1905, p. 462; Neumann, 1906, p. 252; Hilgert, 1908, p. 146; Salvadori, 1916, p. 11; Moltoni, 1937, p. 250; Moltoni, 1939, p. 36; Steinbacher, 1949, p. 116; Cave & Macdonald, 1955, p. 353; Smith, 1957, p. 328; Toschi, 1959, p. 399; Mackworth-Præd & Grant, 1960, p. 795; Rand, 1967, p. 234; Wolters, 1979, p. 278; Nikolaus, 1987, p. 250; Lewis & Pomeroy, 1989, p. 495; Howard & Moore, 1991, p. 425; Clements, 2000, p. 547; Fry et al., 2000, p. 194; Cheke & Mann, 2001, p. 236; Dickinson, 2003, p. 707).

5. However, the conditions of Article 23.9.1.2 of the Code are not met. *Zoological Record* from 1955 to 2004 does not list any publication which cited the particular subspecies of the scarlet-chested sunbird. Only general and local check-lists of the Ethiopian/North Kenyan avifauna and the monograph of Cheke & Mann (2001) offer such detail. The limited use of the name *cruentata* in the preceding 50 years does not allow its automatic conservation under the provisions of the Code.

6. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to use its plenary power to suppress the name *proteus* Rüppell, 1840, as published in the binomen *Cinnyris proteus*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;

(2) to place the name *cruentata* Rüppell, 1845, as published in the binomen *Nectarinia cruentata*, on the Official List of Specific Names in Zoology;

(3) to place the name *proteus* Rüppell, 1840, as published in the binomen *Cinnyris proteus* and as suppressed in (1) above, on the Official Index of Rejected and Invalid Specific Names in Zoology.

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References

- Blanford, W.T. 1868. Notes on a journey in Northern Abyssinia. *Proceedings of the Asiatic Society of Bengal*, **37**: 276–287.
- Blanford, W.T. 1870. *Observations on the Geology and Zoology of Abyssinia, made during the progress of the British Expedition to that country in 1867–68*. 12, 487 pp., 7 pls. Macmillan and Co., London.
- Bonaparte, C.L. 1850. *Conspectus Generum Avium*, vol. 1. Pp. 105–543. E. J. Brill, Lugdunum, Batavorum.

- Brehm, A.E.** 1863. *Ergebnisse einer Reise nach Habesch im Gefolge seiner Hoheit des regierenden Herzogs von Sachsen-Koburg-Gotha Ernst II.* 439 pp. Otto Meissner, Hamburg.
- Cave, F.O. & Macdonald, J.D.** 1955. *Birds of the Sudan – their identification and distribution.* 27, 444 pp., 12 pls. Oliver & Boyd, Edinburgh, London.
- Cheke, R.A. & Mann, C.F.** 2001. *Sunbirds – a guide to the sunbirds, flowerpeckers, spiderhunters and sugarbirds of the world.* 384 pp., 48 pls. Christopher Helm / A. & C. Black Publishers, London.
- Clements, J.F.** 2000. *Birds of the World—A Checklist*, 5th edition. 867 pp. Pica Press, Robertsbridge, Sussex.
- Dickinson, E.C. (Ed.)**. 2003. *The Howard & Moore complete checklist of the birds of the world*, 3rd edition. 1039 pp. Christopher Helm, London.
- Ferret, P.V.A. & Galinier, J.G.** 1850. Énumération des Oiseaux recueillis en Abyssinie. Pp. 173–256 in Ferret, P.V.A., Galinier, J.G., Guérin-Méneville, F.E., Reiche, L. & Raffeneau-Delile, A. (Eds.), *Voyage en Abyssinie, dans les provinces du Tigré, du Samen et de l'Amhara dédié AS. A.R. Monseigneur le Duc de Nemours*, vol. 3. 536 pp. Paulin, Paris.
- Finsch, O.** 1870. On a collection of birds from North-Eastern Abyssinia and the Bogos Country—with notes by the collector, William Jesse, C.M.Z.S., Zoologist to the Abyssinian Expedition. *Transactions of the Zoological Society of London*, 7(4): 197–331.
- Fry, C.H., Keith, S. & Urban, E.K. (Eds.)**. 2000. *The Birds of Africa*, vol. 6 [Picathartes to Opeckers]. 724 pp., 36 pls. Academic Press, London.
- Gadow, H.** 1884. *Catalogue of the Passeriformes, or Perching Birds, in the collection of the British Museum—Cinnyrimorphae: containing the families Nectariniidae and Meliphagidae (Sun-Birds and Honey-Eaters)*, vol. 9. 12, 310 pp., 7 pls. British Museum, London.
- Hartert, E.** 1891. *Katalog der Vogelsammlung im Museum der Senckenbergischen Naturforschenden Gesellschaft in Frankfurt am Main.* 22, 259 pp. Gebrüder Knauer, Frankfurt am Main.
- Heuglin, M.Th. von.** 1864. Ornithologische Miscellen aus Central-Africa. *Journal für Ornithologie*, 12(4): 241–276.
- Heuglin, M.Th. von.** 1869. *Ornithologie Nordost-Afrika's, der Nilquellen- und Küsten-Gebiete des Rothen Meeres und des nördlichen Somal-Landes*, vol. 1 (1/2). 108, 851 pp., 26 pls. Theodor Fischer, Kassel.
- Hilgert, C.** 1908. *Katalog der Collection von Erlanger in Nieder-Ingelheim a. Rh.* 7, 527 pp., 1 pl. Verlag von R. Friedländer & Sohn, Berlin.
- Howard, R. & Moore, A.** 1991. *A Complete Checklist of the Birds of the World*, 2nd edition. 622 pp. Academic Press, London.
- Linnaeus, C.** 1766. *Systema Naturae*, Ed. 12. Vol. 1, part 1. 532 pp. Salvii, Holmiae.
- Lewis, A. & Pomeroy, D.** 1989. *A Bird Atlas of Kenya*. 15, 620 pp., 18 pls., 1 map. A.A. Balkema, Rotterdam.
- Mackworth-Praed, C.W. & Grant, C.H.B.** 1960. *Birds of Eastern and North Eastern Africa*, 2nd edition, vol. 2. [4], 1113 pp., 46, 19 pls. Longmans, Green and Co. Ltd., London.
- Moltoni, E.** 1937. Gli uccelli Eritrei esistenti nelle Collezioni del Museo Civico di Milano. *Atti della Società Italiana di Scienze Naturali*, 76: 211–254.
- Moltoni, E.** 1939. *Aves*, vol. 2(1). Pp. 4–39, 1 pl. Missione Biologica nel paese die Borana Raccolte zoologiche, Roma.
- Murs, O. des & Prévost, F.** 1847. Partie Oiseaux. Pp. 41–174, Appendix 160–182, 184–185 in Murs, O. des, Prévost, F., Guichenot, A. & Guérin-Méneville, F.E. *Notes de Zoologie*, vol. 6, Lefebvre, Ch.Th. (Ed.). *Voyage en Abyssinie exécuté pendant les Années 1839, 1840, 1841, 1842, 1843 par une Commission scientifique composée de MM. Théophile Lefebvre, Lieutenant de Vaisseau, Chevalier de la Légion d'honneur A. Petit et Martin-Dillon, Docteurs-Médecins, Naturalistes du Muséum Vignaud, Dessinateur Publié par ordre du Gouvernement sous les Auspices de M. le Ministre de la Marine.* 398 pp. Arthus Bertrand, Paris.
- Neumann, O.** 1906. Vögel von Schoa und Süd Äthiopien. *Journal für Ornithologie*, 54(2): 229–300.

- Nikolaus, G.** 1987. Distribution Atlas of Sudan's Birds with Notes on Habitat and Status. *Bonner Zoologische Monographien*, vol. 25. 322 pp. Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn.
- Rand, A.L.** 1967. Family Nectariniidae, Sunbirds. Pp. 208–289 in Paynter, R.A. & Mayr, E. (Eds.). *Check-List of Birds of the World*, vol. 12. 495 pp. Museum of Comparative Zoology, Cambridge, Mass.
- Reichenow, A.** 1904–1905. *Die Vögel Afrikas*, vol. 3. 880 pp. J. Neumann, Neudamm.
- Rüppell, E.** 1840. *Neue Wirbelthiere zu der Fauna von Abyssinien gehörig, entdeckt und beschrieben – Vögel.*, 2. Pp. 81–116, 31–42 pls. Siegmund Schmerber, Frankfurt am Main.
- Rüppell, E.** 1845. *Systematische Uebersicht der Vögel Nord-Ost-Afrika's nebst Abbildungen und Beschreibungen von fünfzig theils unbekannt, theils noch nicht bildlich dargestellten Arten.* 8, 140 pp., 50 pls. Schmerber'sche Buchhandlung, Frankfurt am Main.
- Salvadori, T.** 1873. Viaggio dei Signori A. Antinori, O. Beccari ed A. Issel nel Mar Rosso, nel Territorio dei Bogos e Regioni Circostanti durante gli Anni 1870–71—Catalogo degli Uccelli. *Annali del Museo Civico di Storia Naturale di Genova*, 4: 366–520.
- Salvadori, T.** 1884. *Uccelli dello Scioa e della regione fra Zeila e lo Scioa. Spedizione Italiana nell' Africa Equatoriale—Risultati Zoologici.* 268 pp. Istituto Sordo-Muti, Genova.
- Salvadori, T.** 1916. Notizie storiche intorno alla collezione ornithologica del Museo Torino. *Memorie della (Reale) Accademia delle Scienze di Torino*, ser. 2, 65(5): 1–50.
- Shelley, G.E.** 1878. *A Monograph of the Nectariniidae or Family of Sun-Birds.* [1876–1880]. 383 pp., 121 pls. Captain G. E. Shelley, London.
- Shelley, G.E.** 1900. *The Birds of Africa—comprising all the species which occur in the Ethiopian region*, vol. 2. 7, 348 pp., 14 pls. R.H. Porter, London.
- Smith, K.D.** 1957. An annotated check list of the birds of Eritrea. *The Ibis*, 99(1): 1–26.
- Steinbacher, J.** 1949. Typen und Typoide des Natur-Museums Senckenberg. 3—Kritisches Verzeichnis von Eduard Rüppell's und Ph. J. Cretzschmar's Vogel-Typen. *Senckenbergiana*, 30(1/3): 99–120.
- Toschi, A.** 1959. Contributo alla Ornitofauna d'Etiopia –1. Uccelli raccolti ed osservati in Abissinia dal 1939 al 1942. *Laboratorio di Zoologia Applicata alla Caccia Università di Bologna—Suppl. alle Ricerche di Zoologie Applicata alla Caccia*, 2(11): 301–412.
- Vaillant, F. Le.** 1808. *Histoire naturelle des Oiseaux d'Afrique*, vol. 6. 188 pp. Delachaussee, Paris.
- Wolters, H.E.** 1979. *Die Vogelarten der Erde—Eine systematische Liste mit Verbreitungsangaben sowie deutschen und englischen Namen*, Lief. 4. Pp. 241–320. Paul Parey, Hamburg, Berlin.

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Comments on the proposed conservation of the specific name of *Helix papillaris* Müller, 1774 (currently *Papillifera papillaris*; Mollusca, Gastropoda)
(Case 3319; see BZN 62: 130–133)

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I do not support the application by Giusti & Manganelli requesting the conservation of the name *Helix papillaris* Müller, 1774 and suppression of *Turbo bidens* Linnaeus, 1758. I think that a simple species taxon possibly being threatened by a senior synonym alone does not justify an application to the Commission. *Helix papillaris* is not the type species of an important genus so, apart from this single species name, nothing more is threatened. Species names have to be replaced by older synonyms, this is something that happens from time to time and malacologists are used to this. Although *Papillifera papillaris* is a well-known name, I could also live with this name being changed. Both names were used in the recent past. Nordsieck (2002, p. 36) used the name *Papillifera bidens*. Dhora & Welter-Schultes (1996, p. 136) cited both names.

At first I agreed with most points raised by Giusti & Manganelli (2005). Gualtieri's (1742) pl. 4 fig. C seems to represent a specimen of *Cochlodina laminata* (Montagu, 1803) or another species with reddish shell and without white dots along the suture. Buonanni's (1684) section 3, fig. 41 seems to represent a specimen of *Helix papillaris* Müller, 1774, or a conchologically similar species. It is possible that the Latin words of Linnaeus's diagnosis did not really match the species with the dots on the suture. Fixing a neotype for *Helix papillaris* Müller, 1774 seemed to be justified because obviously (in contrast to Giusti & Manganelli's initial statement) Müller's diagnosis was not clear enough. However, there remains material to be discussed. To me it seems that Linnaeus (1758) had several different species in mind. Giusti & Manganelli ignored the point that Linnaeus himself tried to specify what he meant when, in the 12th edition (1767, p. 1240), he added Buonanni's figure to the list of references ('Bonan. recr. 3. t. 41. Aucta.'). This suggests that this figure also obviously matched Linnaeus's idea of the species or the specimens he examined. However, the text of the description alone does not convince me that he could not have meant *P. papillaris*. Schröter (1784, p. 55) referred to Linné, 1767 (not to Linnaeus, 1758) and suspected that the citation by Gualtieri (1742, pl. 4, fig. C) was an error and had to be replaced by figs. D and E. In my opinion this is a possible and justified interpretation considering that the confusion was initiated by Linnaeus himself. As the first reviser, Schröter intended to specify which species Linnaeus had meant among several possible ones. He explicitly mentioned a specimen from Firenze in his collection.

Citing Rossmässler's (1835) Latin malacological dictionary, Giusti & Manganelli claimed that the name *Helix papillaris* cannot be derived from the original Latin text. I am not convinced for three reasons. First, Rossmässler's publication was issued nearly 80 years after Linnaeus's description. We have to consider that in the meantime it had become necessary to define and fix Latin malacological expressions because nobody spoke Latin except a few scientists, the language developed faster than any other language and many terms had been unclear. Second, there are reasons

to suspect that Linnaeus did not mention the white dots for good reasons. In old and eroded shells the white dots are expressed much more faintly than in fresh shells. It is also possible that Linnaeus saw some shells with dots and some without, and did not mention the dots because he thought this feature was not characteristic for what he thought was one species. And third, a possible misinterpretation of the Latin text, particularly the expression 'sutura subcrenata', would also apply to Linnaeus himself as demonstrated in the 1767 work. If the Latin description was clear and the words were misinterpreted by Schröter and Falkner et al., Linnaeus is also to be added to the list of authors who misinterpreted his own text. However, this does not make much sense. It remained unclear what Linnaeus really meant and Schröter had to make a decision.

I do not think that it is useful and necessary, at the current state of discussion, to ask the Commission to solve the problem. The malacologists can and should solve the problem internally. The neotype designation by Falkner et al. (2002) for *Turbo bidens* is not effective. It does not fit the condition that a neotype must be based on a specimen deposited in a research collection of a recognized scientific or educational institution, cited by name (Article 75.3.7). I would recommend designating the neotype of *Helix papillaris* Müller, 1774 as the neotype of *Turbo bidens* Linnaeus, 1758. This action would also be in accord with Schröter's revision because the neotype specimen is from Firenze. No decision by the Commission is necessary. I am also against placing a name on an Official List or Index. I am generally opposed to the idea of an Official List, for which I see no need. In my opinion the historical nomenclatural system is sufficient.

Additional references

- Buonanni, F.** 1684. *Recreatio mentis, et oculi in observatione Animalium Testaceorum curiosi naturæ inspectoribus: Italico sermone primum proposita . . . nunc denuo ab eodem Latine oblata, centum additis Testaceorum iconibus, circa quæ varia problemata proponuntur.* xvi, 270 [10] pp., 139 pls. Romae.
- Dhora, D. & Welter-Schultes, F.W.** 1996. List of species and atlas of the non-marine molluscs of Albania. *Schriften zur Malakozoologie*, **9**: 90–197.

(2) Michael Hölling

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I would like to bring to your attention the fact that Falkner, Ripken & Falkner, (2002, pp. 112–113), in a checklist of French continental molluscs published in the context of the CLECOM-project, selected a neotype for *Turbo bidens* Linnaeus, 1758, thereby stabilizing the usage of the name, which is also used by one of the leading clausiliid specialists, Hartmut Nordsieck (see <http://www.clausilia.de/>). Therefore, I consider the proposition of Giusti & Manganelli unnecessary.

(3) E. Gittenberger

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I would like to emphasize that I agree with the proposals in BZN **62**: 132. In my view stability is served the best possible way by accepting the proposals.

Comment on the proposed conservation of usage of the name *Bythinella* Moquin-Tandon, 1856 (Mollusca, Gastropoda, Prosobranchia, RISSOOIDEA) by designation of *Bulinus viridis* Poiret, 1801 as the type species
(Case 3321; see BZN 62: 134–139)

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I agree with the proposals in BZN 62: 137. In my view stability is best served by accepting these proposals.

Comment on the proposed precedence of TUBIFICIDAE Vejdovský, 1876 over NAIDIDAE Ehrenberg, 1828 (Annelida, Clitellata)
(Case 3305; see BZN 62: 226–231)

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Zoological nomenclature as a tool of systematics has two, often controversial, main tasks: reflecting the phylogeny of the animals and enabling biologists to easily survey taxa for any other purpose. The phylogenetic (in principle, ideal) system is in eternal competition with the more or less artificial but stable and comprehensive system used in practical research and teaching. The first one is formally preferred; however, its orthodox application would be simply ignored by the majority of zoologists.

The Principle of Priority, a cornerstone of zoological nomenclature, can fall into similar controversy with the everyday needs of zoology. In this case a decision either for or against the proposals is likely to cause problems.

The NAIDIDAE (NOW NAIDINAE) proved to be a derived group descending from the much larger stem group TUBIFICIDAE *sensu stricto*. Thus, possible nomenclatural changes in the first group would affect considerably fewer taxa than those in the second. This is the pragmatic reason why I support the proposal made by Erséus, Gustavsson and Brinkhurst.

Comment on the proposed reinstatement of the specific name of *Sphyaena acus* Lacepède, 1803 (currently *Tylosurus acus*; Teleostei, BELONIDAE)
(Case 3297; see BZN 62: 232–236)

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James D. Williams

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We, members of the Committee on Names of Fishes, a joint committee of the American Fisheries Society and the American Society of Ichthyologists and Herpetologists, support the proposal by Collette & Parin that the Commission use its plenary power and reinstate the specific name of *Sphyræna acus* Lacepède, 1803. We believe that the petitioners make an excellent case for this action. In our various editions of *Common and scientific names of fishes . . .*, our committee used the specific name as *Strongylura acus* in 1960 and as *Tylosurus acus* in 1970, 1980, 1991 and 2004. During the preparation of the 2004 edition (Nelson et al., 2004), we were prepared to follow Opinion 900 and accept the suppression of the name *Tylosurus acus* (Lacepède, 1803) and use *Tylosurus imperialis* (Rafinesque, 1810). However, given analyses that almost all authors, both in systematic and non-systematic literature, continue to use the specific name *acus*, as earlier advocated by Collette & Berry, 1965 (p. 391) and with which we agree, we continued to use *acus*. Present usage is compatible with the fact that the type locality for the oldest available name, *T. acus*, is the West Indies, while that for *T. imperialis* is the Mediterranean Sea. Amending the ruling in Opinion 900 (1) and placing the name *acus*, as published in the binomen *Sphyræna acus* Lacepède, 1803, on the Official List of Specific Names in Zoology as proposed in BZN 62: 234 will have the greatest stabilizing effect.

**Comment on the proposed conservation of *Palamopus* E. Hitchcock, 1845
(Ichnotaxa, Reptilia?)**

(Case 3348; see BZN 62: 237–239)

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I support Emma Rainforth's (BZN 62: 237–239) application to conserve *Palamopus* Hitchcock, 1845 and suppress its senior objective synonym *Sauroidichnites* Hitchcock, 1837. I base my support of her application on the following

considerations: *Sauroidichnites* Hitchcock, 1837 is the senior objective synonym of *Palamopus* Hitchcock, 1845 but has not been used as a valid name after 1899, so it is a nomen oblitum; *Palamopus* Hitchcock, 1845 has been used since 1899, though not in a sufficient number of works by enough authors during the last 50 years to satisfy the conditions of Article 23.9.1.2. Nevertheless, all of the usage since 1845 has been of the name *Palamopus*. Furthermore, most workers have considered Lull (1953) to be the standard work on Connecticut Valley tracks, and Lull used *Palamopus*. Haubold (1971), in another standard compendium, also used *Palamopus*.

Rainforth (2005, pp. 356–361) reviewed in detail the tortured ichnotaxonomic history of *Palamopus* and also reviewed (pp. 436–439) the even more tortured history of *Sauroidichnites*. These reviews demonstrate that *Sauroidichnites* is the more problematical name. Thus, for example, *Ornithichnites palmatus* is the type species of *Sauroidichnites*, but most authors have erroneously considered its type species to be *S. barrattii*, which is a nomen nudum. The name *Sauroidichnites* reflects Hitchcock's early philosophy in naming the Connecticut Valley footprints he studied. He thought that these footprints represented three classes of vertebrates (amphibians, reptiles and birds) and coined an ichnogenetic name for each class: *Batrachoidichnites*, *Sauroidichnites* and *Ornithoidichnites*, respectively. Each broadly construed ichnogenus encompassed many ichnospecies. In 1845, Hitchcock abandoned that philosophy and coined new ichnogenetic names more similar to the kinds of ichnogenetic names coined since. *Palamopus* Hitchcock, 1845, with one ichnospecies, is such a name. Most significantly, in 1845 Hitchcock abandoned his own name *Sauroidichnites* and did not use it again.

In summary, the confused ichnotaxonomic name *Sauroidichnites* was based on an antiquated and long abandoned philosophy of ichnotaxonomy. The original author of *Sauroidichnites* abandoned it in 1845 and it has not been used since. *Palamopus* is a less confused ichnotaxonomic name and all 20th century usage has been of *Palamopus*. Therefore, it makes sense to suppress *Sauroidichnites* and conserve the name *Palamopus*.

OPINION 2133 (Case 3211)**CLIONIDAE d'Orbigny, 1851 (Porifera, Hadromerida): emended to CLIONAIDAE to remove homonymy with CLIONIDAE Rafinesque, 1815 (Mollusca, Pteropoda)**

Abstract. The Commission has ruled that homonymy between the family names CLIONIDAE Rafinesque, 1815 (Mollusca) and CLIONIDAE d'Orbigny, 1851 (Porifera) is removed by changing the spelling of the junior homonym, and that the entire generic name *Cliona* Grant, 1826 (Porifera) is used to form the name CLIONAIDAE, leaving the stem of the senior homonym (based on the name *Clione* Pallas, 1774, Mollusca) unchanged.

Keywords. Nomenclature; taxonomy; CLIIDAE; CLIONAIDAE; CLIONIDAE; *Clio*; *Cliona*; *Clione*; *Clio pyramidata*; *Cliona celata*; *Clione borealis*; pteropods; boring sponges.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) for the purposes of Article 29 of the Code the stem of the generic name *Cliona* Grant, 1826 is *Cliona*-;
 - (b) the type genus of the family CLIONIDAE Rafinesque, 1815 is *Clione* Pallas, 1774 and not *Clione* Rafinesque, 1815.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Clio* Linnaeus, 1767, type species by subsequent designation by Gray (1847) *Clio pyramidata* Linnaeus, 1767 (Mollusca);
 - (b) *Clione* Pallas, 1774, type species by monotypy *Clione borealis* Pallas, 1774 (Mollusca);
 - (c) *Cliona* Grant, 1826, type species by monotypy *Cliona celata* Grant, 1826 (Porifera).
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *pyramidata* Linnaeus, 1767, as published in the binomen *Clio pyramidata* (specific name of the type species of *Clio* Linnaeus, 1767) (Mollusca);
 - (b) *limacina* Phipps, 1774, as published in the binomen *Clio limacina* (senior synonym of *Clione borealis* Pallas, 1774, specific name of the type species of *Clione* Pallas, 1774) (Mollusca);
 - (c) *celata* Grant, 1826, as published in the binomen *Cliona celata* (specific name of the type species of *Cliona* Grant, 1826) (Porifera).
- (4) The following names are hereby placed on the Official List of Family-Group Names in Zoology:
 - (a) CLIONIDAE Rafinesque, 1815, type genus *Clione* Pallas, 1774 (Mollusca);
 - (b) CLIONAIDAE d'Orbigny, 1851, type genus *Cliona* Grant, 1826 (spelling emended by the ruling in (1) above) (Porifera);

- (c) CLIIDAE Jeffreys, 1869, type genus *Clio* Linnaeus, 1767 (nomen protectum Bouchet & Rocroi, 2005. *Malacologia*, **47**: 51) (Mollusca).
- (5) The name *Clione* Rafinesque, 1815 (a junior homonym of *Clione* Pallas, 1774, placed on the Official List of Generic Names in Zoology in (2)(b) above) ruled in (1)(b) above not to be the type genus of CLIONIDAE Rafinesque, 1815 (Mollusca) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.
- (6) The name CLIONIDAE d'Orbigny, 1851 (an incorrect original spelling of CLIONAIDAE, as ruled in (1)(a) above) (Porifera) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology.

History of Case 3211

An application to remove homonymy between the family names CLIONIDAE Rafinesque, 1815 (Mollusca) and CLIONIDAE d'Orbigny, 1851 (Porifera) by changing the spelling of the junior homonym was received from Philippe Bouchet (*Muséum national d'Histoire naturelle, Paris, France*) and Klaus Rützler (*National Museum of Natural History, Smithsonian Institution, Washington, DC, U.S.A.*) on 2 July 2001. After correspondence the case was published in BZN **60**: 99–102 (June 2003). The title, abstract and keywords of the case were published on the Commission's website. A comment requesting that additional names be taken into consideration was published in BZN **61**: 167–169 to which one of the authors replied in BZN **62**: 84–86.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN **60**: 100–101 as emended on the voting paper. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 21: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Ng, Nielsen, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative votes – none.

Comments by Alonso-Zarazaga, Calder, Kerzhner and van Tol, agreed by Bouchet, are taken into consideration by corrections given in this Opinion.

Original references

The following are the original references to the names placed on Official Lists and Indexes by the ruling given in the present Opinion:

celata, *Cliona*, Grant, 1826, *The Edinburgh New Philosophical Journal*, **1826**: 78.

Clio Linnaeus, 1767, *Systema Naturae*, Ed. 12, vol. 1, p. 1094.

CLIIDAE Jeffreys, 1869, *British conchology*, vol. 5, p. 118.

Cliona Grant, 1826, *The Edinburgh New Philosophical Journal*, **1826**: 78.

CLIONAIDAE d'Orbigny, 1851, *Cours élémentaire de paléontologie et de géologie stratigraphiques*, vol. 2, p. 209.

Clione Pallas, 1774, *Spicilegium Zoologica*, vol. 1, fasc. 10, p. 28.

CLIONIDAE d'Orbigny, 1851, *Cours élémentaire de paléontologie et de géologie stratigraphiques*, vol. 2, p. 209.

CLIONIDAE Rafinesque, 1815, *Analyse de la Nature ou tableau de l'univers et des corps organisés*, p. 141.

limacina, *Clio*, Phipps, 1774, *A voyage towards the North Pole undertaken by His Majesty's command 1773*, p. 195.

pyramidata, *Clio*, Linnaeus, 1767, *Systema Naturae*, Ed. 12, vol. 1, p. 1094.

The following is the reference for the designation of *Clio pyramidata* Linnaeus, 1767 as the type species of the nominal genus *Clio* Linnaeus, 1767 (type genus of the family CLIIDAE Jeffrey, 1869):

Gray, J.E. 1847. *Proceedings of the Zoological Society of London*, **15**: 203.

OPINION 2134 (Case 3316)***Hindia* Duncan, 1879 (Porifera): conserved**

Abstract. The Commission has ruled that the name *Hindia* Duncan, 1879 is conserved for a fossil demosponge genus ranging from the Ordovician to the Devonian by the suppression of two senior synonyms, the little used *Sphaerolites* Hinde, 1875 and *Microspongia* Miller & Dyer, 1878 of doubtful identity.

Keywords. Nomenclature; taxonomy; Porifera; HINDIIDAE; *Hindia*; *Sphaerolites*; *Microspongia*; fossil sponges; Ordovician; Silurian; Devonian.

Ruling

- (1) Under the plenary power it is ruled that the following generic names are hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *Microspongia* Miller & Dyer, 1878;
 - (b) *Sphaerolites* Hinde, 1875.
- (2) The name *Hindia* Duncan, 1879 (gender: feminine), type species by monotypy *Hindia sphaeroidalis* Duncan, 1879 is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *sphaeroidalis* Duncan, 1879, as published in the binomen *Hindia sphaeroidalis* (specific name of the type species of *Hindia* Duncan, 1879), is hereby placed on the Official List of Specific Names in Zoology.
- (4) The name HINDIIDAE Rauff, 1894, type genus *Hindia* Duncan, 1879, is hereby placed on the Official List of Family-Group Names in Zoology.
- (5) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Microspongia* Miller & Dyer, 1878 (as suppressed in (1)(a) above);
 - (b) *Sphaerolites* Hinde, 1875 (as suppressed in (1)(b) above).
- (6) The name MICROSPONGIIDAE Howell, 1940 is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology (invalid because the name of the type genus is suppressed in (1)(a) above).

History of Case 3316

An application to conserve the name *Hindia* Duncan, 1879 for a fossil demosponge genus by the suppression of two senior synonyms, *Sphaerolites* Hinde, 1875 and *Microspongia* Miller & Dyer, 1878, was received from J. Keith Rigby (*Brigham Young University, Provo, Utah, U.S.A.*) on 27 February 2004. After correspondence the case was published in BZN 61: 80–82 (June 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN 61: 81. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 16: Alonso-Zarazaga, Bock, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Rosenberg and Song.

Negative votes – 4: Bouchet, Patterson, Štys and van Tol.

No vote was received from Ng.

Voting against, Bouchet commented: ‘the name *Hindia* was treated as a junior synonym of *Microspongia* in no less than the *Treatise* (de Laubenfels, 1955), and it is hard to understand why the nomenclatural consequence of this taxonomic synonymy is not accepted by the applicant. After the *Treatise* (de Laubenfels, 1955), the senior synonym was used as the valid name by one author (Zhuravleva, 1962) and the junior synonym was used as the valid name by two authors (Bayer, 1967 and the applicant: Rigby & Chatterton, 1989, 1999 and Rigby & Webby, 1988). Such limited usage does not warrant the use of the plenary power’.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Hindia Duncan, 1879, *Annals and Magazine of Natural History*, (5)4: 91.

HINDIIDAE Rauff, 1894, *Sitzungsberichte der Niederrheinischen Gesellschaft für Natur und Heilkunde*, vol. 43, p. 327.

Microspongia Miller & Dyer, 1878, *Cincinnati Society of Natural History Journal*, 1: 37.

MICROSPONGIIDAE Howell, 1940, *Bulletin of the Wagner Free Institute of Sciences*, 15: 45.

sphaeroidalis, *Hindia*, Duncan, 1879, *Annals and Magazine of Natural History*, (5)4: 91.

Sphaerolites Hinde, 1875, *Abstracts of the Proceedings of the Geological Society of London*, 305: 8.

OPINION 2135 (Case 3261)**THEBINI Wenz, 1923, MONACHAINAE/MONACHAINI Wenz, 1930 (1904), and SPHINCTEROCHILIDAE Zilch, 1960 (1910) (Mollusca, Gastropoda): conserved**

Abstract. The Commission has ruled that the family-group names THEBINI Wenz, 1923, MONACHAINAE / MONACHAINI Wenz, 1930 (1904) and SPHINCTEROCHILIDAE Zilch, 1960 (1910) are conserved for several West Palaearctic helicoid land snails. Problems arising as a consequence of rulings given in Opinion 431 (1956) are resolved by placing the names THEBINI Wenz, 1923, MONACHAINAE / MONACHAINI Wenz, 1930 (1904) and SPHINCTEROCHILIDAE Zilch, 1960 on the Official List.

Keywords. Nomenclature; taxonomy; Pulmonata; THEBINI; MONACHAINAE; MONACHAINI; SPHINCTEROCHILIDAE; *Leucochroa*; *Monacha*; *Sphincterochila*; land snails; Palaearctic.

Ruling

- (1) Under the plenary power it is hereby ruled:
 - (a) that the name THEBINI Wenz, 1923 is not invalid by reason of its type genus being misidentified and that fixation of the type species had been overlooked;
 - (b) that for the purposes of Article 29 of the Code the stem of the generic name *Monacha* Fitzinger, 1833 is *Monacha-*;
 - (c) that the generic name *Leucochroa* Beck, 1837, type species by subsequent designation by Herrmannsen (1847) *Helix albella* Linnaeus, 1758, is suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy;
 - (d) that the family-group name LEUCOCHROIDAE Westerlund, 1886, type genus *Leucochroa* Beck, 1837 (type species *Helix candidissima* Draparnaud, 1801), is suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy, by reason of being based on a misidentified type genus, as suppressed in (1)(c) above, itself based on a misidentified type species.
- (2) The name *Sphincterochila* Ancey, 1887 (gender: feminine), type species by subsequent designation by Pilsbry (1895) *Helix boissieri* Charpentier, 1847, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The entry on the Official List of Generic Names in Zoology for the name *Monacha* Fitzinger, 1833 is hereby emended to record that *Helix cartusiana* O.F. Müller, 1774 is the type species by subsequent designation by Herrmannsen (1847) and that the stem of *Monacha* is *Monacha-*, as ruled in (1)(b) above.
- (4) the following names are hereby placed on the Official List of Family-Group Names in Zoology:

- (a) THEBINI Wenz, 1923, type genus *Theba* Risso, 1826 (type species by subsequent designation by Gray (1847) *Helix pisana* O.F. Müller, 1774), with the endorsement that it is not to take the priority of CARTHUSIANINI Kobelt, 1904, not invalid by the ruling in (1)(a) above;
- (b) MONACHAINAE / MONACHAINI Wenz, 1930, type genus *Monacha* Fitzinger, 1833 (type species by subsequent designation by Herrmannsen (1847) *Helix cartusiana* O.F. Müller, 1774), with the endorsement that it is to take the priority of CARTHUSIANINI Kobelt, 1904, and is to be cited MONACHAINAE/MONACHAINI Wenz, 1930 (1904);
- (c) SPHINCTEROCHILIDAE Zilch, 1960, type genus *Sphincterochila* Ancy, 1887 (type species by subsequent designation by Pilsbry (1895) *Helix boissieri* Charpentier, 1847), with the endorsement that it is to take the priority of LEUCOCHROIDAE Westerlund, 1886.
- (5) The following names are hereby placed on the Official Index of Generic Names in Zoology:
- (a) *Teba* Turton, 1831 (an incorrect subsequent spelling of *Theba* Risso, 1826);
- (b) *Teba* Beck, 1847 (an incorrect subsequent spelling of *Theba* Risso, 1826);
- (c) *Leucochroa* Beck, 1837 (an objective synonym of *Theba* Risso, 1826 and suppressed in (1)(c) above);
- (d) *Carthusiana* Kobelt, 1871 (an objective synonym of *Monacha* Fitzinger, 1833).
- (6) The following names are hereby placed on the Official Index of Family-Group Names in Zoology:
- (a) XEROPHILIDAE Mörch, 1864 (based on a generic name placed on the Official Index in Opinion 431);
- (b) LEUCOCHROIDAE Westerlund, 1886 (based on a misidentified type genus suppressed in (1)(c) above);
- (c) CARTHUSIANINI Kobelt, 1904 (replaced by MONACHAINAE / MONACHAINI under Article 40.2 and based on a genus placed on the Official Index in (5)(d) above);
- (d) CALCARINIDAE Pallary, 1909 (based on a generic name which is a junior homonym);
- (e) MONACHINAE Wenz, 1930 (an incorrect original spelling of MONACHAINAE);
- (f) EUPARYPHINAE Perrot, 1939 (based on a generic name placed on the Official Index in Opinion 431).

History of Case 3261

An application to conserve the family-group names THEBINI Wenz, 1923, MONACHAINAE Wenz, 1930 (1904) and SPHINCTEROCHILIDAE Zilch, 1960 (1910) for several West Palaearctic helicoid land snails was received from Philippe Bouchet and Jean-Pierre Rocroi (*Muséum national d'Histoire naturelle, Paris, France*) on 12 August 2002. Issues raised in the application had been partly resolved in Opinion 431 (1956) by placing the names *Helicella*, *Monacha* and *Theba* on the Official List, and the names *Euparypha*, *Jacosta*, and *Xerophila* on the Official Index. However, the consequences of these rulings on family-group names had not been addressed. After correspondence the case was published in BZN 61: 154–161 (September 2004). The title,

abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN 61: 158–159. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 21: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Ng, Nielsen, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative votes – none.

Original references

The following are the original references to the names placed on Official Lists and Indexes by the ruling given in the present Opinion:

- CALCARINIDAE Pallary, 1909, *Mémoires présentés à l'Institut Egyptien*, 6(1): 12.
Carthusiana Kobelt, 1871, *Catalog der im Europäischen Faunengebiet lebenden Binnenconchylien : mit besonderer Berücksichtigung der in Rossmässler's Sammlung enthaltenen Arten*, p. 24.
 CARTHUSIANINI Kobelt, 1904, *Iconographie der Land- und Süßwasser-Mollusken mit vorzüglicher Berücksichtigung der Europäischen noch nicht abgebildeten Arten*, Neue Folge, Bd. 11, p. 162.
 EUPARYPHINAE Perrot, 1939, *Compte-Rendu des Séances de la Société de Physique et d'Histoire naturelle de Genève*, 56(1) [in: *Supplément aux Archives des Sciences physiques et naturelles*, (5)21]: 35.
Leucochroa Beck, 1837, *Index 'Molluscorum praesentis aevis Musei Principis Augustissimi Christiani Frederici*, p. 16.
 LEUCOCHROIDAE Westerlund, 1886, *Fauna der in der palaärcischen Region lebenden Binnenconchylien. I. Fam. Testacellidae, Glaudividae, Vitrinidae und Leucochroidae*, p. 82.
 MONACHAINI Wenz, 1930 (1904), *Fossilium Catalogus, I: Animalia*, pars 46(11), p. 3027.
 MONACHINAE Wenz, 1930, *Fossilium Catalogus, I: Animalia*, pars 46(11), p. 3027.
Sphincterochila Ancey, 1887, *The Conchologists' Exchange*, 2(2): 23.
 SPHINCTEROCHILIDAE Zilch, 1960, *Handbuch der Paläozoologie*, Band 6, Lief. 4, *Gastropoda*, p. 663.
Teba Turton, 1831, *A manual of the land and fresh-water shells of the British Islands*, p. 36.
Teba Beck, 1847, *Ämtlicher Bericht über die Versammlung Deutscher Naturforscher und Ärzte in Kiel im September 1846*, 24(2): 122.
 THEBINI Wenz, 1923, *Fossilium Catalogus, I: Animalia*, pars 18(2) [1923], p. 381.
 XEROPHILIDAE Mörch, 1864, *Videnskabelige Meddelelser fra den Naturhistorisk Forening i Kjobenhavn*, 17–22(1863): 281.

The following is the reference for the designation of *Helix boissieri* Charpentier, 1847 as the type species for *Sphincterochila* Ancey, 1887:

Filsbry, H.A. 1895. *Manual of Conchology*, (2)9(33a, 36), p. 234.

OPINION 2136 (Case 3311)***Bathyporeia elegans* Watkin, 1938 (Crustacea, Amphipoda): specific name conserved**

Abstract. The Commission has ruled that the specific name of *Bathyporeia elegans* Watkin, 1938, for a common species of amphipod, is conserved by the suppression of the senior homonym *Bathyporeia elegans* Crawford, 1937.

Keywords. Nomenclature; taxonomy; Crustacea; Amphipoda; PONTOPOREIIDAE; *Bathyporeia elegans*.

Ruling

- (1) Under the plenary power it is ruled that the name *elegans* Crawford, 1937, as published in the binomen *Bathyporeia elegans*, is hereby suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy.
- (2) The name *elegans* Watkin, 1938, as published in the binomen *Bathyporeia elegans* and as defined by the lectotype (Zoologisk Museum i Oslo, ZMO F2656) designated by d'Udekem d'Acoz (2004), is hereby placed on the Official List of Specific Names in Zoology.
- (3) The name *elegans* Crawford, 1937, as published in the binomen *Bathyporeia elegans* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3311

An application to conserve the specific name of *Bathyporeia elegans* Watkin, 1938, threatened by the senior homonym *Bathyporeia elegans* Crawford, 1937, was received from Cédric d'Udekem d'Acoz and Wim Vader (*Tromsø Museum, University of Tromsø, Tromsø, Norway*) on 3 February 2004. After correspondence the case was published in BZN 61: 162–164 (September 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN 61: 163. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 21: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Ng, Nielsen, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative votes – none.

Voting for, Ng commented that it is 'not an ideal situation all round, but a yes vote will move things forward at least'. Also voting for, Štys commented that he is still in doubt that the name *Bathyporeia elegans* Crawford, 1937 exists and is available. It is simply a lapsus calami concerning Sars's (1891) name, and has, in his opinion, no status in nomenclature.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

elegans, *Bathyporeia*, Watkin, 1938, *Journal of the Marine Biological Association of the United Kingdom*, **23**: 222.

elegans, *Bathyporeia*, Crawford, 1937, *Journal of the Marine Biological Association of the United Kingdom*, **21**: 639.

The following is the reference for the designation of the lectotype of *Bathyporeia elegans* Watkin, 1938:

Udekem d'Acoz, C. d'. 2004. *Zoologische Verhandelingen*, **348**: 33.

OPINION 2137 (Case 3285)***Pemphigus* Hartig, 1839 (Insecta, Hemiptera, APHIDIDAE): conserved**

Abstract. The Commission has ruled that the generic name *Pemphigus* Hartig, 1839 is conserved for a group of aphids of economic importance by suppression of the senior subjective synonym *Rhizobius* Burmeister, 1835.

Keywords. Nomenclature; taxonomy; Hemiptera; APHIDIDAE; *Pemphigus*; *Rhizobius*.

Ruling

- (1) Under the plenary power it is ruled that the name *Rhizobius* Burmeister, 1835 is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) The entry on the Official List of Generic Names in Zoology for *Pemphigus* Hartig, 1839 is hereby emended to record that it is conserved by suppression of *Rhizobius* Burmeister, 1835.
- (3) The name *Rhizobius* Burmeister, 1835, as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 3285

An application to conserve the generic name *Pemphigus* Hartig, 1839 for a group of aphids of economic importance, by suppression of the senior subjective synonym *Rhizobius* Burmeister, 1835, was received from Juan M. Nieto Nafría and Nicolás Pérez Hidalgo (*Universidad de León, Spain*) and Miguel A. Alonso-Zarazaga (*Museo Nacional de Ciencias Naturales (CSIC), José Gutiérrez Abascal 2, Madrid, Spain*) on 8 May 2003. After correspondence the case was published in BZN 61: 100–102 (June 2004). The title, abstract and keywords of the case were published on the Commission's website. A comment in support of the proposals was printed on the voting paper.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN 61: 101. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 20: Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Ng, Nielsen, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative votes – none.

Alonso-Zarazaga abstained.

Original references

The following is the original reference to the name placed on an Official Index by the ruling given in the present Opinion:

Rhizobius Burmeister, 1835, *Handbuch der Entomologie*, vol. 2, p. 87.

OPINION 2138 (Case 3097)***Bolboceras* Kirby, 1819 (July) (Insecta, Coleoptera): not conserved; priority maintained for *Odonteus* Samouelle, 1819 (June)**

Abstract. The Commission has ruled that priority should be maintained for the generic name *Odonteus* Samouelle, 1819 for a group of scarab beetles (family GEOTRUPIDAE). The junior name *Bolboceras* Kirby, 1819 is not given precedence over the older name whenever they are considered to be synonyms. In the interest of stability all previous fixations of type species for the nominal genus *Bolboceras* Kirby, 1819 are set aside and *Scarabaeus quadridens* Fabricius, 1781 is designated as the type species.

Keywords. Nomenclature; taxonomy; Coleoptera; GEOTRUPIDAE; *Bolboceras*; *Odonteus*; *Scarabaeus quadridens*; scarab beetle.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Bolboceras* Kirby, 1819 are hereby set aside and *Scarabaeus quadridens* Fabricius, 1781 is designated as the type species.
- (2) It is hereby ruled that the name *Odonteus* Samouelle, 1819 retains priority over the name *Bolboceras* Kirby, 1819 whenever the two are considered to be synonyms.
- (3) The following names are hereby placed on the Official List of Generic names in Zoology:
 - (a) *Odonteus* Samouelle, 1819 (gender: masculine), type species by monotypy *Scarabaeus mobilicornis* Fabricius, 1775;
 - (b) *Bolboceras* Kirby, 1819 (gender: neuter), type species by designation in (1) above *Scarabaeus quadridens* Fabricius, 1781.
- (4) The name *quadridens* Fabricius, 1781, as published in the binomen *Scarabaeus quadridens* and as defined by the lectotype designated in BZN 60: 306 (specific name of the type species of *Bolboceras* Kirby, 1819), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3097

An application to conserve the generic name *Bolboceras* Kirby, 1819 for a group of scarab beetles (family GEOTRUPIDAE) by giving it conditional precedence over the older name *Odonteus* Samouelle, 1819 was received from M.L. Jameson (*University of Nebraska State Museum, Lincoln, Nebraska, U.S.A.*) and H.F. Howden (*Canadian Museum of Nature, Ottawa, Canada*) on 26 August 1998. After correspondence the case was published in BZN 59: 246–248 (December 2002). The title, abstract and keywords of the case were published on the Commission's website. Three comments in support of the application, providing additional information relevant to the case, were published in BZN 59: 280–281; 61: 43 and 113–114. A lengthy comment opposing the proposals was published in BZN 60: 303–311 in which alternative

proposals were published (p. 307), to which the author's reply (BZN 61: 43–45) was answered in BZN 61: 110–113. Another comment in opposition was published in BZN 61: 171–173. Two comments correcting the gender of the name *Bolboceras* to neuter were published (BZN 61: 113–114; 62: 28–29) and were reflected in the proposals printed on the voting paper.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN 59: 247, restated on the voting paper with corrections, and alternative proposals (BZN 60: 307) also reprinted on the voting paper. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes:

original proposals BZN 59: 247 para. 6 (1)-(3) – 3: Bock, Papp and Song;

original proposals BZN 59: 247 para. 6 (3)(a)-(b) – 1: Patterson;

original proposals BZN 59: 247 para. 6 (3)(b) – 3: Alonso-Zarazaga, Lamas and Mahnert.

Negative vote (opposing all proposals) – 1: Kerzhner.

Negative votes (opposing original proposals para. 6 (1)-(3)), approving the alternative proposals BZN 60: 307 para. 9 (1)-(3) – 17: Alonso-Zarazaga, Bouchet, Brothers, Calder, Fortey, Halliday, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Ng, Nielsen, Patterson, Rosenberg, Štys and van Tol.

Voting against, Alonso-Zarazaga commented: 'this is a particular case of split prevailing usage among geographically separated zoologists, as Krell, Ballerio & Ziani (2004, p. 111) show. For those of us that believe in the Principle of Priority as the main rule governing nomenclature, there is no problem in doing a selection: *Odonteus* is one month older than *Bolboceras*. Štys & Král (2005, pp. 28–29) show us the way to follow the true spirit of the Code as our arbiter. It is regrettable that 'convenience' defence is still producing loss of time and efforts in nomenclatural affairs, while there is so much to be done for stability and universality in other areas. It is my opinion that the present Code should be emended in the next edition to reinforce priority versus 'convenience'; this is a blot in nomenclature since the *Règles* times. The Code of Botany allows 'reversal of priority' only under most strict circumstances, while our Code is too flexible and liable to be invoked for unimportant cases. If these lines of mine may merit a lecture, I would ask my zoologist colleagues to resort to 'priority reversal' only in cases where taxa of importance (e.g. medical, veterinary, conservation, etc.) are involved. Otherwise priority should be applied'. Similarly, Kerzhner also voted against 'both the original and alternative proposals' and commented: 'I do not consider that the plenary power should be used to give *Bolboceras* precedence over *Odonteus*. Both names are currently widely used and priority should apply. I do not consider that the plenary power should be used to set aside the valid type species designation by Curtis and to designate *Scarabaeus quadridens* as the type species, thus shifting the name *Bolboceras* to a further concept for which a generic name (*Indobolbus*) was established long ago and used in some important works (a Google search gives 16 references). If priority had been applied, *Scarabaeus mobilicornis* Fabricius, 1775 (junior synonym of *Scarabaeus armiger* Scopoli, 1772) would be the type species of *Odonteus* by monotypy and of *Bolboceras* by subsequent designation (Curtis, 1829) making *Bolboceras* a junior objective

synonym of *Odonteus*. This fact does not prevent further use of family-group names based on *Bolboceras* (see Code, Article 40.1)'. Voting against, Ng commented: 'this is a complex case and I vote to maintain the synonymy established by Krell (1990) even though this has clearly upset the general understanding and will still cause some 'pain' now. But the fact is, both names share the same type species and are synonyms. Also, it is now 15 years since Krell's paper was published and taxonomists would have learnt to adapt to a changing world. I also note that the genus (whatever name being used) contains only less than a dozen species and thus cannot create too many problems. As such, since the change has been made, and *Odonteus* Samouelle, 1819 is a senior synonym of *Bolboceras* Kirby, 1819, I prefer to let it stand and request that taxonomists adapt to this change'. Also voting against, van Tol commented: 'to avoid future discussion, I prefer to have a ruling for the type species of *Bolboceras* Kirby (as in (3) of the alternative proposal)'.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Bolboceras Kirby, 1819, *Transactions of the Linnean Society of London*, **12**(2): 459.

Odonteus Samouelle, 1819, *The entomologist's useful compendium; or an introduction to the knowledge of British insects . . .*, p. 189.

quadridens, *Scarabaeus*, Fabricius, 1781, *Systema entomologiae, sistens insectorum classes, ordines, genera, species, adiectis synonymis, locis, descriptionibus, observationibus*, p. 11.

The following is the reference for the designation of the lectotype of *Scarabaeus quadridens* Fabricius, 1781:

Krell, F-T., Ziani, S. & Ballerio, A. 2003. *Bulletin of Zoological Nomenclature*, **60**: 306.

OPINION 2139 (Case 3264)**STAPHYLINIDAE Latreille, 1804 (Insecta, Coleoptera): ten specific names conserved**

Abstract. The Commission has ruled that ten specific names threatened by six senior primary homonyms, three senior secondary homonyms, and one senior synonym are conserved for rove beetles (family STAPHYLINIDAE).

Keywords. Nomenclature; taxonomy; Coleoptera; STAPHYLINIDAE; rove beetles.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) the following names are not invalid by reason of being junior homonyms:
 - (i) *badium* Cameron, 1924, as published in the binomen *Lathrobium badium*;
 - (ii) *bicolor* Erichson, 1840, as published in the binomen *Lathrobium bicolor*;
 - (iii) *dimidiatus* Wollaston, 1864, as published in the binomen *Sunius dimidiatus*;
 - (iv) *filum* Aubé, 1850, as published in the binomen *Sunius filum*;
 - (v) *fulvipes* Adachi, 1955, as published in the binomen *Lathrobium fulvipes*;
 - (vi) *pallipes* Sharp, 1889, as published in the binomen *Lathrobium pallipes*;
 - (vii) *rutilipennis* Reitter, 1909, as published in the binomen *Astenus rutilipennis*;
 - (viii) *tenuis* Fagel, 1963, as published in the binomen *Pinophilus tenuis*;
 - (ix) *unicolor* Mulsant & Rey, 1878, as published in the binomen *Sunius unicolor*;
 - (b) the name *limnophilus* Erichson, 1840, as published in the binomen *Paederus limnophilus*, is given precedence over the specific name of *Paederus limophilus* Heer, 1839, whenever the two are considered to be synonyms.
- (2) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *badium* Cameron, 1924, as published in the binomen *Lobrathium badium*;
 - (b) *badium* Gravenhorst, 1802, as published in the binomen *Lathrobium badium*;
 - (c) *bicolor* Erichson, 1840, as published in the binomen *Lathrobium bicolor*;
 - (d) *bicolor* Gravenhorst, 1802, as published in the binomen *Lathrobium bicolor*;
 - (e) *dimidiatus* Stephens, 1833, as published in the binomen *Sunius dimidiatus*;
 - (f) *dimidiatus* Wollaston, 1864, as published in the binomen *Sunius dimidiatus*;

- (g) *filum* Aubé, 1850, as published in the binomen *Sunius filum*;
- (h) *filum* Walth, 1838, as published in the binomen *Paederus filum*;
- (i) *fulvipes* Adachi, 1955, as published in the binomen *Lathrobium fulvipes*;
- (j) *fulvipes* Blanchard, 1842, as published in the binomen *Lathrobium fulvipes*;
- (k) *limnophilus* Erichson, 1840 as published in the binomen *Paederus limnophilus*, with the endorsement that it is to be given precedence over *limophilus* Heer, 1839, as published in the binomen *Paederus limophilus*, whenever the two are considered to be synonyms, as ruled in (1)(b) above;
- (l) *limophilus* Heer, 1839, as published in the binomen *Paederus limophilus* with the endorsement that it is not to be given priority over *limnophilus* Erichson, 1840 as published in the binomen *Paederus limnophilus*, whenever the two are considered to be synonyms, as ruled in (1)(b) above;
- (m) *pallipes* Gravenhorst, 1802, as published in the binomen *Lathrobium pallipes*;
- (n) *pallipes* Sharp, 1889, as published in the binomen *Lathrobium pallipes*;
- (o) *rutilipennis* Chevrolat, 1860, as published in the binomen *Astenus rutilipennis*;
- (p) *rutilipennis* Reitter, 1909, as published in the binomen *Astenus rutilipennis*;
- (q) *tenuis* Fagel, 1963, as published in the binomen *Pinophilus tenuis*;
- (r) *tenuis* Sharp, 1876, as published in the binomen *Pinophilus tenuis*;
- (s) *unicolor* Mulsant & Rey, 1878, as published in the binomen *Sunius unicolor* (nomen protectum under Article 23.9.2).

History of Case 3264

An application to conserve ten specific names of rove beetles in the family STAPHYLINIDAE Latreille, 1804 (Insecta, Coleoptera) was received from Lee H. Herman (*American Museum of Natural History, New York, NY, U.S.A.*) on 14 January 2003.

After correspondence the case was published in BZN 61: 83–89 (June 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN 61: 84. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 17: Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Rosenberg, Song, Štys and van Tol.

Kerzhner voted for (2)(a), Table 1 names 4–9.

Negative vote – 1: Alonso-Zarazaga.

Kerzhner voted against (1)(a) Table 1 names 1–3 and (1)(b), (2)(b)-(d).

Patterson abstained.

No vote was received from Ng.

Voting against, Alonso-Zarazaga commented that each problem should be considered separately. In voting against some of the proposals, Kerzhner commented

that for the name *Paederus limnophilus* Erichson he was voting against conservation not of the name, but of the authorship and date. He further suggested that a balance should be found between use of the Code provisions and of the plenary power; the latter should be used only in the most important cases.

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

- (a) *badium*, *Lathrobium*, Cameron, 1924, *Transactions of the Entomological Society of London*, **1924**: 193.
- (b) *badium*, *Lathrobium*, Gravenhorst, 1802, *Coleoptera Microptera Brunsvicensia*, p. 53.
- (c) *bicolor*, *Lathrobium*, Erichson, 1840, *Genera et species Staphylinorum insectorum coleopterorum familiae*, pt. 2, p. 593.
- (d) *bicolor*, *Lathrobium*, Gravenhorst, 1802, *Coleoptera Microptera Brunsvicensia*, p. 179.
- (e) *dimidiatus*, *Sunius*, Stephens, 1833, *Illustrations of British entomology . . . Mandibulata*, vol. 5, p. 277.
- (f) *dimidiatus*, *Sunius*, Wollaston, 1864. *Catalogue of the coleopterous insects of the Canaries in the collection of the British Museum*, p. 591.
- (g) *filum*, *Sunius*, Aubé, 1850. *Annales de la Société Entomologique de France*, (2)**8**: 317.
- (h) *filum*, *Paederus*, Waltl, 1838, *Isis, encyclopädische Zeitschrift, vorzüglich für Naturgeschichte, vergleichende Anatomie und Physiologie*, column 267.
- (i) *fulvipes*, *Lathrobium*, Adachi, 1955. *Journal of the Tokyo University*, **7**: 30.
- (j) *fulvipes*, *Lathrobium*, Blanchard, 1842. *Voyage dans l'Amérique méridionale . . . par Alcide d'Orbigny . . . Insectes Coléoptères*, vol. 6, pt. 2, p. 85.
- (k) *limnophilus*, *Paederus*, Erichson, 1840, *Genera et species Staphylinorum insectorum coleopterorum familiae*, pt. 2, p. 653.
- (l) *limophilus*, *Paederus*, Heer, 1839, *Fauna Coleopterorum Helvetica*, vol. 1, pt. 2, p. 235.
- (m) *pallipes*, *Lathrobium*, Gravenhorst, 1802, *Coleoptera Microptera Brunsvicensia*, p. 179.
- (n) *pallipes*, *Lathrobium*, Sharp, 1889, *Annals and Magazine of Natural History*, (6)**3**: 257.
- (o) *rutilipennis*, *Astenus*, Chevrolat, 1860, *Revue et Magazin de Zoologie*, (2)**12**: 410.
- (p) *rutilipennis*, *Astenus*, Reitter, 1909, *Fauna Germanica. Die Käfer des Deutschen Reiches. Nach der analytischen Methode bearbeitet*, vol. 2, p.151.
- (q) *tenuis*, *Pinophilus*, Fagel, 1963, *Exploration du Parc National de la Garamba. Mission H. de Saeger*, **37**: 216.
- (r) *tenuis*, *Pinophilus*, Sharp, 1876, *Transactions of the Entomological Society of London*, **1876**: 323.
- (s) *unicolor*, *Sunius*, Mulsant & Rey, 1878, *Annales de la Société Linnéenne de Lyon*, (n. ser.)**24**(1877): 276.

The following names are listed with reference to their status:

- unicolor* Curtis, 1840, *Annals of Natural History*, **5**: 277, as published in the binomen *Sunius unicolor* (nomen oblitum under Article 23.9.2).
- unicolor* Stephens, 1839. *A manual of British Coleoptera, or beetles*, p. 407, as published in the binomen *Sunius unicolor* (nomen oblitum under Article 23.9.2).

OPINION 2140 (Case 3275)***Metromenus* Sharp, 1884 (Insecta, Coleoptera): usage conserved by designation of *Dyscolus palmae* Blackburn, 1877 as the type species**

Abstract. The Commission has ruled that the usage of the name *Metromenus* Sharp, 1884 is conserved for a group of ground beetles (CARABIDAE) by validating Lorenz's (1998) designation of *Dyscolus palmae* Blackburn, 1877 (currently *Blackburnia palmae*) as the type species.

Keywords. Nomenclature; taxonomy; Coleoptera; CARABIDAE; *Blackburnia*; *Metromenus*; *Anchomenus mysticus*; *Metromenus palmae*; Hawaii; ground beetles.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Metromenus* Sharp, 1884 before the designation of *Dyscolus palmae* Blackburn, 1877 by Lorenz (1998) are hereby set aside.
- (2) The name *Metromenus* Sharp, 1884 (gender: masculine), type species by subsequent designation by Lorenz (1998) *Dyscolus palmae* Blackburn, 1877, as ruled in (1) above, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *palmae* Blackburn, 1877, as published in the binomen *Dyscolus palmae* (specific name of the type species of *Metromenus* Sharp, 1884), is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3275

An application to conserve the usage of the name *Metromenus* Sharp, 1884 for a group of ground beetles (CARABIDAE) by validating Lorenz's (1998) designation of *Dyscolus palmae* Blackburn, 1877 (currently *Blackburnia palmae*) as the type species was received from James K. Liebherr (*Department of Entomology, Cornell University, Ithaca, NY, U.S.A.*), Gordon M. Nishida (*Hawaii Biological Survey, B.P. Bishop Museum, Honolulu, HI, U.S.A.*), Elwood C. Zimmerman (*Tura Beach, N.S.W., Australia*) and Yves Bousquet (*Eastern Cereal and Oilseed Research Centre, Ottawa, Ontario, Canada*) on 10 March 2003. After correspondence the case was published in *BZN* 61: 90–91 (June 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in *BZN* 61: 91. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 17: Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Song and van Tol.

Negative votes – 3: Alonso-Zarazaga, Lamas and Štys.

No vote was received from Ng.

Voting against, Alonso-Zarazaga commented that 'this application fails to propose what to do with *Anchomenus mysticus* Blackburn, 1877 and *Mysticomenus* Sharp, 1903, two names involved in the resolution of this case, which should have been requested to be placed on the Lists'. Also voting against, Štys commented that 'the pertinent facts provided by the authors of the application call for employment of the Principle of Priority. The authors do not provide any evidence that the names involved are of general importance and are widely used'.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

Metromenus Sharp, 1884, *Entomologist's Monthly Magazine*, **20**: 217.

palmae, *Dyscolus*, Blackburn, 1877, *Entomologist's Monthly Magazine*, **14**: 147.

The following is the reference for the designation of *Dyscolus palmae* Blackburn, 1877 as the type species of the nominal genus *Metromenus* Sharp, 1884:

Lorenz, W. 1998. *Nomina Carabidarum, a directory of the scientific names of ground beetles*, p. 116.

OPINION 2141 (Case 3293)***Nicrophorus olidus* Matthews, 1888 (Insecta, Coleoptera): given precedence over *Nicrophorus quadricollis* Gistel, 1848**

Abstract. The Commission has given precedence to the widely used name *Nicrophorus olidus* Matthews, 1888 for a species of burying beetle (family SILPHIDAE) over the little used name *Nicrophorus quadricollis* Gistel, 1848 whenever the two names are considered to be synonyms.

Keywords. Nomenclature; taxonomy; Coleoptera; SILPHIDAE; NICROPHORINAE; *Nicrophorus olidus*; *Nicrophorus quadricollis*; burying beetles; Nearctic.

Ruling

- (1) Under the plenary power it is hereby ruled that the name *olidus* Matthews, 1888, as published in the binomen *Nicrophorus olidus*, is given precedence over the name *quadricollis* Gistel, 1848, as published in the binomen *Nicrophorus quadricollis*, whenever the two are considered to be synonyms.
- (2) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *olidus* Matthews, 1888, as published in the binomen *Nicrophorus olidus*, with the endorsement that it is to be given precedence over the name *quadricollis* Gistel, 1848, as published in the binomen *Nicrophorus quadricollis*, whenever the two are considered to be synonyms;
 - (b) *quadricollis* Gistel, 1848, as published in the binomen *Nicrophorus quadricollis*, with the endorsement that it is not to be given priority over the name *olidus* Matthews, 1888, as published in the binomen *Nicrophorus olidus*, whenever the two are considered to be synonyms.

History of Case 3293

An application to give precedence to the widely used name *Nicrophorus olidus* Matthews, 1888 for a species of burying beetle (family SILPHIDAE) over the little used name *Nicrophorus quadricollis* Gistel, 1848 was received from D.S. Sikes (*Department of Biological Sciences, University of Calgary, Calgary, Alberta, Canada*) and S.T. Trumbo (*Department of Ecology and Evolutionary Biology, University of Connecticut, Storrs, Connecticut, U.S.A.*) on 20 May 2003. After correspondence the case was published in BZN **61**: 95–97 (June 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN **61**: 96. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 19: Alonso-Zarazaga, Bock, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative vote – 1: Bouchet.

No vote was received from Ng.

Voting for, Štys commented that ‘the generally low quality of Gistel’s work is not an argument for rejection of his nominal taxa summarily. The authors (para. 3) clearly state that the description of *Nicrophorus quadricollis* Gistel, 1848 “matches the diagnostic characteristics of . . . *Nicrophorus olidus* Matthews . . .”. Why not establish a neotype for *N. quadricollis* and follow priority? I fail to see any “destabilization” of nomenclature’.

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

quadricollis, *Nicrophorus*, Gistel, 1848, *Naturgeschichte des Thierreichs für höhere Schulen*, p. 190.

olidus, *Nicrophorus*, Matthews, 1888, *Biologia Centrali-Americana. Insecta. Coleoptera*, vol. 2, pt. 1. *Fam. Silphidae*, p. 92.

OPINION 2142 (Case 3251)***Thereva* Latreille, 1797 and *Phasia* Latreille, 1804 (Insecta, Diptera): usage conserved by the designation of *Musca plebeja* Linnaeus, 1758 as the type species of *Thereva***

Abstract. The Commission has ruled that usage of the names *Thereva* Latreille, 1797 for a cosmopolitan genus of stiletto flies (family THEREVIDAE) and *Phasia* Latreille, 1804 (PHASIINAE) for a group of tachinid flies (family TACHINIDAE), some of which are economically important as parasites of plant bugs (Heteroptera), are conserved by the designation of *Musca plebeja* Linnaeus, 1758 as the type species of the genus *Thereva*.

Keywords. Nomenclature; taxonomy; Diptera; THEREVIDAE; TACHINIDAE; *Thereva*; *Phasia*; *Thereva plebeja*; stiletto flies; tachinids.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Thereva* Latreille, 1797 are set aside and *Musca plebeja* Linnaeus, 1758 is designated as the type species.
- (2) The name *Thereva* Latreille, 1797 (gender: feminine), type species by designation in (1) above *Musca plebeja* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *plebeja* Linnaeus, 1758, as published in the binomen *Musca plebeja* (specific name of the type species of *Thereva* Latreille, 1797), is hereby placed on the Official List of Specific Names in Zoology.
- (4) The name *Thereva* Fabricius, 1798 (a junior homonym of *Thereva* Latreille, 1797) is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology.

History of Case 3251

An application to conserve the usage of the names *Thereva* Latreille, 1797 for a cosmopolitan genus of stiletto flies (family THEREVIDAE) and *Phasia* Latreille, 1804 (PHASIINAE) for a group of tachinid flies (family TACHINIDAE) by the designation of *Musca plebeja* Linnaeus, 1758 as the type species of the genus *Thereva* was received from Kevin C. Holston (*Department of Entomology, University of Illinois, Urbana, IL, U.S.A.*), Michael E. Irwin (*Department of Natural Resources and Environmental Sciences, University of Illinois, Urbana, IL, U.S.A.*) and F. Christian Thompson (*Systematic Entomology Laboratory, PSI, BARC, ARS, USDA, c/o Smithsonian Institution, Washington, D.C., U.S.A.*) on 23 July 2002. After correspondence the case was published in BZN 60: 198–202 (September 2003). The title, abstract and keywords of the case were published on the Commission's website. A comment opposing the application was published in BZN 61: 254–255.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN **60**: 201. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 18: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Minelli, Ng, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes – 3: Mawatari, Nielsen and Song.

Voting for, Alonso-Zarazaga commented: 'I consider that there is no need for the Commission to use its plenary power for the designation of a type species for *Thereva* Latreille, 1797, since there is already a subsequent designation of *Musca plebeja* Linnaeus, 1758 by Latreille (1810, p. 421) as stated in para. 5 of the original application. The plenary power should be used only when there is a real need of it, otherwise we impair its significance. On the other hand, I consider that the problem of Fabrician altered usages of generic names proposed by other authors under the principle of his authority (the 'Prince of Entomology') should be addressed by the Commission once and for all. Considering them available junior homonyms could be the best procedure, in my opinion'.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

plebeja, *Musca*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 589.

Thereva Latreille, 1797, *Précis des caractères génériques des insectes, déposés dans un ordre naturel par le Citoyen Latreille*, p. 168.

Thereva Fabricius, 1798, *Supplementum entomologiae systematicae*, p. 549.

OPINION 2143 (Case 3306)***Drosophila elegans* Bock & Wheeler, 1972 (Insecta, Diptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Drosophila elegans* Bock & Wheeler, 1972 is conserved for a species of fruit fly by suppression of its unused senior homonym *Drosophila elegans* Statz, 1940.

Keywords. Nomenclature; taxonomy; Diptera; *Drosophila*; *Drosophila elegans*; *Drosophila statzi*; fruit flies; phylogenetic studies.

Ruling

- (1) Under the plenary power it is hereby ruled that the specific name *elegans* Statz, 1940, as published in the binomen *Drosophila elegans*, is suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy.
- (2) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *elegans* Bock & Wheeler, 1972, as published in the binomen *Drosophila elegans*;
 - (b) *statzi* Ashburner & Bächli, 2004, as published in the binomen *Drosophila statzi* (replacement name for *Drosophila elegans* Statz, 1940).
- (3) The name *elegans* Statz, 1940, as published in the binomen *Drosophila elegans* and suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3306

An application to conserve the specific name *Drosophila elegans* Bock & Wheeler, 1972, for a species of fruit fly important in phylogenetic studies, by suppression of an unused senior homonym *Drosophila elegans* Statz, 1940 and establishment of the substitute name *Drosophila statzi*, was received from Michael Ashburner (*Genetics Department, University of Cambridge, Cambridge, U.K.*) and Gerhard Bächli (*Zoologisches Museum, Universität Zürich-Irchel, Zürich, Switzerland*) on 29 October 2003. After correspondence the case was published in **BZN 61**: 165–166 (September 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in **BZN 61**: 166. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 18: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Macpherson, Mahnert, Mawatari, Minelli, Ng, Nielsen, Papp, Rosenberg, Song and Štys.

Negative votes – 3: Lamas, Patterson and van Tol.

Voting against, Lamas commented: 'I believe that stability of nomenclature would be better served by partially suppressing the name *Drosophila elegans* Statz, 1940 for the purposes of the Principle of Homonymy, but not for those of the Principle of Priority, and thus conserving the name *Drosophila elegans* Bock & Wheeler, 1972. In other words, by stating that *Drosophila elegans* Statz, 1940 and *Drosophila elegans* Bock & Wheeler, 1972 are not to be regarded as primary homonyms, there is no need to propose a replacement name either for *D. elegans* Statz, 1940 or *D. elegans* Bock & Wheeler, 1972. Furthermore, I find it disturbing that the replacement name *Drosophila statzi*, proposed by Ashburner & Bächli in their application, was allowed to appear in print before the Commission voted in this case'. Also voting against, van Tol commented: 'A new name for the recently described *D. elegans* Bock & Wheeler will not cause confusion'.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

elegans, *Drosophila*, Bock & Wheeler, 1972, *The Drosophila melanogaster species group*, p. 28.

elegans, *Drosophila*, Statz, 1940, *Palaeontographica*, **91A**: 152.

statzi, *Drosophila*, Ashburner & Bächli, 2004, *Bulletin of Zoological Nomenclature*, **61**: 166.

OPINION 2144 (Case 3282)***Thecla azia* Hewitson, 1873 (Insecta, Lepidoptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Thecla azia* Hewitson, 1873 (currently *Ministrymon azia*) is conserved for a common and widespread New World species of lycaenid butterfly by suppression of the senior synonym *Thecla guacanagari* Wallengren, 1860.

Keywords. Nomenclature; taxonomy; Lepidoptera; LYCAENIDAE; THECLINAE; *Ministrymon azia*; legume feeder; hairstreak butterfly.

Ruling

- (1) Under the plenary power it is ruled that the name *guacanagari* Wallengren, 1860, as published in the binomen *Thecla guacanagari*, is hereby suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) The name *azia* Hewitson, 1873, as published in the binomen *Thecla azia*, is hereby placed on the Official List of Specific Names in Zoology.
- (3) The name *guacanagari* Wallengren, 1860, as published in the binomen *Thecla guacanagari* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3282

An application to conserve the specific name *Thecla azia* Hewitson, 1873 (currently *Ministrymon azia*) for a common and widespread New World species of lycaenid butterfly was received from Robert K. Robbins (*Smithsonian Institution, National Museum of Natural History, Washington, DC, U.S.A.*) and Gerardo Lamas (*Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima, Peru*) on 22 April 2003. After correspondence the case was published in *BZN* **61**: 98–99 (June 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in *BZN* **61**: 98–99. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 18: Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative vote – 1: Alonso-Zarazaga.

Lamas abstained.

No vote was received from Ng.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

azia, *Thecla*, Hewitson, 1873, *Illustrations of diurnal Lepidoptera. Part I. Lycaenidae*, vol. 5, p. 144.

guacanagari, *Thecla*, Wallengren, 1860, *Wiener Entomologische Monatschrift*, **4**(2): 37.

OPINION 2145 (Case 3255)***Macropodus spechti* Schreitmüller, 1936 (Osteichthyes, Perciformes):
priority maintained**

Abstract. The Commission has ruled that priority is maintained for *Macropodus spechti* Schreitmüller, 1936, the specific name of the Black Paradise Fish (family OSPHRONEMIDAE). A proposal to conserve the specific name of its junior objective synonym *Macropodus concolor* Ahl, 1937 was not approved.

Keywords. Nomenclature; taxonomy; OSPHRONEMIDAE; *Macropodus concolor*; *Macropodus spechti*; Black Paradise Fish; Southeast Asia.

Ruling

- (1) It is hereby ruled that priority is maintained for *Macropodus spechti* Schreitmüller, 1936.
- (2) The name *spechti* Schreitmüller, 1936, as published in the binomen *Macropodus spechti*, is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3255

An application to conserve the specific name of *Macropodus concolor* Ahl, 1937, for the Black Paradise Fish, (family OSPHRONEMIDAE), by suppression of the senior objective synonym *Macropodus spechti* Schreitmüller, 1936, was received from Ingo Schindler (*Warthestr. 53a, Berlin, Germany*) and Wolfgang Staeck (*Auf dem Grat 41a, Berlin, Germany*) on 26 September 2002. After correspondence the case was published in BZN **60**: 206–207 (September 2003). The title, abstract and keywords of the case were published on the Commission's website. Comments in support of the application were published in BZN **60**: 220–221 and BZN **61**: 173. Comments opposing the application were published in BZN **61**: 114–116, to which the authors reply was published in BZN **61**: 256–257. Additional comments opposing the application were published in BZN **61**: 173–174 and BZN **62**: 87–89.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN **60**: 207. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 6: Bock, Bouchet, Fortey, Mahnert, Nielsen and Papp.

Negative votes – 15: Alonso-Zarazaga, Brothers, Calder, Halliday, Kerzhner, Lamas, Macpherson, Mawatari, Minelli, Ng, Patterson, Rosenberg, Song, Štys and van Tol.

Voting against, Ng commented: 'I must argue that while the proponents have a sort of case, the fact is that the older name, *spechti*, is now being used by a fair number of practising ichthyologists and even aquarists after the fact that it was a senior synonym was published. As such, to reverse now and support its suppression

makes very little sense, especially considering how unstable the taxonomy of this genus and its allies are. I know this fish, and as far as I am concerned, the need to change its name is not a problem. That is what the Code was designed to do. The fact that the fish has minimal if no economic, medical or otherwise major scientific significance also makes me vote against keeping a junior name like *concolor*'.

Original references

The following is the original reference to the name placed on an Official List by the ruling given in the present Opinion:

spechti, *Macropodus*, Schreitmüller, 1936, *Das Aquarium*, **10**: 181.

OPINION 2146 (Case 3266)***Palaeortyx phasianoides* Milne-Edwards, 1869 (Aves, Galliformes):
usage of the specific name conserved by the designation of a neotype**

Abstract. The Commission has ruled that the current usage of the name *Palaeortyx phasianoides* Milne-Edwards, 1869 is conserved for a species of fossil quail from the Miocene (family PHASIANIDAE) by the designation of a neotype.

Keywords. Nomenclature; taxonomy; Aves; Galliformes; PHASIANIDAE; *Palaeortyx phasianoides*; quails; Miocene; Europe.

Ruling

- (1) Under the plenary power it is ruled that all previous type fixations for the nominal species *Palaeortyx phasianoides* Milne-Edwards, 1869 are hereby set aside and the scapula from Saint-Gérand-le-Puy, France (specimen no. MNHN Av 2895 in the Muséum National d'Histoire Naturelle, Paris) is designated as the neotype.
- (2) The name *phasianoides* Milne-Edwards, 1869, as published in the binomen *Palaeortyx phasianoides* and as defined by the neotype designated in (1) above, is hereby placed on the Official List of Specific Names in Zoology.

History of Case 3266

An application to conserve the current usage of the name *Palaeortyx phasianoides* Milne-Edwards, 1869 for a species of fossil quail from the Miocene (family PHASIANIDAE) by the designation of a neotype was received from U.B. Göhlich (*Department für Umwelt- und Geowissenschaften, Sektion Paläontologie, Munich, Germany*) and C. Mourer-Chauviré (*Université Claude Bernard Lyon 1, Centre des Sciences de la Terre, Villeurbanne Cedex, France*) on 1 February 2003. After correspondence the case was published in BZN 60: 211–214 (September 2003). The title, abstract and keywords of the case were published on the Commission's website. Comments in support of the application were published in BZN 61: 117, 176. One comment opposing the application was published in BZN 61: 117–119, to which the authors' reply was published in BZN 61: 174–176.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in BZN 60: 213. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes – 15: Bock, Bouchet, Brothers, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Rosenberg and Song.

Negative votes – 4: Alonso-Zarazaga, Patterson, Štys and van Tol.

Calder abstained.

No vote was received from Ng.

Voting against, Alonso-Zarazaga commented: 'if the authors of the application are so sure of their identification of the problematic lectotype, why do they not apply priority and ask instead for a neotype designation whose only visible result is the conservation of the very recent name *Ameripodius alexis* Mourer-Chauviré, 2000? I therefore consider that the lectotype designation must stand, with all its consequences. The zoological group is important only for a few palaeontologists who can assume easily the nomenclatural changes'.

Original references

The following is the original reference to the name placed on an Official List by the ruling given in the present Opinion:

phasianoides, *Palaeortyx*, Milne-Edwards, 1869, *Recherches anatomiques et paléontologiques pour servir à l'histoire des oiseaux fossiles de la France*, vol. 2, p. 237.

Proposed conservation of usage of *Dactylozodes* Chevrolat, 1838 and *D. (Parazodes)* Cobos, 1959 (Insecta, Coleoptera) by designation of *Stigmoderma conjuncta* Chevrolat, 1838 as the type species of *Dactylozodes*: case closed
(Case 3308; see BZN 61: 2)

C.L. Bellamy (*Plant Pest Diagnostics Branch, California Department of Food & Agriculture, Sacramento, CA 95832, U.S.A.*) and T. Moore Rodriguez (*El Vergel 2245, Depto. 28-D, Santiago, Chile*) submitted a proposal to conserve usage of the names *Dactylozodes* Chevrolat, 1838 and *D. (Parazodes)* Cobos, 1959 for two groups of jewel beetles (BUPRESTIDAE) by designation of *Stigmoderma conjuncta* Chevrolat, 1838 as the type species of *Dactylozodes*. Issues presented in the case are under revision and the authors have withdrawn the application. The case is now closed.

**Proposed conservation of the specific name by retention of the neotype of
Glossophaga morenoi Martínez & Villa, 1938 (Mammalia, Chiroptera): case closed**
(Case 3318; see BZN 61: 134)

Sergio Ticul Álvarez-Castañeda and Alejandro M. Maeda-Martínez (*Centro de Investigaciones Biológicas del Noroeste, La Paz, Baja California Sur 23090, México*) submitted a proposal to conserve the specific name of *Glossophaga morenoi* Martínez & Villa, 1938 for the murciélago siricotero (Moreno's Nectar Bat) (family PHYLLOSTOMIDAE) by retention of the neotype. The neotype retains its status in the absence of original type material under Article 75.8 of the Code. The case is now closed.

INFORMATION AND INSTRUCTIONS FOR AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Applications should be prepared in the format of recent parts of the *Bulletin*; manuscripts not prepared in accordance with these guidelines may be returned.

General. Applications are requests to the Commission to set aside or modify the Code's provisions as they relate to a particular name or group of names when this appears to be in the interest of stability of nomenclature. Authors submitting cases should regard themselves as acting on behalf of the zoological community and the Commission will treat all applications on this basis. Applicants should discuss their cases with other workers in the same field before submitting applications, so that they are aware of any wider implications and the likely reactions of other zoologists.

Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals to the Commission. Text references should give dates and pages in parentheses, e.g. 'Daudin (1800, p. 49) described . . .'. The Abstract will be prepared by the Commission's Secretariat.

References. These should be given for all authors cited. Where possible, ten or more reasonably recent references should be given illustrating the usage of names which are to be conserved or given precedence over older names. The title of periodicals should be in full and in italics; numbers of volumes, parts, etc. should be in arabic figures, separated by a colon from page numbers. Book titles should be in italics and followed by the number of pages and plates, the publisher and place of publication. More detailed instructions on the preparation of references are given in *BZN* 59: 159–160.

Submission of Application. One copy should be sent to: Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in IBM PC compatible format, or the script sent via e-mail to 'iczn@nhm.ac.uk' within the message or as an attachment (disks and attachments to be in Word, rtf or ASCII text). It would also be helpful if applications were accompanied by photocopies of relevant pages of the main references where this is possible.

The Commission's Secretariat is very willing to advise on all aspects of the formulation of an application.

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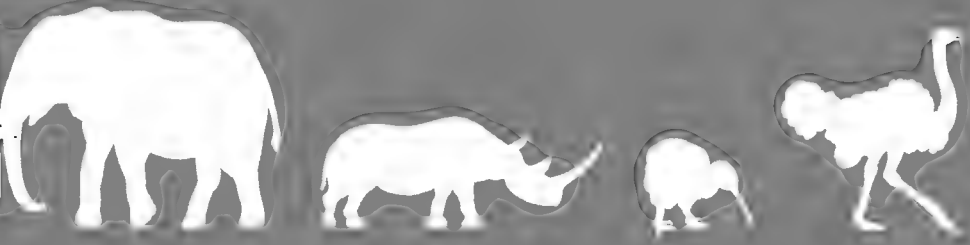
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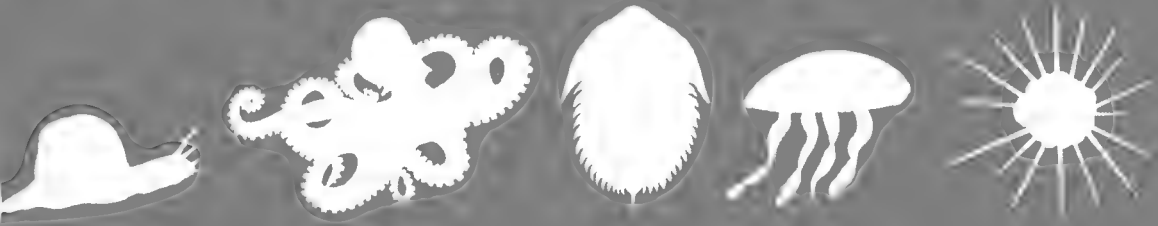
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The
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on Zoological Nomenclature



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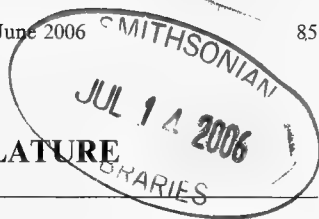
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**Notices**

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications. As far as it can, the Secretariat will check the main nomenclatural references in applications. Correspondence should be by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited.

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 63, part 1, 31 March 2006) went to press. Under Article 82 of the Code, existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3374: *Onthophagus sycophanta* Fairmaire, 1887 (Insecta, Coleoptera): proposed conservation of the specific name. F.-T. Krell.

CASE 3375: *Fidia* Baly, 1863 (Insecta, Coleoptera): proposed conservation of usage. S.M. Strother, V.M. Bayless & C.L. Staines.

CASE 3376: *Lithocolletis oxyacanthae* Frey, 1856 (currently *Phyllonorycter oxyacanthae*; Insecta, Lepidoptera): proposed precedence over *Lithocolletis pomonella* Zeller, 1846. P. Triberti.

CASE 3377: *Ataenius* Harold, 1867 (Insecta, Coleoptera): proposed precedence over *Aphodinus* Motschulsky, 1862. H.F. Howden & A. Smetana.

CASE 3378: *Phyllomorpha* Laporte, 1833 (Insecta, Heteroptera): proposed conservation of spelling and existing usage. I.M. Kerzhner.

CASE 3379: TUBULANIDAE Bürger, 1905 (1874) (Nemertea, Anopla): proposed correction of the original publication date from 1905 to 1904. H. Kajihara.

CASE 3380: *Streptopelia roseogrisea* Sundevall, 1857 (Aves, COLUMBIDAE): proposed conservation of usage of the specific name. T.M. Donegan.

CASE 3381: *Neobrachiella* Kabata, 1979 (Copepoda, Siphonostomatoida): proposed conservation. Z. Kabata.

The Code, Copyright and ZooBank – briefing the Science Press:
an informal workshop hosted by the Zoological Society of London,
Regent's Park, London, 1st March 2006

Andrew Polaszek, Executive Secretary, ICZN

A workshop to discuss the definition of publication under the present Code, and how it might be amended to accommodate publication that is solely web-based, was held at the Zoological Society of London. The workshop also included presentations and discussions of copyright issues for taxonomic descriptions, particularly with reference to the ZooBank initiative.

The agenda for the meeting was as follows:

10.00 Welcome: Georgina Mace, Zoological Society of London

10.05 Introduction: Earl of Cranbrook, Chairman, International Trust for Zoological Nomenclature

10.10 The Code, Copyright and ZooBank: Andrew Polaszek, Executive Secretary, International Commission on Zoological Nomenclature

10.30 ZooBank and the Taxonomic Renaissance: Quentin D. Wheeler, Keeper, Department of Entomology, Natural History Museum, London

10.40 Taxonomy and the Web – integrating the pieces: Chris Lyal, Natural History Museum, London & Anna Weitzman, Smithsonian Institution, Washington D.C.

10.50 ZooBank and Zoological Record – a partnership for success: Nigel J. Robinson, Thomson Zoological Ltd, York, U.K.

11.00 ZooBank and EDIT: Yde de Jong, University of Amsterdam, The Netherlands & Dave Roberts, Department of Zoology, Natural History Museum, London

11.10 Web publication: a publisher's perspective: Richard Steele, Taylor & Francis Journals Informa Academic Division, U.K.

11.20 Open-access publishing and copyright: Catriona MacCallum, Public Library of Science, Cambridge, U.K.

11.30 ZooTaxa – the first five years: Jeyaraney Kathirithamby, Department of Zoology, Oxford University, U.K.

11.40 Copyright, Biopiracy and the Taxonomic Impediment: Donat Agosti, American Museum of Natural History, New York

11.50 Lunch discussion

We thank all those who attended, especially the invited speakers, and we are most grateful to Georgina Mace and Linda DaVolls for hosting the meeting and organising the venue.

Summary presentations from the ZooBank Symposium: ESA Annual Meeting, Fort Lauderdale, Florida, 18 December 2005

Andrew Polaszek, *Executive Secretary, ICZN*

As announced in BZN 63(1): 6–7, a meeting to present and discuss the ZooBank registry and other aspects of animal nomenclature and taxonomy was held as a late-breaking symposium during the 2005 Annual Meeting of the Entomological Society of America. The meeting was arranged as a series of six presentations, preceded by an introduction from Frank Krell, organiser of the symposium, and followed by a panel discussion.

PowerPoint presentations are available on the ICZN website at: www.iczn.org/Fort_Lauderdale_ZB_Symposium and summaries of the presentations are given below.

ZooBank: ICZN's open-access web-based register of all new animal names and original descriptions

Andrew Polaszek (*Executive Secretary, ICZN, London, U.K.*)

Why do we need ZooBank?

Descriptions of new animal species and associated nomenclatural acts are currently 'hidden' in thousands of specialised journals and other publications such as monographs and CDs. This process greatly reduces the 'visibility' of animal names and nomenclatural acts. Establishing ZooBank as a mandatory register of these names will largely alleviate this problem. Not only will animal taxonomic data be freely available, but also an alerting-service targeting taxa of interest to particular user groups will be provided. Completeness of the animal species register will be achieved by having registration of new names as an ICZN requirement for availability, along with retrospective registration of existing names.

With Code-compliance built into the registration process, an opportunity to introduce unprecedented stability into zoological nomenclature is being provided. The ZooBank interface will provide automatic checking for Code-compliance, and thus prevent new homonymy, stabilise spellings, fix genders and stems, and provide stability in gender agreement. As well as increased stability, the ZooBank register will provide an opportunity for increased quality control in animal nomenclature. Current issues such as the presence or absence of type specimens, accepted categories of type depositories, the use of offensive names, auctioning of names and other ethical issues, can be dealt with by amendments to the present Code. ZooBank will enable the tracking of names and hence facilitate the correction of many problems prior to publication and name availability.

As animal taxonomy moves away from its traditional journal or monograph base towards the internet, the role of a mandatory register increases in importance. Without such a register, web taxonomy would rapidly become unmanageable, and thus ZooBank will facilitate 'true' web taxonomy – i.e. taxonomy that exists only on the internet. If web taxonomy is to become a reality, however, an effective and fair peer-review system still needs to be developed.

A possible additional benefit of ZooBank would be universal availability of descriptions. Making the inclusion of original descriptions mandatory would be very difficult to achieve, partly for reasons of current copyright laws. However, ZooBank will provide a voluntary field for original descriptions (e.g. in pdf format), with no limit on numbers of illustrations. The advantages to both authors and publishers of having these descriptions freely available, with links to the original papers, will rapidly become apparent. Several prominent life sciences publishers have already agreed to make such information available to ZooBank. The nature of ZooBank as an (eventually) mandatory name register clearly separates it from other databasing initiatives such as Species 2000, ITIS, uBIO, Zoological Record / ION and ECAT.

How will ZooBank work?

Authors or third parties will be provided with the ZooBank online registration form for the submission of registration information. The usual taxonomic fields will be included, with additional fields for Code-compliance, type depositories, gender, stem, type locality details (optional) and, as discussed above, the description and figures (optional). Registration can be both pre- and post-publication, and either primary (by the author(s)) or third-party. Registration will be based on the GUID/DOI (Globally Unique Identifier/Digital Object Identifier) system. Development of GUIDs for ZooBank will be undertaken in close cooperation with GBIF (the Global Biodiversity Information Facility) and TDWG (the Taxonomic Databases Working Group). Assigning GUIDs to animal names and taxonomic acts will have several parallels with the assignment of accession numbers to gene sequences in GenBank. Also, as with GenBank, journal editors and publishers will require authors to register new taxa and nomenclatural acts with ZooBank. As discussed above, publishers will be encouraged to allow the inclusion in ZooBank of descriptive/nomenclatural sections of published work.

During the pre-publication phase there will be a holding period during which as yet unavailable names are not openly accessible. Code-compliance checks are built into the registration process, and registration will remain free to all users. ZooBank will be kick-started by making *Zoological Record's* Index of Organism Names data available via a ZooBank portal in mid-2006. Following this, an initial prototype/proof of concept will be made available as a voluntary system for a period of nine months to monitor its uptake.

Will ZooBank be accepted?

A registration system for plants was introduced into the Botanical Code at the time of the Tokyo Botanical Congress (1993) but was not ratified at the following St Louis Congress (1999), although a voluntary registration system ran for several years. Several reasons have been put forward to explain why plant and fungal taxonomists failed to adopt mandatory registration. Firstly, botanists have far fewer names to deal with, about one tenth, compared with zoologists. Secondly, there is already a very effective universal checklist of plant names in the form of the International Plant Name Index (IPNI). Finally, a section of the botanical community was unhappy about the way in which the registration clause had been introduced into the Tokyo Code. For bacteria, a mandatory registration system has been in place since 1980. Bacterial names are considered to be validly published only if published in the

International Journal of Systematic and Evolutionary Microbiology (formerly *International Journal of Systematic Bacteriology*). Mycologists have recently introduced MycoBank, a voluntary registration system.

In order to gauge acceptance by the zoological community, a dedicated discussion list for ZooBank has been established at <http://list.afriherp.org/mailman/listinfo/zooBank-list>. It has been suggested that mandatory registration of organismal names is authoritarian, and/or imperialistic, as well as requiring extra work for taxonomists. For this reason, the development and implementation of ZooBank need to be done in as user-friendly a manner as possible, and registration needs to be made straightforward. We need to be able to demonstrate that the benefits of ZooBank far outweigh any additional effort and resources required to create it. With the cooperation of *Zoological Record* staff, at least in the initial stages of development, and provision for third party registration, much of the burden is potentially lifted from authors. However, extra resources for the development of ZooBank are clearly necessary, and a business plan is therefore being developed which will be available in mid-2006. Funding will be sought from a variety of sources, including charitable trusts, foundations, and national and international donors.

To a certain extent, the establishment and acceptance of ZooBank will depend upon the adherence of zoologists to the ICZN Code rather than adoption of any other proposed nomenclatural systems such as the Phylocode or Biocode. The experience of the last few years suggests such adoption of alternative codes extremely unlikely.

The advent of web-based taxonomy seems inevitable, and thus many of the aspects of ZooBank and the ICZN Code that are affected by traditional journal or monograph-based publication will cease to be relevant. A scenario whereby the act of registration would effectively constitute publication is clearly a strong possibility in the near future. Before that can happen, a rigorous and democratic peer-review system needs to be in place to enable solely web-based taxonomy.

Finally, the year 2008 represents 250 years – a quarter of a millennium – of Linnaean zoological nomenclature. It would be extremely timely if the ZooBank register were to be complete for retrospective registration, and up to date for new animal names, by that date.

ZooBank and Zoological Record: a partnership for success

Nigel J. Robinson (*Director, Operations & Development, Thomson Zoological Ltd, York, U.K.*)

Having served the zoological research community for almost 150 years, Zoological Record (ZR) is now the oldest continuing index to the life science literature and contains the most complete and up to date record of animal taxonomy in the World. Initiated by a group of scientists associated with the British Museum in 1864, ZR was supported by the Zoological Society of London until 1980 when BIOSIS undertook production operations as joint publisher. In 2004, BIOSIS was acquired by the Thomson Corporation. Now backed by a global organization, and despite the many changes, highs and lows, over the years, ZR still continues where many others have failed, and still has its original mission to provide a service to the scientific community, with particular reference to biodiversity and taxonomy.

Today, ZR is produced by a team of 32 staff based in York, U.K. Taxonomic indexing is carried out by graduate zoologists using highly sophisticated systems and data capture procedures developed in-house specifically for ZR. These systems produce accurate output quickly, with articles generally being processed within 2–11 days of receipt; they use form-based validation and data entry with over 100 integrated checks to ensure data quality, and have allowed ZR to build publisher relations so that comprehensive coverage can be obtained in a timely fashion. ZR has never been more accurate, complete or up to date.

While ZooBank should clearly be driven and organised by ICZN, as a partner ZR can help by contributing data and back-end processing to enable the project to become reality much earlier, with greater ongoing efficiency, and with more complete data than would otherwise be possible. Many of the requirements of ZooBank are already in place in ZR data capture and processing, or are contained within the newly enhanced and freely accessible Index to Organism Names service (www.organismnames.com). These features include alerts to new names, ability for authors to submit names and publications for inclusion, original description references, links to recent articles containing the name, links to ZR and on to full text publications, links to web resources for the name, etc. So, ZR is in an ideal position to support the ZooBank names registry project.

Given the existing coverage of ZR, and the processing already in place, it is proposed that new names published in the scientific literature are captured and indexed by ZR, validated for Code-compliance, and registered in ZooBank as part of the routine ZR processing. Working with ICZN, it would be relatively easy to check Code-compliance based on ZR data capture. Much of the information required to perform these checks is already gathered as part of normal indexing operations. Any published articles submitted by authors and publishers could be routed the same way ensuring registration and inclusion of associated biology and nomenclatural acts in ZR with minimal costs and overheads for authors, publishers and ICZN. In addition, as all years of ZR will be made available electronically during 2006, the ZR data can be used to assist in retrospective registration of existing names linking to the most comprehensive set of animal names data in the world.

As a sign of commitment to the project, Thomson plans to continue working with such organizations as the Global Biodiversity Information Facility (GBIF) and Species 2000 (the Species 2000 web servers are hosted and maintained by Thomson), and will provide support to ICZN, assisting in the development of a prototype ZooBank over the coming months. The involvement of a commercial company as a partner brings the advantage of advanced, ready built technology, and stability/longevity going forward. With links to the published literature, much as full text articles, ZR is an ideal partner to accelerate, assist and participate in the ZooBank project and we look forward to a fruitful partnership.

ZooBank and GBIF

Per de Place Bjørn (*GBIF, Copenhagen, Denmark*)

The Global Biodiversity Information Facility is a megascience facility aimed at making the world's biodiversity data freely and universally available via the internet,

and sharing primary scientific biodiversity data to benefit society, science and a sustainable future. GBIF participants currently comprise 47 country members and 31 international organisations (including ICZN). There are currently 149 GBIF data providers, serving data from 517 collections. To date, these have contributed more than 73 million specimen and observation records, and more than 500,000 species records (more than a million names), most of these from the Species 2000/ITIS Catalogue of Life project. The data include, however, a large number of unregulated names from labels and field observations, and GBIF plans to develop tools to directly serve taxonomic data to GBIF from providers.

How can GBIF collaborate with ZooBank and thereby enhance taxonomy? GBIF and TDWG are setting out to form a community around GUIDs for biodiversity data. A workshop is scheduled for early February 2006 to explore infrastructure, with the possible adoption of Life Science IDentifiers (LSIDs) or Digital Object Identifiers (DOIs). LSID's take the following format: *urn:lsid:<domainName>:<namespace>:<objectId>[:<revisionId>]*; so an LSID referring to a specimen record in the GBIF network (with identifiers assigned centrally) could take the form: *urn:lsid:gbif.net:Specimen:2706712* while a record from IPNI might be in the form: *urn:lsid:ipni.org:TaxonName:82090-3:1.1*. Clearly the ZooBank project needs will be incorporated in this process. A GBIF-hosted discussion list on GUIDs is available at: <http://wiki.gbif.org/guidwiki/>.

Other multi-disciplinary fields where GBIF is planning to have a role – and where ZooBank data will be pivotal – are the development of standards for web-wide integration of taxonomical working methods (Web-enabled taxonomy) as well as standards for web-representation of broad biological information – Species Pages.

The availability of ZooBank data will also be heightened by dissemination through the GBIF portal as GBIF will form a link between taxonomically related databases and databases about animal distribution and ecology, including data related to conservation and genomics. Naturally, new entries can be immediately available through the GBIF portal and network.

For instance, the linkage between specimens and observations and the unique ZooBank entries will largely reduce ambiguity in biodiversity science.

The integration of existing, well-curated and reviewed Global Species Databases as available through the Catalogue of Life Partnership may form a future structure to enable retrospective capture and registration of animal names.

Implementing the digital taxonomic revolution: alternative strategies for a web-based registry of taxonomic names

Richard Pyle (*Bishop Museum, Honolulu, Hawaii, U.S.A.*)

Registration, publication, and availability can be defined for our present purposes as follows: Registration is the process of entering a complete record in the ZooBank registry. Publication refers to Code-compliant published works, as defined in Chapter 3 (Articles 7–9) of the 4th Edition of the ICZN Code. An available name is a scientific name applied to an animal taxon that conforms to the provisions of the Code. Below I will present the following three scenarios relating to registration and publication, and how they affect, and are affected by, the current Code: 1. (Publication +

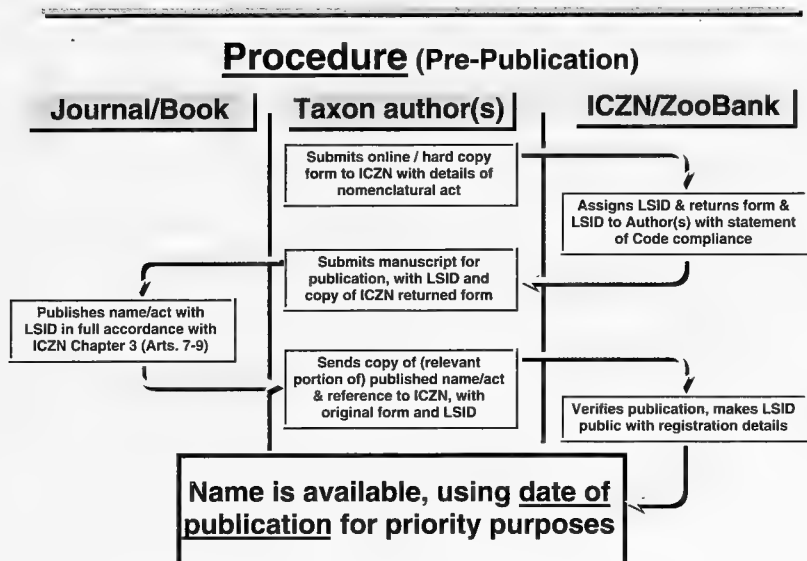
(Publication + Registration) = Availability

Figure 1

Registration) = Availability (Polaszek *et al.*, 2005; *ZooBank Technical Article*, pp. 3–5); 2. Registration = Availability (Polaszek *et al.*, 2005; *ZooBank Technical Article*, pp. 5–9); 3. Registration = Publication = Availability (Doug Yanega post to *ZooBank List*, 22 Sep 2005).

1. Publication + Registration = Availability. To be available, names and acts must be published in accordance with existing Code rules, *and* be registered. Registration can take place either before publication, or after publication. If before or within two years after publication, the date of availability is the publication date (figs. 1 & 2). If more than two years after publication, the date of availability is the registration date (fig. 3). The advantages of this scenario include relatively small changes to existing taxonomic practice, rapid implementation via an amendment to the 4th edition of the Code, the maintenance of implicit quality control via traditional publication venues, and consequently, perhaps, broader acceptance by the taxonomic community. Possible disadvantages include a somewhat complex procedure involving asynchronous publication and registration events, arbitrary time periods affecting dates of availability, and petitions to the Commission in certain special circumstances. However, given the existing complexities of the ICZN Code these procedures can hardly be considered as particularly complex. Another possible perceived disadvantage would be an ambiguous 'grey zone' between publication and registration when names and acts are 'assumed' to be available, even though technically not available until registered. Again, the probability is that most authors will register new names prior to publication, eliminating this problem entirely. While this scenario still suffers from all the complexities and ambiguities associated with traditional paper-publication entangled with nomenclatural availability, it would hardly differ from current practice, so would not really add up to an increase in complexity. Finally,

(Publication + Registration) = Availability

Procedure (Post-Publication, within 2 years)

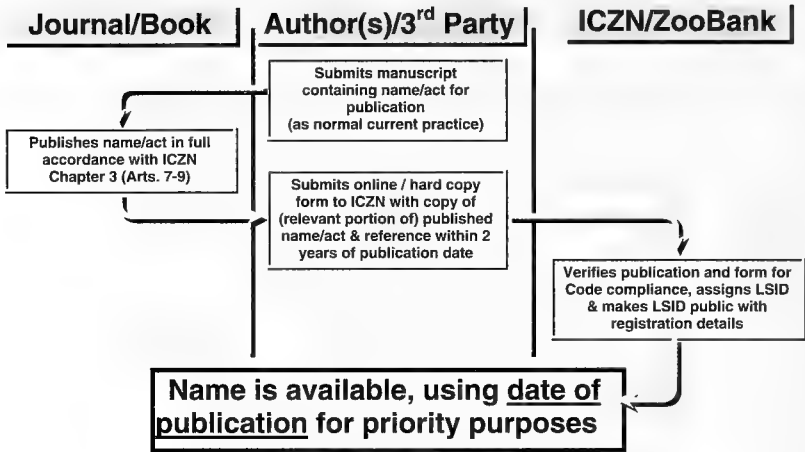


Figure 2

(Publication + Registration) = Availability

Procedure (More than 2 years Post-Publication)

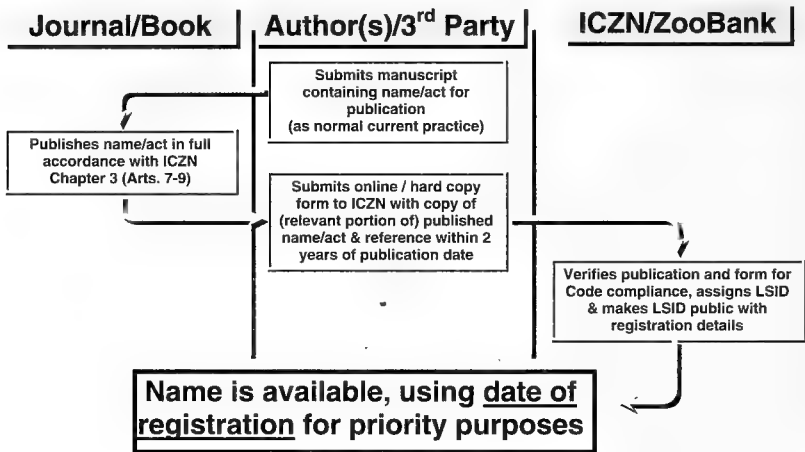


Figure 3

scenario 1 would require a (possibly extensive) increase in the active role of ICZN Secretariat staff (and associated costs) to process registration requests and verify Code-compliance before issuing GUIDs and exposing registration details to the public.

Registration = Availability

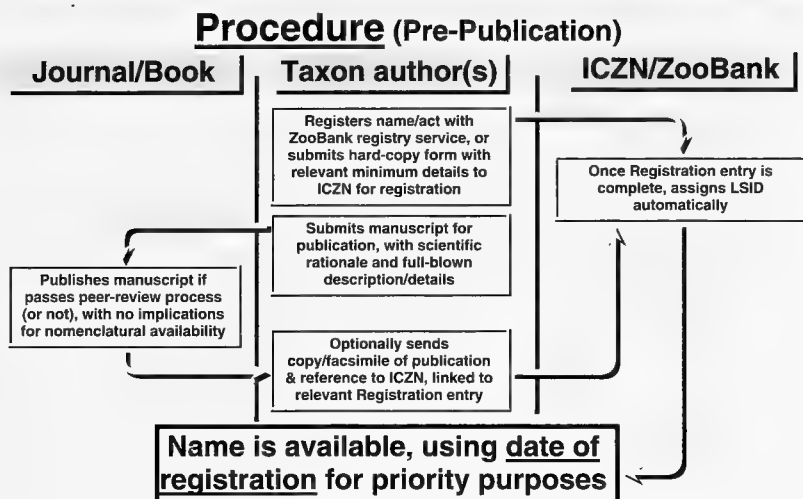


Figure 4

2. Registration = Availability. With this procedure, the process of registration itself is all that is required for availability of new names and acts. Prior or subsequent publication through traditional venues is encouraged, but is not integral to nomenclatural availability (fig. 4). Some advantages of this system would be that the legalities of nomenclatural availability and the science of taxonomy are disentangled from each other; there would be no ambiguity about dates of availability; existing complexities of nomenclatural availability of published works are moot, and only minor increases to the active role of ICZN staff (and associated costs) are envisaged. Possible disadvantages include a fundamental change to the way taxonomic names and acts are established (eliminating the publication process from the act of nomenclatural availability). However, this would not necessarily be a problem from the perspective of the taxonomists (i.e. virtually the same as scenario 1), and in fact would only require a change to the technical legality of nomenclatural availability, not necessarily any change to taxonomic practice. To implement this system, more extensive changes are also needed in the Code, such that these could probably only be implemented in a 5th Edition of the Code (perhaps 5–10 years away). However, it will probably anyway take several years to work out the details and demonstrate the feasibility via a working voluntary registration system. Another possible objection is that taxonomists would lose their primary benchmark for establishing professional status, i.e. their CVs would have fewer publications listed. Taxonomists' professional status is established by publishing articles on scientific taxonomy and classification, which would continue exactly as before; only the legalities of nomenclature would be dissociated from publications – not the science of taxonomy. While it is possible that some journals might not want to publish taxonomic descriptions if articles no longer carry the 'prestige' of establishing new names and acts in accordance with ICZN rules, it is also true that prestige in scientific publications

Registration = Publication = Availability

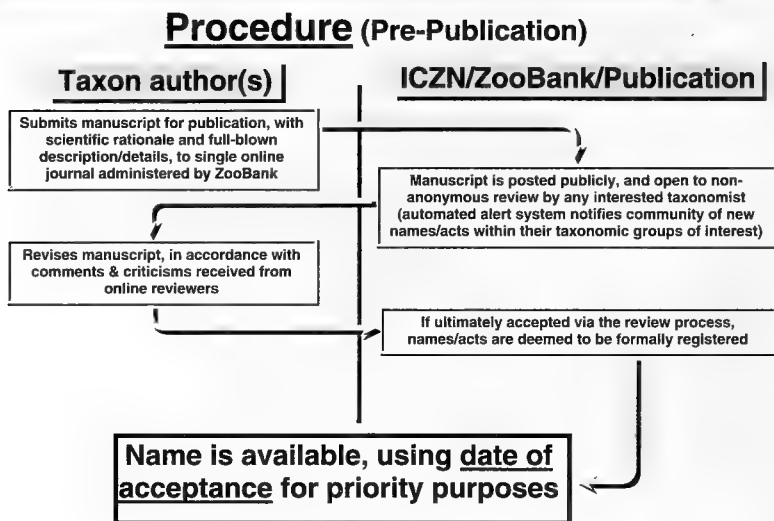


Figure 5

comes from the quality of the science content of the published articles, and not from fulfilling a legalistic technicality for nomenclatural availability. Elimination of quality control/peer review from the process of establishing new names and nomenclatural acts could also be perceived as a disadvantage, but since the Code requires neither peer review nor quality control, the scenario would be no different from the current situation. It could also be argued that the ICZN requirement for publication *de-facto* forces most names and acts through peer review anyway. The possibility that bad taxonomists (and non-taxonomists) might abuse the system by registering hundreds of bogus and unneeded names, perhaps for unscrupulous reasons (e.g. selling names for money) is also unaffected by the choice of possible scenarios – i.e. it always remains possible. The same goes for those taxonomists who might never get around to publishing the full description after the name is registered, potentially creating many names without robust taxonomic definitions.

3. Registration = Publication = Availability. Under scenario 3, the registration website, ZooBank, would host a comprehensive, edited and peer-reviewed online journal (such as *Zootaxa*) in which *all* names and acts must be published. The science of taxonomy becomes part of the nomenclatural process (by changes to the Code), and submitted manuscripts are open to non-anonymous review by any interested or concerned taxonomist (fig. 5). Major advantages of this procedure include zootaxonomic publications appearing in a single venue (as is now done for Bacteria), instead of scattered across thousands of journals, and the prevention of unscrupulous authors 'stealing' by trying to submit plagiarised work to a journal that has a faster turnaround time. All manuscripts would be examined by a large contingent of reviewers, instead of just a handful, greatly improving the reviews as well as democratizing the process. The reviews are also public, instead of anonymous, so personal grudges or biases of the reviewers are exposed to scrutiny by the whole

community. Furthermore, a dedicated nomenclatural journal would mean that the review criteria will explicitly address all necessary aspects of Code-compliance and proper nomenclature. Other advantages of an online review process include speed and openness to feedback. Above all, copyright issues would cease to be a problem. This scenario would, of course, represent a major and fundamental change to the way taxonomy is done, both in terms of legalities of nomenclature as well as for the science of taxonomy. With such major changes come particular difficulties, but the trade-off may well be worthwhile. With respect to online peer-review, it must be borne in mind that many taxonomic groups do not have many (or even any) experts who might serve as reviewers, and thus submitted manuscripts may never receive peer-review. This problem is equally true for traditional publication venues as well, but with only one 'official' taxonomic journal with potentially thousands of regular contributors and readers, there is a much better chance of finding someone who is qualified to review the manuscript. As with scenario 2, above, more extensive changes to the Code would be required, such that it could probably only be implemented in the 5th edition, perhaps 5–10 years in the future. In any case, it will probably take several years to work out the details and demonstrate the feasibility via a working voluntary registration system. It could be argued that such a system would impose a huge burden on the taxonomic community to provide peer reviews to 20,000+ new names each year, but in fact the burden would be no more than already exists. For every manuscript submitted and reviewed through the official ZooBank online journal, one fewer manuscript would be submitted to a traditional journal, so there would be no net increase in the total number of manuscripts to review. A common argument against such a scenario is that existing journals that depend on taxonomic descriptions and nomenclatural acts to fill their pages and maintain a subscriber base may be driven out of business. Since when is it the job of scientists to keep journal publishers in business? Journals exist to serve scientists, not the other way around. Criteria for determining when a submitted manuscript should be deemed 'accepted', and when (and by whom) will always be a subjective and contentious issue. This problem could be largely solved by having each manuscript assigned to an impartial 'referee' whose speciality is *outside* the particular taxon involved, and who is fully familiar with the code – serving the same role as a journal editor. Finally, the legalities of nomenclatural availability, and the subjective science of taxonomy, would, for the first time, be formally coupled under Code rules. Controversial as this sounds, it may be that a significant proportion of zoologists feel that quality control and peer review *should* be part of the Code's requirements for nomenclatural availability.

Copyright: the new taxonomic impediment

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Copyright is a set of exclusive rights granted by government for a limited time to regulate the use of a particular form, way or manner in which an idea or information is expressed. In law, an exclusive right is the power or right to perform an action in

relation to an object or other thing which others cannot perform. The law may require that a person seeks such rights through application, or it may automatically grant such rights. Exclusive rights may be granted in intellectual property law. Most governments recognize a bundle of exclusive rights in relation to creative and scientific works and property under the umbrella term 'intellectual property'. An example is copyright (Source: Wikipedia).

An example of copyright law impeding progress in taxonomy is revealed if we examine the number of publications dealing with ant species in 2003, when fewer than 5% were open-access and the remainder copyrighted.

In 2001 UNESCO produced the Universal Declaration on Cultural Diversity which reads: 'While ensuring the free flow of ideas by word and image, care should be exercised that all cultures can express themselves and make themselves known. Freedom of expression, media pluralism, multilingualism, equal access to art and to scientific and technological knowledge, including in digital form, and the possibility for all cultures to have access to the means of expression and dissemination are the guarantees of cultural diversity'.

Recent years have seen an unprecedented rise in the number of scientific and other documents being scanned, and in many cases made freely available via the internet. However, we feel that the copyright issue is still far from being addressed. In our opinion, taxonomic publications are 'legal documents', they must conform to the Codes to make the nomenclatural decisions presented valid. Thus everybody should have access to these legally binding documents. Taxonomic descriptions are also factual knowledge, that is knowledge based on direct observations. Thus, taxonomic publications, at least their descriptive parts, cannot be copyrighted, and should be open access. Species (or taxa in case of higher level revisions) descriptions can be considered the building blocks or basic data elements of taxonomic publications. They are very rich in detail. All the other elements of a publications are inferred from the analysis and synthesis of taxon descriptions. The descriptions are also the 'legal' element of the publication in compliance with the ICZN Code. Species descriptions can be further resolved into the basic units, characters in the description *sensu stricto*, and the specimen records, which are a species at a given time at a given locality, i.e. a collecting event. They could be enhanced by shared ontologies and gazetteers.

The deconstruction of text documents to, for example, XML format would be a means of placing descriptions in the public domain while circumnavigating copyright issues. Several initiatives for data domains and standards are currently being developed, including the Taxonomic Concept Schema, ABCD, DarwinCore, TaxonX and TaXMLit. Such document deconstruction projects could finally put species descriptions where they belong: firmly in the public domain, and allow third parties to build applications to mine, extract and integrate the very data-rich content of most descriptions.

Name Registration: One fewer impediment to taxonomy

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We are currently witnessing a renaissance in systematics. Traditional approaches to collecting, specimen preparation and study, and the production of, and access to,

published work, have been revolutionized through new technologies available to taxonomists. Digital technologies have changed all the rules; and taxonomic collections, literature, expertise, digital libraries and virtual monographs need to become distributed, virtual research tools and education resources. The new taxonomy needs to be *web-based*, providing a single, global point of access; *distributed*—for example, there are currently more than 350 web sites just for Lepidoptera; *authoritative*—we need an electronic catalogue of life; *accessible* to multiple audiences and *relevant* to societal concerns such as natural resource management, invasive species, agriculture and medicine. Taxonomic publications should not be end points, but ‘version control’ devices.

However, there are currently several impediments to the implementation of this new taxonomy, including lack of funding (most funding for systematics is devoted to constructing molecular phylogenies, not taxonomy), a dearth of taxonomists, difficulties inherent in the science itself, and scattered resources in terms of both specimens and literature. Funding issues have been recognized by the USA’s National Science Foundation, with their implementation of Planetary Biodiversity Inventories, revisionary syntheses in systematics and the PEET (Partnerships for Enhanced Expertise in Taxonomy) programme. The establishment of ZooBank will go a long way towards providing centralized sources of zoological taxonomic information.

The overarching finding of the recently published ‘Atkins Report’ (Atkins *et al.*, 2003), by authors from both academia and industry, is that a new age has dawned in scientific and engineering research, pushed by continuing progress in computing, information, and communication technology, and pulled by the expanding complexity, scope and scale of today’s challenges. The capacity of this technology has crossed thresholds that now make possible a comprehensive ‘cyberinfrastructure’ on which to build new types of scientific and engineering knowledge environments and organizations, and to pursue research in new ways and with increased efficiency. This cyberinfrastructure will be used to build more ubiquitous, comprehensive digital environments that are interactive and functionally complete for research communities in terms of people, data, information, tools, and instruments. Such a cyberinfrastructure will include grids of computational centres, some with computing power second to none; comprehensive libraries of digital objects including programmes and literature; multidisciplinary, well-curated, federated collections of scientific data; thousands of on-line instruments and sensor arrays; convenient software toolkits for resource, discovery, modelling and interactive visualization and the ability to collaborate with physically distributed teams of people using all of these capabilities. Again, according to the Atkins Report, many contemporary projects require effective federations, distributed resources (data and facilities) and distributed, multidisciplinary expertise. Examples of ‘Virtual Science Communities’ include: National Ecological Observatory Network (NEON), National Virtual Observatory (NVO), Space Physics and Aeronomy Research Collaboratory (SPARC), Grid Physics Network (GriPhyN), Biomedical Informatics Research Network (BIRN) and National Science Digital Library (NSDL). During the last three years NSF has sponsored workshops on taxonomy, systematics, imaging and databasing. These workshops have called for a national framework for taxonomic research and natural history collections. One vision of this framework is the LINNÉ project (Legacy

Infrastructure Network for Natural Environments). LINNÉ would be a distributed, virtual taxonomic cyberlaboratory, of which each collection or taxonomic research facility is potentially a node.

Implementation of LINNÉ will modernize the national infrastructure for taxonomic research with high resolution two- and three-dimensional surface and internal scanning using computer tomography, remote-controlled digital microscopy, comprehensive digital libraries, modern collection facilities, the provision of comprehensive access to taxonomic and collections information worldwide, and new tools for education and outreach. This 'virtual research platform' will address the so-called 'big questions': What are earth's species, and how do they vary? How are species distributed in geographical and ecological space? What is the history of life on Earth, and how are species interrelated? How has biological diversity changed through space and time? What is the history of character transformations? What factors lead to speciation, dispersal and extinction?

Virtually all of the necessary technology is already in place or will be in the next few years in order to implement this vision. Many national and international activities are already underway, and initiatives such as the National Biological Information Infrastructure (NBII) are linking databases, informatics products and analytical tools for data sharing among governmental agencies, NGOs, academic institutions and industry. Similarly, GBIF, operating at the intersection of science, policy and applications, currently comprises 47 member countries, and is especially concerned with access, diversity of data, setting taxonomic standards (including the development of ECAT, the Electronic Catalogue of Life), data quality, data cleaning tools, interoperability (including GUIDs – global identifiers for specimens and collections) and collaboration. GBIF can provide critical components of cyberframework for LINNÉ, and in exchange, LINNÉ will provide data to GBIF. The SYNTHESYS initiative includes 20 European natural history museums and botanic gardens and is funded through the FPVI Integrated Infrastructure Initiative Grant. Starting in 2004, the objective of this 5-year project is to create an integrated European infrastructure for researchers in the natural sciences. 20 institutions and 11 national taxonomic facilities are involved in a two part plan comprising access and networking activities. Other initiatives include the European Network for Biodiversity Information (ENBI), the European contribution to GBIF, the CHRONOS project for the earth sciences community, the National Ecological Observatory Network (NEON) and the Natural Sciences Collections Alliance. Thus the foundations are already demonstrably in place, and the challenge is not to invent all of the necessary components *de novo*, but rather to identify what is already there, to implement the new cyberinfrastructure and integrate these components into an operational system. To do this will require that we establish a common vision and research agenda, and that we work as a community, worldwide to achieve it. This will require a change in our scientific culture necessitating an integrated, 'big-science' approach, and we need to identify common goals and work together. Other communities have done this, but there were some tough transitions. For example, particle physicists had terrible problems with career recognition and rewards with the switch to a big science paradigm. Other challenges include the fact that it will cost billions of dollars; will require Congressional and State action; it will require a unified user community, will take many years and will not be easy. However, if successfully

achieved, LINNÉ will preserve our heritage, revitalize taxonomy, and will be the most important new tool available to biologists in the 21st century.

Reference

Atkins, D.E., Droegemeier, K.K., Feldman, S.I., Garcia-Molina, H., Klein, M.L., Messerschmitt, M.L., Messina, P., Ostriker, J.P. and Wright, M.H. (2003). Revolutionizing science and engineering through cyberinfrastructure. *Report of the National Science Foundation Blue-Ribbon Advisory Panel on Cyberinfrastructure*, 1–52. NSF, Washington, D.C.

Case 3346***Misumena nepenthicola* (currently *Henriksenia nepenthicola*; Arachnida, Araneae, THOMISIDAE): proposed attribution of authorship to Pocock (1898)**

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Abstract. The purpose of this application, under Articles 12 and 50.1 of the Code, is to validate the commonly used, but incorrect, attribution of the synonym *Misumena nepenthicola* (currently *Henriksenia nepenthicola*) to Pocock (1898). This name of a nepenthicolous thomisid spider from Borneo was unavailable from the original paper by Pocock (1898). It is threatened by the available but not widely used name *Misumenops nepenthicola* Bristowe, 1930 and by its primary homonym *Misumenops nepenthicola* Fage, 1928, used for a different spider species from Singapore. It is proposed that the attribution of the name to Pocock (1898) is validated.

Keywords. Nomenclature; taxonomy; Arachnida; Araneae; MISUMENINI; *Misumena*; *Misumenops*; *Henriksenia*; *Henriksenia nepenthicola*; Borneo; Singapore; crab spiders; *Nepenthes* pitchers.

1. Pocock (1898, p. 274) introduced the name *Misumena nepenthicola* for a thomisid spider living in pitchers of some *Nepenthes* species from Borneo (currently Sabah, Malaysia). He indicated its locality (Labuan Island off the northwest coast of Borneo) and microhabitat (pitchers of some species of *Nepenthes*), but did not provide any description, rendering this name unavailable (Article 12).

2. Fage (1928, p. 13) 'described' a nepenthicolous spider from Singapore and identified it as *Misumenops nepenthicola* in the belief that it was conspecific with *Misumena nepenthicola* Pocock, 1898. I have studied the syntypes of *Misumenops nepenthicola* Fage (1928) at the Muséum National d'Histoire Naturelle, Paris, along with recently collected material of the nepenthicolous MISUMENINI species from Singapore and compared those with the syntypes of *Misumena nepenthicola* Pocock, 1898 from Borneo (Labuan). This comparison revealed that these are two different species. Besides, the comparison of nepenthicolous species of the tribe MISUMENINI from various areas has shown that there are at least five species commonly identified as '*Misumenops nepenthicola*' (Lehtinen, in preparation).

3. Bristowe (1930, pp. 345–346) described *Misumenops nepenthicola* based on material from Borneo, at least partly based on the syntypes of *Misumena nepenthicola* Pocock, 1898 from Labuan attributing the species to Pocock. He noted that Pocock (1898) did not provide any description for *Misumena nepenthicola* and published a description and drawings of the female habitus and sketches of the female and male copulatory organs of this species.

4. One male, one female and a badly broken subadult female of a nepenthicolous thomisid spider from Labuan collected by A.H. Everett are housed in the Natural History Museum, London, and are preserved in a vial labelled 'TYPE' and numbered BM 1894.6.27.2.5. These three syntypes of *Misumena nepenthicola* Pocock, 1898 are also syntypes of *Misumenops nepenthicola* Bristowe, 1930, as they agree with Bristowe's (1930) drawings. The locality Labuan was not mentioned in the description by Bristowe (1930), but the island of Labuan was administratively part of Borneo in Bristowe's time and now of the Malaysian state Sabah. The only male in this vial is herein designated as the lectotype of *Misumena nepenthicola* Pocock, 1898 and Bristowe, 1930.

5. *Misumenops nepenthicola* Fage, 1928 (p. 13) is a valid name for a nepenthicolous spider from Singapore currently assigned to the genus *Henriksenia* Lehtinen, 2004, while the name *Misumenops nepenthicola* Bristowe, 1930 is its junior homonym. The nomenclatural problems of this species remained unnoticed by most taxonomists who persistently used the name *Misumenops nepenthicola* Pocock, 1898 for several species of MISUMENINI from Southeast Asia. The name appears in all major lists, textbooks and catalogues (e.g. Berland, 1932; Baum, 1938; Roewer, 1954; Bonnet, 1957; Platnick, 2006). The binomen *Misumenops nepenthicola* has been much used in ecological and in some other non-taxonomic publications, sometimes attributed to Pocock but most commonly without any author's name, possibly in the belief that there was only one species of nepenthicolous Misumenini spider. Fage (1926), Mohr (1931, 1932), Bristowe (1931), Studnička (1984), Moran (1993), Boulay (1997), Hartmeyer (1998), Soeseno (1998), Koh (2000) and Stanford (2003) used this name in a study of complex ecosystems inside *Nepenthes* pitchers. This name has also been used in papers on theoretical biology (e.g. Luczkovich et al., 2003). The application of the provisions of the Code would seriously disturb stability and cause confusion in the taxonomy of thomisid spiders. Stability would be best served by the validation of the attribution of *Misumena nepenthicola* to Pocock (1898). In that case the name *Misumenops nepenthicola* Fage, 1928 will become a junior homonym of *Misumena nepenthicola* Pocock, 1898, and *Misumenops nepenthicola* Bristowe, 1930 will become a junior synonym of *Misumena nepenthicola* Pocock, 1898.

6. It is proposed that the name *Misumena nepenthicola* (currently *Henriksenia nepenthicola*) is attributed to Pocock (1898).

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that the name *nepenthicola*, as published in the binomen *Misumena nepenthicola*, is deemed to be available from Pocock, 1898;
- (2) to place on the Official List of Specific Names in Zoology the name *nepenthicola* Pocock, 1898, as published in the binomen *Misumena nepenthicola*, as defined by the lectotype housed in the Entomology Department of the Natural History Museum, London, and as ruled to be available in (1) above.

Acknowledgements

Ms Janet Beccaloni, Natural History Museum, London, kindly made the type material of *Misumenops nepenthicola* Bristowe, 1930 from Labuan Island and material of a related, undescribed species from Thailand available for study. The late

Dr Jacqueline Heurtault, Muséum National d'Histoire Naturelle, Paris, enabled my study of the type material of *Misumenops nepenthicola* Fage, 1928 from Singapore during my visit to this museum. The High Commissioner of Singapore in Canberra, Australia, Mr Joseph K.H. Koh, arranged through Dr Peter Ng the sending of fresh material of this species from Singapore for my SEM-mounts. Mr Olav Henriksen, Vice-Director, UPM-Kymmene Group, Finland, made possible my post-retirement trip from Singapore to Riau Province in Sumatra, Indonesia, resulting in the collection of an undescribed species of this group, while Dr Jason Dunlop, Zoologisches Museum, Berlin, Germany, made available the female holotype of *Misumenops thienemanni* Reimoser, 1931 from Sumatera Utara, Indonesia. All these people are gratefully acknowledged for their help.

References

- Baum, J.** 1938. *V řiši pavouků*. 175 pp. Vesmír, Praha.
- Berland, L.** 1932. Les Arachnides (Scorpions, Araignées, etc.): biologie systématique. *Encyclopédie entomologique, Série A., Travaux généraux*, **16**: 1–485.
- Bonnet, P.** 1957. *Bibliographia araneorum*, Toulouse, **2**(3): 1927–3026.
- Boulay, J.** 1997. Les Nepenthes. *Dionée*, **38**, <http://www.multimania.com/dionaea/bulletins/>, accessed in April 2006.
- Bristowe, W.S.** 1930. Notes on the Biology of Spiders II. Aquatic spiders. *Annals and Magazine of Natural History*, (10)**6**(33): 343–347.
- Bristowe, W.S.** 1931. Notes on the Biology of spiders: IV. Further notes on aquatic spiders with a description of a new species of *Pseudoscorpion* from Singapore. *Annals and Magazine of Natural History*, (10)**8**(47): 457–465.
- Fage, L.** 1926. Sur une Araignée vivant dans les urnes de *Nepenthes*. *Compte Rendu Sommaire des Séances de la Société de Biogéographie*, **3**(24): 82–85.
- Fage, L.** 1928. Araneae. In Notes on the Fauna of Pitcher Plants. Part IV. *Journal of the Malayan Branch of the Royal Asiatic Society*, **6**(3): 13–19.
- Hartmeyer, S.** 1998. Some new facts on the phenomenon of carnivorous plant. home.t-online.de/S.Hartmeyer/artsyme2.htm, accessed in April 2006.
- Koh, J.K.H.** 2000. *A guide to common Singapore spiders*. 160 pp. Singapore Science Centre, Singapore.
- Lehtinen, P.T.** 2004. Taxonomic notes on the Misumenini (Araneae: Thomisidae: Thomisinae), primarily from the Palaearctic and Oriental Misumenini (Thomisidae: Thomisinae). Pp. 147–184 in Logunov, D.V. & Penney, D. (Eds.), *European Arachnology 2003 (Arthropoda Selecta Special Issue 1 – Proceedings of the 21st European Colloquium of Arachnology, St. Petersburg, 4–9 August 2003)*, Zoological Museum of the Moscow Lomonosov State University, Moscow.
- Lehtinen, P.T.** [In preparation]. Revision of the nepenthicolous Misumenini (Araneae: Thomisidae) from Southeast Asia.
- Luczkovich, J.L., Borgatti, S.P., Johnson, J.C. & Everett, M.** 2003. Defining and Measuring Trophic Role Similarity in Food Webs Using Regular Equivalence. *Journal of Theoretical Biology*, **220**: 303–321.
- Mohr, J. C. van der Mer.** 1931. Enkele aanvullende Gegevens betreffende *Nepenthes*-Spinnen. *Tropische Natuur: Nederlandsch-Indische Natuurhistorische Vereeniging Weltevreden*, **20**: 24–29.
- Mohr, J. C. van der Mer.** 1932. A propos des Araignées népenthicoles du nord de Sumatra. *Tijdschrift voor Entomologie*, **75**, Suppl.: 233–241.
- Moran, J.A.** 1993. *Misumenops nepenthicola*: the top aquatic predator of the *Nepenthes* food web. *Brunei Museum Journal*, **8**: 83–84.
- Platnick, N.I.** 2006. *The World Spider Catalog, version 6.5*. American Museum of Natural History, online, <http://research.amnh.org/entomology/spiders/catalog/INTRO1.html>, accessed in April 2006.

- Pocock, R.I.** 1898. Spider and pitcher plant. *Nature*, **58**: 274–275.
- Reimoser, E.** 1931. Echte Spinnen der deutschen limnologischen Sunda-Expedition. *Archiv für Hydrobiologie, Suppl.*, **8**: 759–770.
- Roewer, C.F.** 1954. *Katalog der Araneen von 1758 bis 1940, bzw. 1954*, vol. 2. 1751 pp. Bruxelles.
- Soeseno, S.** 1998. Periuk hantu menjebak lalat. *Intisari Online*. www.indomedia.com/intisari/1998/mei/periuk.htm, accessed in April 2006.
- Stanford, A.** 2003. W. pajęczej sieci, *Polskie Towarzystwo Kreationistycznego*, <http://creationism.org.pl/artykuly/AStanford>, accessed in April 2006
- Studnička, M.** 1984. Masožravé rostliny. Trávení kořisti, <http://www.masozravky.com/ostatni/kniha/STUDNICKA/studnicka05.htm>, accessed in April 2006.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3334***Colias alfacariensis* Ribbe, 1905 (Insecta, Lepidoptera, PIERIDAE):
proposed conservation of the specific name by giving it precedence over
three senior subjective synonyms**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *alfacariensis* Ribbe, 1905, which is in widespread use for a butterfly species of the genus *Colias* Fabricius, 1807 (family PIERIDAE). The name is threatened by three little-used senior subjective synonyms, *Colias hyale sareptensis* Alphéraky, 1875, *Colias hyale alba* Rühl, 1893 and *Colias hyale meridionalis* Krulikowsky, 1903. It is proposed that *C. alfacariensis* is given precedence over the other three names whenever it and any of the others are considered to be synonyms.

Keywords. Nomenclature; taxonomy; Lepidoptera; PIERIDAE; *Colias*; *Colias alfacariensis*; *Colias sareptensis*; *Colias alba*; *Colias meridionalis*; Europe; Russia; Iran.

1. The name *alfacariensis* was originally published by Ribbe (1905, p. 137) as '*Colias hyale* ab.[erration] *alfacariensis*' and discussed as a geographical form distinguishable from those that occur in other regions. The name *alfacariensis* was unavailable from its first publication in 1905 because of Ribbe's use of the term 'ab'. A proposal was eventually submitted asking the Commission to confirm the availability of the name, and thus establish its priority over others such as *australis* Verity, 1911 and *alfacariensis* Berger, 1945 (Whitebread et al., 1988, pp. 29–32). The Commission approved this proposal (Opinion 1657, 1991, p. 272) and placed *Colias alfacariensis* Ribbe, 1905 on the Official List of Specific Names in Zoology, thus ending almost half a century of nomenclatural instability. Because of this it has recently been considered that the earliest name applicable to the yellow European species of the *hyale* group of *Colias* Fabricius, 1807 which is not *hyale* Linnaeus, 1758 (Berger, 1945a, pp. 9–10; 1945b, pp. 33–34) is *alfacariensis* Ribbe, 1905.

2. After several decades of controversy *alfacariensis* is now the predominantly used name in numerous publications, and is generally accepted as the valid name for the species occurring from southern and western Europe to south-western Russia and

north-eastern Iran. The Commission Secretariat holds a list of 63 references by 72 authors, using the name *alfacariensis*, published between 1949 and 2003; a much longer list could easily be compiled. However, *C. alfacariensis* Ribbe, 1905 is not the oldest available name; it is threatened by the overlooked synonyms *C. hyale sareptensis* Alphéraky, 1875, *C. hyale alba* Rühl, 1893, and *C. hyale meridionalis* Krulikowsky, 1903. This leaves us with an untenable situation, since the substitution of any of these three little-known names for the well-established name *C. alfacariensis* would cause much confusion.

3. A few years ago, especially in the Russian entomological literature (e.g. Tuzov et al., 1997, p. 172), another name for the species currently known as *C. alfacariensis* Ribbe, 1905 appeared, i.e. '*Colias sareptensis* Staudinger, 1871'. The name '*sareptensis*' was originally published as 'No. 64.a. *Col. Erate* ab. *Sareptensis*' by Staudinger (1871, p. xxxvii) and '64. *Hyale* . . . ab. (an hibr?) *Sareptensis*' (1871, p. 5). The numbering of the species in the text of Staudinger's catalogue (1871, p. 5) indicates that the linking with *C. erate* (Esper, [1805]) in the list of the new designations (p. xxxvii) was a lapsus. Staudinger's name '*sareptensis*' was unavailable from its first publication in 1871 because of the use of the term 'ab'. It is therefore of infrasubspecific status (see Article 45.6.2 of the Code – Determination of infrasubspecific rank of the names). Staudinger never applied the name '*sareptensis*' to a population or a group of populations.

4. Kirby's (1872, pp. xlv-xlvi) erroneous application of the name *hyale* Linnaeus, 1758 to the orange species currently known as *Colias croceus* (Geoffroy, 1785) had an unforeseen side effect, for the yellow species that is currently known as *C. hyale* would have been left without a valid name of its own. Having searched the literature for applicable names Kirby suggested that 'The only name which I can find for *Hyale* [of authors] . . . is *Sareptensis*, applied by Staudinger . . . to a variety. It is a very inappropriate name . . . but unless all the misnomers in Entomology are to be rejected, I do not think we can avoid adopting it'. Kirby's use of '*sareptensis*' did not make the name available, because he clearly misidentified Staudinger's '*sareptensis*' (he never saw Staudinger's specimens). He thought that Staudinger's name represented his conception of 'the *hyale* of authors', but this is wrong. Kirby's intention was to find a new name for the species known to other authors as *C. hyale*, but Staudinger used the name *sareptensis* in reality for yellow spotted specimens of *C. erate* and possibly also for the species currently known as *C. alfacariensis*.

5. Alphéraky (1875, pp. 153–154) published the name *sareptensis* in the combination '*Colias Hyale* L. var. *Sareptensis*'. The true status of Alphéraky's *sareptensis* is rather confused as he used Staudinger's name but then described something different to what Staudinger had apparently intended. He inferred that Staudinger considered *sareptensis* to be a hybrid between *C. hyale* and *C. erate*, and indeed indicated that he had seen such hybrids himself. He then said: 'However, such specimens seem to me very different from the constant variety ("postoyannoe vidoizmenenie") var. *Sareptensis* Stgr., which I saw in Dr. Staudinger's collection, and which I collect every year near Taganrog'. The Russian 'vidoizmenenie' is an archaic word used in Russian scientific publications in the 19th century. In those days the term 'vid' corresponded with the category species, and 'vidoizmenenie' had a meaning almost identical to what is now known as a subspecies. The term 'vid' means the species and 'vidoizmenenie' means a subordinate category. The subspecies concept was not then fully developed; thus

different subspecies did not have to be allopatric and, in theory, two 'vidoizmenenie' (subspecies) could occur together. After describing the insect, he also said: '... this form is very common and belongs to the type *Hyale*... [the *C. hyale* group of species]' and: 'I propose to consider var. *Sareptensis* Stgr. not as an individual form but a permanent form characteristic of southern and south-eastern Russia'. This description makes the name available at the subspecific rank (see Article 45.6.4 of the Code).

6. The status of *sareptensis* Alphéraky is further confused by his subsequent writings on the subject. In 1881 (Alphéraky, 1881, pp. 365–366) he first mentioned the specimen he received from Staudinger and says that it is one of the hybrid individuals. He eventually admitted that he didn't know what to do with the name: 'Now I don't know whether the name var. *Sareptensis* Stgr. or ab. *Sareptensis* Stgr. should be adopted, or to which form it should be applied'. Then, in 1908 (Alphéraky, 1908, p. 564), he decided that the name should be applied to the hybrids: 'Under the name *sareptensis* in my first list I said that larger specimens with a brighter yellow wing colour etc. fly at Taganrog. In this I was clearly mistaken, however the mistake was not mine but rather Staudinger's'. He also accepted Krulikowsky's *C. meridionalis* (see para. 12 below) as the name to be applied to the new entity: 'L.K. Krulikowsky has now perfectly reasonably called these latter: var. *meridionalis*', and referred to it as such throughout the rest of the work. However, the fact that he changed his mind in 1908 does not affect the status of the taxon as inferred from the original description (Alphéraky, 1875).

7. Alphéraky (1875, pp. 153–154) was clearly convinced that there were three different kinds of *Colias* flying together near Taganrog, i.e. *C. hyale*, *C. erate* (he often found these two species in copula and they produced hybrids) and 'var. *Sareptensis*'. He mentioned that Staudinger thought that his specimens could be hybrids. What Alphéraky considered these hybrids to be can be found in the work about the Lepidoptera of Kouldja (Alphéraky, 1881, pp. 365–366): 'But that [specimen] which I once received under this name from Dr. Staudinger is not a constant form, but a hybrid between *C. Erate* Esp. and *Hyale* L. . . . The hybrid specimens are generally the same colour as *Erate*, but the black border is spotted with yellow'. (Examination of the surviving Staudinger 'types' of '*sareptensis*' proves these 'hybrids' to be *C. erate* with fenestrated forewing borders). As stated above, Staudinger's unavailable '*sareptensis*' probably consisted of two different species, i.e. *C. alfacariensis* and *C. erate*. Alphéraky regarded his 'var. *Sareptensis*' as being closely related to *C. hyale* and mentioned the main identifying feature several times, e.g. the 'wing colour [of the male] is much more yellow' (Alphéraky, 1875, pp. 153–154), the 'warm yellow colour of the male' (Alphéraky, 1881, pp. 365–366), or a 'brighter yellow wing colour' (Alphéraky, 1908, p. 564). He examined between 2,000 and 3,000 specimens from Taganrog (Alphéraky, 1881); inspection of such a large series was surely the reason why he was able to separate the 'var. *Sareptensis*' from the normal *C. hyale* and the so-called hybrids. Alphéraky (1875, pp. 153–154) made the name *sareptensis* available by the fact that he used it as valid, also giving indications as to how to identify his 'var. *Sareptensis*'. We have examined part of Alphéraky's own series of 'var. *Sareptensis*' in St. Petersburg and can confirm that they are *C. alfacariensis* (but see the lectotype designation in para. 14 below). All of this leaves little doubt that his 'var. *Sareptensis*' is the species that we now know as *C. alfacariensis* Ribbe, 1905.

8. The name *sareptensis* Alphéraky, 1875 is considered available and applicable in the combination *Colias sareptensis* Alphéraky, 1875. It is the oldest available name for the taxon, being a senior subjective synonym of *Colias alfacariensis remota* Reissinger, 1989 from Volsk (south-western Russia). The name *sareptensis* cannot be suppressed without a decision by the Commission because it was treated as a valid species-group name after 1899 (e.g. Tuzov et al., 1997, p. 172), albeit under the wrong authorship (see Article 23.9.1 of the Code – Reversal of Precedence).

9. Butler (1880, p. 409) elevated Staudinger's unavailable '*sareptensis*' to specific status, treating it as '*Colias sareptensis*'. He considered it as a separate species from *C. erate*, but his *C. sareptensis* can only be *C. erate* as it is now known that no other similar species of *Colias* are found in Afghanistan. As a result of the lectotype designation for *sareptensis* Alphéraky, 1875 (see para. 14 below), Butler's *C. sareptensis* must be regarded as a subsequent misidentification.

10. The name *alba* was originally published as '*Colias Hyale* var.[ietas] *alba*' by Bienert (1870, p. 28) for specimens from Nishapur (north-western Iran); however, he failed to provide any description, definition or indication of characters purported to differentiate the taxon, other than that which is implicit in the descriptive name. That, by itself, cannot make the name available. Subsequently *alba* was used as a valid name by Rühl (1893, p. 156), who briefly described *Colias hyale* 'var. *alba* Bien.[ert]' from Nischapur as a geographical variety. We have not found any older use of the name; therefore we credit it to Rühl.

11. Reissinger (1989, p. 131) claimed that *alba* Rühl, 1893 is a junior homonym, thinking that the name was preoccupied by '*alba*' Haworth, 1802, but Haworth's '*alba*' (Haworth, 1802, p. 2) is unavailable; in fact it is not a scientific name at all but merely a descriptive Latin term. The listings of Bridges (1988, Annotations No. 3.7) also provoked confusion in this respect, making Staudinger's (1871, p. 6) '*alba*' appear as if it were available; but it is nothing more than an infrasubspecific form name applied to white females of *Colias myrmidone* (Esper, [1781]), so it can be ignored. Furthermore, the name '*alba*' is in widespread popular usage as applied to the white female form of many species of *Colias* worldwide. The name *Colias alba* Rühl, 1893 was certainly treated as an available and valid species group name by Tutt (1896, p. 254), Le Cerf (1913, p. 30) and Berger & Fontaine (1948, p. 108). The name *alba* Rühl, 1893 is a senior subjective synonym of *C. alfacariensis hyrcanica* Reissinger, 1989 from northern Iran. The name *alba* Rühl, 1893 cannot be suppressed without a decision by the Commission because it was treated as a valid species group name after 1899 as stated above (see Article 23.9.1 of the Code).

12. In 1903 Krulikowsky introduced the name *meridionalis* in the combination '*C. hyale* . . . var. *meridionalis mihi* (nomen novum)'. Krulikowsky (1903, p. 302) stated that there were two 'forms' occurring under the name '*sareptensis*' Staudinger; one was a large and intensively coloured 'race' of *C. hyale*, the other one probably a hybrid between *C. hyale* and *C. erate*. This is what Alphéraky (1881, pp. 365–366) wrote, and Krulikowsky (1903) clearly referred to this work. Subsequently he went on to say that the name '*sareptensis*' should be restricted to the hybrid, and for the southern [Russian] 'race' of *hyale* he proposed the new name *meridionalis*.

13. To understand the meaning of Krulikowsky's *meridionalis* it is necessary to read the works of Alphéraky (1875, 1881). Krulikowsky did not cite the earlier work

of Alphéraky from 1875. Alphéraky (1881, pp. 365–366) wrote that the specimens from Taganrog described by him as ‘var. *Sareptensis*’ are different to the single specimen that he received under the same name from Staudinger. He believed that the Staudinger specimen is a hybrid between *C. erate* and *C. hyale*, and he did not ‘know whether the name “var. *Sareptensis* Stgr.” or “ab. *Sareptensis* Stgr.” should be adopted, or to which form it should be applied’. This is why Krulikowsky proposed the new name *meridionalis* for the southern Russian ‘*hyale*’ (*sareptensis* sensu Alphéraky, 1875), under the mistaken assumption that the name *sareptensis* was only applicable to Staudinger’s so-called hybrids. But what Alphéraky (1875, pp. 153–154) described under ‘var. *Sareptensis*’ from Taganrog are specimens of *C. alfacariensis*, not *C. hyale*. The name *meridionalis* is considered invalid as a junior objective synonym of *C. sareptensis* Alphéraky, 1875 (see para. 14 below), and also a senior subjective synonym of *C. alfacariensis remota* Reissinger, 1989 from Volsk (south-western Russia).

14. It is not known what happened to Bienert’s collection; his material is not mentioned in Horn et al. (1990). Bienert was supported by Staudinger in his work on the Persian Lepidoptera, but no syntypes have been found in the Staudinger collection in Berlin (MNHU). Therefore Bienert’s original specimens of *alba* are presumed to be lost. The name-bearing specimens of ‘*sareptensis*’ in the Staudinger collection (MNHU, Berlin) currently comprise four males and one deep yellow female of *Colias erate*. According to Alphéraky (1908, p. 564) there were two different species under the name ‘*sareptensis*’ in Staudinger’s collection; one the so-called hybrid, and the other the ‘bright yellow south-Russian *C. hyale*’ (*sareptensis* sensu Alphéraky, 1875). Alphéraky had the opportunity to examine Staudinger’s collection personally, as he was in Dresden between 1871 and 1873 where he worked under Staudinger’s supervision (Tuzov et al., 1997, p. 62). It is likely that Alphéraky found two different species under ‘*sareptensis*’ in the name-bearing series, and it is therefore probable that the original series was more extensive than what remains now in the Staudinger collection. For the stability of zoological nomenclature it is important to have the name-bearing type of *C. sareptensis* Alphéraky, 1875 fixed by a lectotype designation. To resolve any confusion about the identification of the taxon, a lectotype is herewith designated from a syntypic Alphéraky specimen that clearly corresponds with what Alphéraky described, i.e. a specimen of the species currently known as *C. alfacariensis*. To prevent confusion, the lectotype of *C. sareptensis* is also designated as lectotype of *C. meridionalis* Krulikowsky, 1903. Lectotype (fig. 1 on page 111): the syntypic male specimen selected as the lectotype of *C. sareptensis* and *C. meridionalis* is a fresh specimen that fits Alphéraky’s (1875) description. The wings are of a ‘warm yellow colour’ (Alphéraky, 1881, pp. 365–366), and the individual is not as large (fore wing length: 20.35 mm) as most *C. hyale*, as Alphéraky (1875) stated. The size of the Alphéraky specimens is variable, so this is only an average feature. The wing shape is more rounded than in the other syntypic males. The hindwing discal spot is of a deep orange colour, a typical feature in *C. alfacariensis*. Also the extension of the black basal shading on the forewing is a typical feature for *C. alfacariensis*. The lectotype is set on a steel pin; the label data are: [printed label with crown] Колл.[екция] Вел.[ико]го] Князя Николая Михайловича [Coll. Grand Duke Nikolai Mikhailovich] // [small black bordered label in Alphéraky’s hand] Taganrog / IV 1874. [and printed on the underside] Alph. // [printed red label]

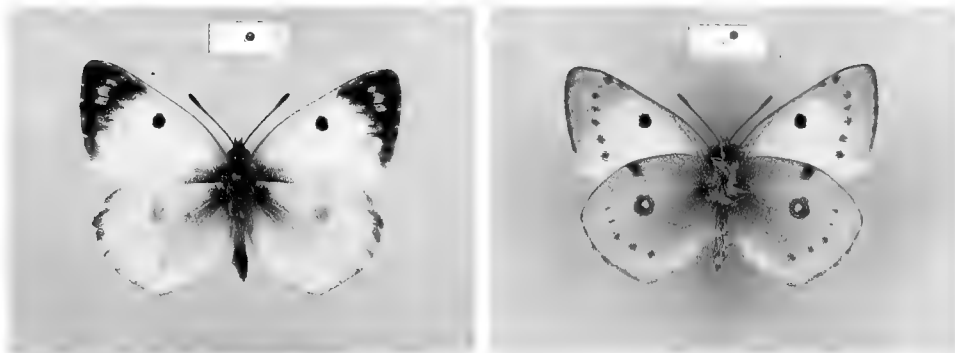


Fig. 1. Lectotype of *Colias hyale sareptensis* Alphéraky, 1875. Upperside (left) and underside (right). Fore wing length: 20.35 mm.

Lectotype / *Colias hyale* var. *sareptensis* Alphéraky, 1875 / *Trudy Russ. ent. Obshch.* 8: 153–154 / designated by J. Grieshuber, R. Worthy & G. Lamas, 2006 // [printed red label] Lectotype / *Colias hyale* var. *meridionalis* Krulikowsky, 1903 / *Revue Russe Ent.* 3(5): 302 / designated by J. Grieshuber, R. Worthy & G. Lamas, 2006. Depository: ZISP (St. Petersburg). Paralectotypes: Each syntypic specimen will be provided with a printed red label: Paralectotype / *Colias hyale* var. *sareptensis* Alphéraky, 1875 / *Trudy Russ. ent. Obshch.* 8: 153–154 / designated by J. Grieshuber, R. Worthy & G. Lamas, 2006. Furthermore, each specimen, except for the Staudinger syntypes, will be provided with a printed red label reading: Paralectotype / *Colias hyale* var. *meridionalis* Krulikowsky, 1903 / *Revue Russe Ent.* 3(5): 302 / designated by J. Grieshuber, R. Worthy & G. Lamas, 2006. A list of all syntypes so far identified, and material excluded from the type series, along with their complete data has been sent to, and is held by, the Commission Secretariat.

15. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *alfacariensis* Ribbe, 1905, as published in the trinomen *Colias hyale alfacariensis*, precedence over the names *sareptensis* Alphéraky, 1875, as published in the trinomen *Colias hyale sareptensis*, and *alba* Rühl, 1893, as published in the trinomen *Colias hyale alba*, and *meridionalis* Krulikowsky, 1903, as published in the trinomen *Colias hyale meridionalis*, whenever it and any of the other three are considered to be synonyms;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *sareptensis* Alphéraky, 1875, as published in the trinomen *Colias hyale sareptensis*, with the endorsement that it is not to be given priority over the name *alfacariensis* Ribbe, 1905, as published in the trinomen *Colias hyale alfacariensis*, whenever the two are considered to be synonyms;
 - (b) *alba* Rühl, 1893, as published in the trinomen *Colias hyale alba*, with the endorsement that it is not to be given priority over the name *alfacariensis* Ribbe, 1905, as published in the trinomen *Colias hyale alfacariensis*, whenever the two are considered to be synonyms;

- (c) *meridionalis* Krulikowsky, 1903, as published in the trinomen *Colias hyale meridionalis*, with the endorsement that it is not to be given priority over the name *alfacariensis* Ribbe, 1905, as published in the trinomen *Colias hyale alfacariensis*, whenever the two are considered to be synonyms;
- (3) to emend the entry on the Official List of Specific Names in Zoology for *alfacariensis* Ribbe, 1905, as published in the trinomen *Colias hyale alfacariensis*, to record that it is to be given precedence over *sareptensis* Alphéraky, 1875, as published in the trinomen *Colias hyale sareptensis*, *alba* Rühl, 1893, as published in the trinomen *Colias hyale alba*, and *meridionalis* Krulikowsky, 1903, as published in the trinomen *Colias hyale meridionalis*, whenever it and either of the other three names are considered to be synonyms.

References

- Alphéraky, S.N.** 1875–1878. Cheshuekrylyya (Lepidoptera) okrestnostei Taganroga [The Butterflies (Lepidoptera) of the environs of Taganrog (in Russian)]. *Trudy Russkago Entomologicheskago obshchestva*, **8**: 150–226 (1875); **10**: 35–53 (1876); **11**: 45–50 (1878).
- Alphéraky, S.N.** 1881–1883. Lépidoptères du district de Kouldjâ et des montagnes environnantes. *Horae Societatis Entomologicae Rossica*, **16**: 334–435, (1881); **17**: 15–103 (1882), 156–227 (1883).
- Alphéraky, S.N.** 1908. Cheshuekryle Okrenestei Taganroga [The Butterflies of the environs of Taganrog (in Russian)]. Supplément III. *Horae Societatis Entomologicae Rossica*, **38**: 558–618.
- Berger, L.A.** 1945a. Espèce nouvelle pour la Science. *Lambillionea*, **44**(1/12): 9–10.
- Berger, L.A.** 1945b. Rapport d'assemblée mensuelle du 3 février 1945. *Bulletin et Annales de la Société Royale Entomologique de Belgique*, **81**: 33–34.
- Berger, L.A. & Fontaine, M.** 1947–1948. Une espèce méconnue du genre *Colias* F. *Lambillionea*, **47**(11–12): 91–98 (1947); **48**(1–2): 12–15, (3–4): 21–24, (11–12): 90–110 (1948).
- Bienert, T.** 1870. *Lepidopterologische Ergebnisse einer Reise in Persien in den Jahren 1858 und 1859*. 56 pp. C.W. Vollrath, Leipzig.
- Bridges, C.A.** 1888. *Catalogue of Papilionidae & Pieridae* (Lepidoptera: Rhopalocera). 721 pp. in various paginations. Privately published, Urbana, Illinois.
- Butler, A.G.** 1880. On a collection of Lepidoptera from Candahar. *Proceedings of the Zoological Society of London*, **1880**: 403–415.
- Haworth, A.H.** 1802. *Prodromus Lepidopterorum Britannicorum. A Concise Catalogue of British Lepidopterous Insects, with the Times and Places of Appearance in the Winged State*. vi, 39, 6 pp. J. Parsler, London (Facsimile reprint, 1951).
- Horn, W., Kahle, I., Friese, G. & Gaedike, R.** 1990. *Collectiones entomologicae. Ein Kompendium über den Verbleib entomologischer Sammlungen der Welt bis 1960*. Part I, A–K: 1–220; Part II, L–Z: 221–573. Akademie der Landwirtschaftswissenschaften der Deutschen Demokratischen Republik, Berlin.
- Kirby, W.F.** 1872. Synonymic Notes on Lepidoptera. *Proceedings of the Entomological Society of London*, **19**: xliii–xlvi.
- Krulikowsky, L.K.** 1903. Notes pour servir à l'étude des Lépidoptères des la Sibérie occidentale et du Semiretshje (in Russian). *Revue Russe d'Entomologie*, **3**(5): 300–303.
- Le Cerf, F.** 1913. Contribution à la faune lépidoptérologique de la Perse (Catalogue des Rhopalocères). *Annales d'Histoire Naturelle. (Mémoires de la Délégation en Perse)*, **II**, Ent.(10): vii, 88 pp.
- Reissinger, E.J.** 1989. Die geographisch-subspezifische Gliederung von *Colias alfacariensis* Ribbe, 1905 unter Berücksichtigung der Migrationsverhältnisse (Lepidoptera, Pieridae). 3. Fortsetzung und Schluss. *Neue Entomologische Nachrichten*, **26**: 101–351.
- Ribbe, C.** 1905. Einige neue Formen von Schmetterlingen aus Andalusien. *Societas Entomologica*, **20**(18): 137–138.

- Rühl, F.** 1892–1893. *Die palaearktischen Grossschmetterlinge und ihre Naturgeschichte*. 1. Band Tagfalter: pp. 1–384. (pp. 385–857 continued by A. Heyne). Ernst Heyne, Leipzig.
- Staudinger, O.** 1871. Pp. xvi-xxxvii, 1–200, 347–382, 415–424 in Staudinger, O. & Wocke, M., *Catalog der Lepidopteren des europaeischen Faunengebiets, I: Macrolepidoptera*. (2nd edition). Staudinger, Burdach, Dresden.
- Tutt, J.W.** 1896. *British butterflies, being a popular handbook for young students and collectors*. 469 pp., 9 pls., 45 figs. George Gill & Sons, London.
- Tuzov, V.K., Bogdanov, P.V., Devyatkin, A.L., Kaabak, L.V., Korolev, V.A., Murzin, V.S., Samodurov, G.D. & Tarasov, E.A.** 1997. *Guide to the butterflies of Russia and adjacent territories* (Lepidoptera, Rhopalocera). Volume 1, HesperIIDae, Papilionidae, Pieridae, Satyridae. 480 pp., 79 pls. Pensoft, Sofia-Moscow.
- Whitebread, S.E., Rezbanyai-Rezer, L. & Geiger, H.** 1988. Case 2617. *Colias alfacariensis* Ribbe, 1905 (Insecta, Lepidoptera): proposed availability as a senior synonym of ‘*Colias australis* Verity, 1911’. *Bulletin of Zoological Nomenclature*, **45**(1): 29–32.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3339***Celaenorrhinus ratna* Fruhstorfer, 1908 (Insecta, Lepidoptera):
proposed conservation of the specific name**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Celaenorrhinus ratna* Fruhstorfer, 1908 for a widespread hesperiid butterfly, very common in the tropics. The name is threatened by a senior subjective synonym *Celaenorrhinus kawakamii* (Matsumura, 1907), which has not been catalogued or used since 1907. It is proposed that the name *ratna* Fruhstorfer, 1908 is conserved by suppression of *kawakamii* Matsumura, 1907.

Keywords. Nomenclature; taxonomy; HESPERIIDAE; *Celaenorrhinus ratna*; *Celaenorrhinus kawakamii*; hesperiid butterfly; Asia.

1. Matsumura (1907, p. 50) described *kawakamii* as a species of *Notocrypta* Nicéville, 1889 from Taiwan. Since 1907 the name *kawakamii* has never been catalogued or used by any author except Inomata et al. (2000) who suggested suppressing it, although they did not re-examine the types.

2. Fruhstorfer (1908, p. 49) described *Celaenorrhinus sumitra ratna* from Taiwan in a short article. A year later Fruhstorfer (1909, p. 135) assigned *ratna* to *Celaenorrhinus consanguinea* Leech, 1891. This assignment was followed by Fruhstorfer (1910, p. 61), Matsumura (1919, pl. 50, fig. 2; 1929, p. 34; 1931, p. 580), Seitz (1927, p. 1036), Evans (1926, p. 65; 1932, p. 324), Esaki (1931, p. 107; 1932, p. 158), Hirayama (1933, pl. 59, fig. 12) and Sonan (1936, p. 211). Evans (1949) treated *ratna* as a species of *Celaenorrhinus*, to which he assigned three subspecies (*ratna* Fruhstorfer, 1908, *tytleri* Evans, 1926 (p. 66) and *daphne* Evans, 1949 (p. 95)). This taxonomy has been accepted and used by subsequent authors, e.g. Okano & Okura (1959, p. 64), Shirôzu (1960, p. 380), Chen (1974, p. 282), Yamanaka (1980, p. 101), Bridges (1983, p. I.8), Hamano (1986, p. 254), Ae et al. (1987, p. 37), Smith (1989, p. 245; 1994, p. 245), Hsu (1990, p. 146; 1999, p. 16; 2002, p. 349), Chiba et al. (1992, p. 130), Haribal (1992,

p. 196), Uchida (1991, p. 212; 1995, p. 206), Chang (1993, p. 122), Chou (1994, p. 703; 1998, p. 271; 1999, p. 360), Lin (1994, p. 161; 2004, p. 260), Lee & Wang (1997, p. 41; 1999, p. 254; 2002, p. 292), Chang (1998, p. 354; 2000, p. 18), Watanabe (1998, p. 164) and Hsu et al. (in press).

3. Hsu et al. (in press) designated the lectotype of *Notocrypta kawakamii* Matsumura, 1907. The lectotype is housed in the Systematic Entomology Laboratory, Faculty of Agriculture, Hokkaido University of Japan (SEHU), and is conspecific with *Celaenorrhinus ratna* Fruhstorfer, 1908. The name *kawakamii* Matsumura, 1907 is therefore a senior subjective synonym of *ratna* Fruhstorfer, 1908.

4. *Celaenorrhinus ratna* is the most common *Celaenorrhinus* species in Taiwan (Okano & Okura, 1959; Hamano, 1986; Lin, 2004) and it has four currently recognized subspecies in India, the northwest Himalayan region (Evans, 1949) and southwestern China (Huang, 2001). *Celaenorrhinus* is the largest hesperiid genus in Taiwan (Hsu, 1990) and one of the largest genera in the world, distributed throughout the tropics (de Jong, 1982). Members of this genus are known to be very similar to one another and difficult to identify (Shirôzu, 1960; Hamano, 1986). To use the name *kawakamii* Matsumura, 1907 in place of its junior subjective synonym *ratna* Fruhstorfer, 1908 would involve a change in the name of a widespread species. The resurrection of the long-forgotten name *kawakamii* would cause unnecessary confusion in the taxonomic literature dealing with identifications within the genus *Celaenorrhinus* and would lead to nomenclatural instability. The name *kawakamii* was described after 1899, thus the conditions of Article 23.9.1.1 of the Code (Reversal of Precedence) are not met and a ruling by the Commission is needed for formal suppression of the name.

5. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the name *kawakamii* Matsumura, 1907, as published in the binomen *Notocrypta kawakamii*, for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Specific Names in Zoology the name *ratna* Fruhstorfer, 1908, as published in the trinomen *Celaenorrhinus sumitra ratna*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *kawakamii* Matsumura, 1907, as published in the binomen *Notocrypta kawakamii* and as suppressed in (1) above.

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References

- Ae, S.A., Hara, K., Harada, I., Harada, M., Ina, H., Nagami, K., Teshi, N. & Yamada, H. 1987. Butterflies collected by the entomological survey of the Japan Entomological Academy to Nepal Himalaya, 1982. *Bulletin of the Japan Entomological Academy*, **10**: 1–92.
- Bridges, C.A. 1983. *Catalogue of the Family-group, Genus-group and Species-group names of the Hesperiidae (Lepidoptera) of the World*. 590 pp. Bridges, Urbana.

- Chang, B.S.** 1993. *Identification of butterflies in Taiwan*. 149 pp. Vacation Publishing Co., Taipei.
- Chang, Y.J.** 1998. *Insects in color*, vol. 2. 413 pp. Yuan-Liou Publishing Co., Taipei.
- Chang, Y.J.** 2000. *Observing butterflies in Taiwan*. 171 pp. Morning Star Publishing Inc., Taipei.
- Chen, W.** 1974. *Butterflies of Taiwan in colour*. 353 pp. Chinese Culture Press, Taipei.
- Chiba, H., Hsu, Y.F. & Shirôzu, T.** 1992. HesperIIDae. Pp. 130–132 in Heppner, J.N. & Inoue, H., *Lepidoptera*, vol. 1, part 2: checklist. 49, 276 pp. Association for Tropical Lepidoptera, Gainesville.
- Chou, I.** 1994. *Monographia Rhopalocerorum Sinensium*. 854 pp. Henan Scientific and Technological Publishing House, Zhenzhou.
- Chou, I.** 1998. *Classification and identification of Chinese butterflies*. 349 pp., 90 pls. Henan Scientific and Technological Publishing House, Zhenzhou.
- Chou, I.** 1999. *Chinese butterflies in colour*. 385 pp. Henan Scientific and Technological Publishing House, Zhenzhou.
- Esaki, T.** 1931. On seven Formosan butterflies. *Zephyrus*, **3**: 104–112.
- Esaki, T.** 1932. A distributional note on Formosan butterflies. *Zephyrus*, **4**: 134–159.
- Evans, W.H.** 1926. The identification of Indian butterflies. *Journal of the Bombay Natural History Society*, **31**: 49–83.
- Evans, W.H.** 1932. *The identification of Indian butterflies*. 2nd edition. 10, 454 pp., 32 pls. Bombay Natural History Society, Madras.
- Evans, W.H.** 1949. *A Catalogue of the HesperIIDae from Europe, Asia and Australia in the British Museum (Natural History)*. 19, 502 pp. British Museum (Natural History), London.
- Fruhstorfer, H.** 1908. Lepidopterologisches Pêle-Mêle. I. Neue ostasiatische Rhopaloceren. *Entomologische Zeitschrift*, **22**: 48–49.
- Fruhstorfer, H.** 1909. Neue Hesperiden. *Entomologische Zeitschrift*, **23**: 135–139.
- Fruhstorfer, H.** 1910. Neue Hesperiden des Indo-Malayischen Faunengebietes und Besprechung verwandter Formen. *Deutsche Entomologische Zeitschrift (Iris)*, **24**: 58–104.
- Hamano, E.** 1986. *Ecological encyclopedia of Taiwanese butterflies*. 474 pp. Kodansha, Tokyo.
- Haribal, M.** 1992. *The butterflies of Sikkim and their natural history*. 217 pp. Sikkim Nature Conservation Foundation, Gangtok.
- Hirayama, S.** 1933. *Butterflies in colour*. 2, 8, 45 pp., 60 pls. Sanseido, Tokyo.
- Hsu, Y.F.** 1990. The genus *Celaenorrhinus* Hübner in Taiwan: a revisional work (Lepidoptera: HesperIIDae). *Bulletin of the Institute of Zoology, Academia Sinica*, **29**: 141–152.
- Hsu, Y.F.** 1999. *Butterflies of Taiwan*, vol. 1. 344 pp. Phoenix Park, Luku.
- Hsu, Y.F.** 2002. *Butterflies of Taiwan*, vol. 2. 383 pp. Phoenix Park, Luku.
- Hsu, Y.F., Chiba, H., Yang, Y.C., Tsukiyama, H., Yang, P.S. & Wang, S.M.** A taxonomic review of the Taiwanese skippers described by Shonen Matsumura (Lepidoptera: HesperIIDae). *Zoological Studies* (in press).
- Huang, H.** 2001. Report of H. Huang's 2000 expedition to S.E. Tibet for Rhopalocera. *Neue Entomologische Nachrichten*, **51**: 65–151.
- Inomata, T., Uémura, Y. & Yoshimoto, H.** 2000. Nomenclatural comments on the new species and replacement names of butterflies by Matsumura, 1907 and 1929. *Tyô to Ga*, **52**: 67–80.
- Jong, R. de.** 1982. Secondary sexual characters in *Celaenorrhinus* and the delimitation of the genus (Lepidoptera, HesperIIDae). *Journal of Natural History*, **16**: 695–705.
- Lee, J.Y. & Wang, H.Y.** 1997. *Illustrations of butterflies in Taiwan*, vol. 4. 317 pp. Taiwan Museum, Taipei.
- Lee, J.Y. & Wang, H.Y.** 1999. *Butterflies of Taiwan*. 268 pp. I-Lan County Museum of Natural History, Ilan.
- Lee, J.Y. & Wang, H.Y.** 2002. *Butterflies of Taiwan in color*. 303 pp. Owl Publisher, Taipei.
- Lin, C.C.** 1994. *The butterflies and nature of Taiwan*. 162 pp. Three Pigs Publisher, Ilan.
- Lin, C.C.** 2004. *Discover butterfly in Taiwan*. 335 pp. Green World Publisher, Ilan.
- Matsumura, S.** 1907. Notes on the butterflies of Niitakayama. *Insect world*, **11**: 5–8, 47–50.
- Matsumura, S.** 1919. *Thousand Insects of Japan (Additamenta)*, vol. 3. Pp. 1–2, 457–742, 1–34, pls. 26–53. Keiseisha, Tokyo.

- Matsumura, S.** 1929. *Illustrated Common Insects of Japan*, vol. 1. Butterflies. 45, 66, 37 pp., 16 pls. Shunyodo, Tokyo.
- Matsumura, S.** 1931. *6000 Illustrations of the Insects of the Japanese Empire*. 1497, 23 pp., 10 pls. Toukoushoin, Tokyo.
- Okano, M. & Okura, J.** 1959. *Butterflies of Formosa*. 12, 65, 16, 12 pp., 64 pls. Taniguchi Shoten, Tokyo.
- Seitz, A.** 1927. *The Macrolepidoptera of the World*, vol. 9. The Indo-Australian Rhopalocera. 8, 1197 pp., 175 pls. Alfred Kernien, Stuttgart.
- Shirôzu, T.** 1960. *Butterflies of Formosa in colour*. 481 pp. Hoikusha, Osaka.
- Smith, C.** 1989. *Butterflies of Nepal*. 352 pp. Tecpress Service, Bangkok.
- Smith, C.** 1994. *Butterflies of Nepal, revised edition*. 368 pp. Tecpress Service, Bangkok.
- Sonan, J.** 1936. Notes on some butterflies from Formosa (4). *Zephyrus*, **6**: 205–216.
- Uchida, H.** 1991. *Charms of Formosa, Island of Everlasting Summer*. 216 pp. Uchida, Mumazu.
- Uchida, H.** 1995. *An everlasting island with beautiful butterflies*. 208 pp. Uchida, Mumazu.
- Watanabe, Y.** 1998. *Butterflies of China*. 255 pp. Tombow Publishing Co., Osaka.
- Yamanaka, M.** 1980. Distribution of Formosan butterflies (6). *Tyô to Ga*, **30**, suppl. **1**: 1–141.

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Case 3342***Phalaena croesella* Scopoli, 1763 (currently *Adela croesella*; Insecta, Lepidoptera): proposed conservation of usage of the specific name**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the widely used specific name *Phalaena croesella* Scopoli, 1763 (currently *Adela croesella*) for a common European fairy moth (family ADELIDAE) by designating a neotype. The current use of the name *P. croesella* is based on a misidentification and this makes it a junior subjective synonym of *Phalaena degeerella* Linnaeus, 1758 (currently *Nemophora degeerella*). It is proposed that all previous type fixations for *Phalaena croesella* Scopoli, 1763 are set aside and a neotype is designated.

Keywords. Nomenclature; taxonomy; ADELIDAE; *Phalaena*; *Adela*; *Adela croesella*; *Nemophora degeerella*; fairy moth; Europe.

1. Scopoli (1763, p. 251) described and figured *Phalaena croesella* from Idrija, Slovenia. The type material is lost and to the best of my knowledge no neotype has ever been designated. The name *P. croesella* (currently *Adela croesella*) is currently used for a common European fairy moth species, resembling in wing pattern *Phalaena (Tinea) degeerella* Linnaeus, 1758 (p. 540) (currently *Nemophora degeerella*) (see Heath & Pelham-Clinton, 1976; Razowski, 1978; Zaguljaev, 1978; Wojtusiak, 1996). During 1871–2004 the name *P. croesella* was consistently used in at least 180 publications, including all major guide books and catalogues (reference list is available from the Commission Secretariat). The original description of *P. croesella* indicates that it is larger ('long. lin. 2') than *P. degeerella* ('long. lin. 2'), has 'violaceae' wings (*P. degeerella*: 'nigrae'), and 'longissimae' antennae (*P. degeerella*: 'longae'). The species that is currently recognised as *Adela croesella* is smaller than *N. degeerella* (wingspan 11–14 mm versus 17–23 mm in *N. degeerella*: see Heath & Pelham-Clinton, 1976), has relatively shorter male antennae and darker fore wings with prominent copper lustre. This contradicts the original description and indicates that the current use of the name *P. croesella* is based on a misidentification.

2. Among fairy moths inhabiting Slovenia (list for the former Yugoslavia given by Wojtusiak, 1996) only *Nemophora degeerella* and *Adela croesella* correspond to the description of wing pattern given by Scopoli (1763). It is likely that Scopoli (1763) erroneously identified the species currently known under the name *Adela croesella* as *Phalaena degeerella*, and described true *Phalaena degeerella* as *Phalaena croesella*. The figure of *Phalaena croesella* published by Scopoli (1763) fits better to *Phalaena degeerella*. Thus *Phalaena croesella* Scopoli, 1763 is a junior subjective synonym of *Phalaena degeerella* Linnaeus, 1758.

3. Goeze (1783, p. 146) and de Villers (1789, pp. 510–511), were, to the best of my knowledge, the only authors who used *Phalaena croesella* as the valid name before Zincken (Charpentier & Zincken, 1821, p. 159) unequivocally synonymised *P. croesella* with *N. degeerella*. This synonymy was accepted by Treitschke (1833, p. 131), Duponchel (1838, p. 360), Fischer von Rösslerstamm (1840, p. 189), Zeller (1853, p. 30) and many others. Frey (1880, p. 342) was the last author who referred to this synonymy.

4. Denis & Schiffermüller (1775, p. 143), Hübner (1796, pl. 18, fig. 121) and subsequently several other researchers used the name *P. sulzella* (an incorrect subsequent spelling of *Phalaena sultzella* Linnaeus, 1767 (p. 896)) for the species currently known as *Adela croesella*. However, this was also a misidentification. *Phalaena sultzella* Linnaeus, 1767 is a junior subjective synonym of *Phalaena degeerella* Linnaeus, 1758 (Fabricius, 1775, p. 669). The type material of *Phalaena sultzella* is lost (Robinson & Nielsen, 1983, p. 232).

5. Fabricius (1775, p. 669) used the name *Phalaena podaella* Linnaeus, 1767 (p. 896), which he assigned to his new genus *Alucita*, for the species nearest to *Phalaena degeerella*. However, this taxonomic decision was not followed by subsequent authors, although the name *P. podaella* was sometimes listed among the synonyms of *P. croesella*. Razowski (1978, p. 73) is probably the last author who referred to this synonymy. The type specimens of *P. podaella* have not been discovered in the Linnaean collection (Robinson & Nielsen, 1983, p. 224), and identity of this species remains unclear. Although *Phalaena podaella* Linnaeus, 1767 is the oldest available name for the species currently known as *Phalaena croesella*, it has not been used as a valid name for nearly two centuries, and should be considered a nomen oblitum under Article 23.9.1.1.

6. Esper (1791, pp. 49–51, tab. 2, fig. 3) described *Sphinx fasciata* on the basis of two females from Lyon, France. This name was synonymized with *Phalaena sulzella* by Charpentier (Charpentier & Zincken, 1821, p. 158) and had never been used later as a valid name for the species in question; it should be considered a nomen oblitum under Article 23.9.1.1.

7. Zeller (1839, p. 186) replaced the name *P. sultzella* Linnaeus (spelt *sulzella*) with *Adela (Eutyphia) sulzeriella* without explaining the reason. This replacement was followed in particular by Herrich-Schäffer (1855, p. 103, pl. 32, fig. 227). In contrast, Wocke (1861, p. 108) used the name *P. sulzella*, attributed to Denis & Schiffermüller (1775), and listed both *Adela degeerella* (sensu Scopoli, 1763) and *Adela sulzeriella* Zeller, 1839 as synonyms of *P. sulzella*. Although the name *Adela (Eutyphia) sulzeriella* Zeller, 1839, is also available for the species currently known as *P. croesella*, it has not be used as a valid name after 1899, and should be considered a nomen oblitum under Article 23.9.1.1.

8. Werneburg (1864, p. 239) did not accept the synonymy established by Zincken (in Charpentier & Zincken, 1821, p. 159) and listed *P. croesella* as a valid name. Wocke (1871, p. 274) only partially accepted Werneburg's argument and used *P. croesella* as the valid name for the species next to *P. degeerella*, but listed specimens described by Scopoli (1763) as *Adela degeerella* Linnaeus, 1758 and *Adela sulzeriella* Zeller, 1839 among the synonyms of *Phalaena croesella*. Subsequent major catalogues (Rebel, 1901, p. 245; Meyrick, 1912a, p. 9; Meyrick, 1912b, p. 11) accepted this decision and apparently influenced subsequent use of the name *Phalaena croesella* for

the species distinct from *Phalaena degeerella*. However, the current use of the name *P. croesella* is based on a misidentification, and *Phalaena croesella* Scopoli, 1763 is a junior subjective synonym of *Phalaena degeerella* Linnaeus, 1758. No other names are available for the taxon in question.

9. I propose that the existing usage of the specific name *Phalaena croesella* Scopoli, 1763 is maintained by designating a neotype for *P. croesella*. The most suitable specimen for the neotype is deposited in the Natural History Museum, London, and bears two labels: 5 × 7 mm, black ink 'Croat.[ia] | Man[n]'; 8 × 10 mm, black ink and print 'Zeller Coll. Walsingham Collection 1910–427'.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the nominal species *croesella* Scopoli, 1763, as published in the binomen *Phalaena croesella*, and to designate the specimen proposed in para. 9 above as neotype;
- (2) to place on the Official List of Specific Names in Zoology the name *croesella* Scopoli, 1763, as published in the binomen *Phalaena croesella* and as defined by the neotype designated in (1) above.

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References

- Charpentier, T. von & Zincken, J.L.T.F.** 1821. *Die Zinsler, Wickler, Schaben und Geistchen des Systematischen Verzeichnisses der Schmetterlinge der Wiener Gegend, vergleichen mit den in der Schiffermüllerschen Sammlung in Wien befindlichen*. 178 pp. Braunschweig.
- Denis, J.N.C.M. & Schiffermüller, I.** 1775. *Ankündigung eines systematischen Werkes von den Schmetterlingen der Wienergegend*. 323 pp., 3 pls. Wien.
- Duponchel, P.P.J.** 1838. Nocturnes. In Godart, J.B. & Duponchel, P.P.J., *Histoire naturelle des Lépidoptères ou Papillons de France*. 720 pp., 8 pls. Paris.
- Esper, E.J.C.** 1791. Beschreibung einiger der prächtigsten Schmetterlinge von den kleinsten Arten, nach ihrer vergrößerten Abbildung. *Naturforscher*, **25**: 39–51.
- Fabricius, J.C.** 1775. *Systema entomologiae, sistens Insectorum classes, ordines, genera, species, adiectis synonymis, locis, descriptionibus, observationibus*. [32], 832 pp. Flensburgi et Lipsiae.
- Fischer von Röslerstamm, J.E.** 1834–[1843]. *Abbildungen zur Berichtigung und Ergänzung der Schmetterlingkunde, besonders der Microlepidopterologie, als Supplement zu Treitschke's und Hübner's europäischen Schmetterlingen, mit erläuterndem Text*. 304 pp., 100 pls. Leipzig.
- Frey, H.** 1880. *Die Lepidopteren der Schweiz*. xxvi, 454 pp. Leipzig.
- Goeze, J.A.E.** 1783. *Entomologische Beyträge zu des Ritter Linne' zwölften Ausgabe des Natursystems*. Th. 3, Bd. 4. xx, 178 pp. Wiedmanns Erben und Reich, Leipzig.
- Heath, J. & Pelham-Clinton, E.C.** 1976. Incurvariidae. Pp. 277–300 in Heath, J. (Ed.), *The moths and butterflies of Great Britain and Ireland*, vol. 1. Blackwell, Oxford.
- Herrich-Schäffer, G.A.W.** [1847]–1855. *Systematische Bearbeitung der Schmetterlinge von Europa, 5. Die Schaben und Federmotten*. 394 pp., 124 pls. Regensburg.
- Hübner, J.** 1796–[1836]. *Sammlung europäischer Schmetterlinge. VIII. Tineidae—Schaben*. 78 pp., 71 pls. Augsburg.
- Linnaeus, C.** 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.

- Linnaeus, C.** 1767. *Systema Naturae*, Ed. 12, vol. 1, part 2. Pp. 533–1327. Salvii, Holmiae.
- Meyrick, E.** 1912a. *Lepidoptera Heterocera (Tineae). Fam. Adelidae*. 12 pp., 1 pl. Bruxelles.
- Meyrick, E.** 1912b. Adelidae, Micropterygidae, Gracilariidae [sic]. *Lepidopterorum Catalogus*, **6**: 1–68.
- Razowski, J.** 1978. *Heteroneura, Adeloidea*. 137 pp., 11 pls. Warszawa [Monografie fauny Polski, T. 8. Motyle (Lepidoptera) Polski, Cz. III].
- Rebel, H.** 1901. *Catalog der Lepidopteren des palaearktischen Faunengebietes. Th. II: Fam. Pyralidae – Micropterygidae*. 368 pp. Berlin.
- Robinson, G.S. & Nielsen, E.S.** 1983. The Microlepidoptera described by Linnaeus and Clerck. *Systematic Entomology*, **8**: 191–242.
- Scopoli, I.P.** 1763. *Entomologia Carniolica exhibens insecta Carnioliae indigena et distributa in ordinibus, generis, species, varietates. Methodo Linnaeana*. 36, 421 pp. Vindobonae.
- Treitschke, F.** 1833. *Die Schmetterlinge von Europa*, vol. 9. 294 pp. Leipzig.
- Villers, C. de.** 1789. *Caroli Linnaei Entomologia, Fauna Suecicae descriptionibus aucta . . .*, vol. 2. xvi, 656 pp., 6 pls. Lugduni.
- Werneburg, P.** 1864. *Beiträge zur Schmetterlingskunde. Kritische Bearbeitung der wichtigsten entomologischen Werke des 17. und 18. Jahrhunderts bezüglich der darin abgehandelten Europäischen Schmetterlinge*. Vol. 1, viii, 600 pp.; vol. 2, iv, 350 pp. Erfurt.
- Wocke, M.F.** 1861. Microlepidoptera. Pp. 85–192 in Staudinger, O. & Wocke, M.F., *Catalogue des Lépidoptères d'Europe*. Dresden.
- Wocke, M.F.** 1871. Microlepidoptera. Pp. 201–346 in Staudinger, O. & Wocke, M.F., *Catalogue ou Énumération Méthodique des Lépidoptères qui habitent le territoire de la Faune Européenne*. Dresden.
- Wojtusiak, J.** 1996. Adelidae. Pp. 28–29 in Karsholt, O. & Razowski, J. (Eds.), *The Lepidoptera of Europe: a distributional checklist*. Apollo Books, Stenstrup, Denmark.
- Zaguljaev, P.K.** 1978. Fam. Adelidae – long-horn moths. Pp. 92–112 in Medvedev, G.S. (Ed.), *Opredelitel nasekomykh evropeiskoi chasti SSSR*. Tom IV. Cheshuekrylye. Pervaya chast. [Key for determination of insects of the European part of the USSR, vol. IV, Lepidoptera, part 1]. Leningrad. [In Russian].
- Zeller, P.C.** 1839. Versuch einer naturgemässen Einteilung der Schaben. *Isis von Oken*, **23**: 167–219.
- Zeller, P.C.** 1853. Sieben Tineaceen – Gattungen. *Linnaea Entomologica*, **8**: 1–87.

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Case 3344***Pseudorthocladius* Goetghebuer, 1943 and *Mesosmittia* Brundin, 1956 (Insecta, Diptera, CHIRONOMIDAE): proposed conservation of the generic names**

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Abstract. The purpose of this application, under Articles 23.4 and 23.9.3 of the Code, is to conserve the generic names *Pseudorthocladius* Goetghebuer, 1943 and *Mesosmittia* Brundin, 1956 for two widespread genera of non-biting midges by the suppression of *Pseudorthocladius* Edwards, 1932. *Pseudorthocladius* Edwards, 1932 is a senior homonym of *Pseudorthocladius* Goetghebuer, 1943, but has not been used for the last 50 years, being replaced with *Mesosmittia* Brundin, 1956. It is proposed that the replacement of *Pseudorthocladius* Edwards, 1932 with *Mesosmittia* Brundin, 1956 is accepted.

Keywords. Nomenclature; taxonomy; CHIRONOMIDAE; *Pseudorthocladius*; *Mesosmittia*; *Pseudorthocladius curtistylus*; *Mesosmittia flexuella*; non-biting midges.

1. Goetghebuer (1932, p. 93) proposed *Pseudorthocladius* as the name of a new subgenus in the genus *Orthocladius* van der Wulp, 1874, to include three nominal species of non-biting midges (family CHIRONOMIDAE): *Spaniotoma* (*Orthocladius*) *flexuella* Edwards, 1929 (p. 349); *Psectrocladius curtistylus* Goetghebuer, 1921 (p. 101); and *Psectrocladius filiformis* Kieffer, 1908. No type species was fixed for *Pseudorthocladius* Goetghebuer, 1932, which is therefore a nomen nudum (Article 13.3).

2. Edwards (1932a, p. 141), in a literature review of Goetghebuer's (1932) work, published the statement: 'Four new subgeneric names are introduced by Dr. Goetghebuer, but for three of these type-species are not indicated; I hereby designate the following: . . . *Pseudorthocladius*, **S. flexuella* Edw. . . .' (names of other taxa omitted for clarity). Edwards (1932a) included no other species in *Pseudorthocladius*; the two additional species placed there by Goetghebuer (1932) he assigned to a different taxon. In this classification, largely carried over from Edwards (1929), *Pseudorthocladius* was not given subgeneric rank as in Goetghebuer (1932), but corresponded to *Spaniotoma* (*Orthocladius*) 'Group E' sensu Edwards (1929, p. 349). Likewise, *Psectrocladius curtistylus* Goetghebuer (see para. 3) – misrepresented as '*Dactylocladius curtistylus* Goet.' – was placed in 'Group F' of *Spaniotoma* (*Orthocladius*), 'which might bear the name *Spaniotoma*' (Edwards, 1932a, p. 141). This system ignored the Principle of Coordination (Edwards, 1929, p. 308, footnote): the previously unused name *Spaniotoma* Philippi, 1865 was reintroduced for a genus including *Orthocladius* as a subgenus, but there was no nominotypical subgenus *Spaniotoma* (*Spaniotoma*), and the subfamily was called 'Orthocladiinae'.

Moreover, several previously available genus-group names were not necessarily used as valid in the sense of the Code, but were presented in more or less tentative association (see the above quote from Edwards, 1932a, concerning 'Group F') with Edwards' own lettered group terms; for example, '(*Dactylocladius*, Kieff.)' was set in a separate line underneath the text section title 'Group D' in *Spaniotoma* (*Orthocladius*) (Edwards, 1929, p. 346). Edwards (1932b), published about one month after Edwards (1932a), repeated this classification: the 'type of the new subgenus *Pseudorthocladius* Goetghebuer' was treated under the name '*Spaniotoma* (*Orthocladius*) *flexuella* Edw.', and placed in 'a special section of *Orthocladius* for this species alone'.

3. Goetghebuer (1943 in 1940–1950, p. 73; for publication dates of the successive instalments of this work see Evenhuis, 1997, p. 461) treated the name and systematic placement of *Pseudorthocladius* after Goetghebuer (1932), but this time gave *Psectrocladius curtistylus* Goetghebuer as the 'genotype', and transferred *Spaniotoma flexuella* Edwards to the genus *Limnophyes* Eaton, 1875 (op. cit., 1944, p. 134). In doing so, Goetghebuer apparently was unaware of Edwards' (1932a, 1932b) publications; there is no reference to them in Goetghebuer (1940–1950), and a note given under *L. flexuella* (op. cit., 1944, p. 134) clearly refers to the treatment of the species in Edwards (1929) rather than in Edwards (1932a, 1932b). Under these circumstances, Goetghebuer's (1943 in 1940–1950) treatment of *Pseudorthocladius* may be seen as the effective (though unintentional) establishment of a separate available name.

4. Until 1951, most authors publishing on the taxa in question made no reference whatsoever to Edwards' (1932a, 1932b) works, and derived their nomenclature and taxonomic concepts from those of Goetghebuer (1932 or 1940–1950, respectively) (see, e.g. Thienemann & Krüger, 1939; Thienemann, 1944; Brundin, 1949; Hennig, 1950; Strenzke, 1950). On the other hand, Coe (1945, 1950) followed Edwards, and Laurence (1951) argued that *Pseudorthocladius* Edwards took precedence over *Pseudorthocladius* Goetghebuer by virtue of the type designation in Edwards (1932a). He proposed '*Pseudokiefferiella* sub-genus nov.' for *Pseudorthocladius* Goetghebuer, but that substitute name was preoccupied by *Pseudokiefferiella* Zavřel, 1941 (see Spies & Sæther, 2004, pp. 19–20). Freeman (1953) and Thienemann (1954), although aware of Laurence's (1951) arguments, chose to maintain and use *Pseudorthocladius* Goetghebuer.

5. Brundin (1956, pp. 138–139) reviewed the conflicting uses of *Pseudorthocladius* and related names, but the solution he proposed was guided more by taxonomic considerations than by rules of nomenclature. In following most of Goetghebuer's (1940–1950) rather than Edwards' (1929, 1932a) classification – especially concerning Edwards' peculiar treatment of *Spaniotoma* – Brundin (1956, pp. 137–139) used *Pseudorthocladius* Goetghebuer, 1943 instead of *Pseudorthocladius* Edwards, 1932 and replaced the latter by a new name, *Mesosmittia* Brundin, 1956 (p. 163), with the same type species as in Edwards (1932a, 1932b).

6. Since Brundin (1956), his basic definitions of the two genera in question and the names he applied to the latter have been used unanimously: in all applicable catalogues of Chironomidae taxa (e.g. Freeman & Cranston, 1980; Ashe, 1983; Ashe & Cranston, 1990; Oliver, Dillon & Cranston, 1990; Spies & Reiss, 1996), standard keys (e.g. Wiederholm, 1983, 1986, 1989; Langton, 1991; Sæther et al., 2000),

pertinent revisions (Sæther & Sublette, 1983; Sæther, 1986; Andersen & Mendes, 2002), etc. The genus treated under the name '*Pseudorthocladius* Goetghebuer' presently includes about 35 nominal species, and has been reported from all zoogeographic world regions except Australia and the Antarctic (e.g. Sæther & Andersen, 1996; Chaudhuri et al., 2001; Roque et al., 2003). Members of '*Mesosmittia* Brundin' are known from the Holarctic, Afrotropical and Neotropical regions; currently there are 14 named species (Andersen & Mendes, 2002). Some authors have credited *Pseudorthocladius* to Goetghebuer (1932) rather than to Goetghebuer (1943) and some details of the synonymies and explanations given have varied, but the present applicant is unaware of any post-1956 publication that would constitute an exception to the universal use of *Pseudorthocladius* Goetghebuer and *Mesosmittia* Brundin, and disuse of *Pseudorthocladius* Edwards. Several authors have commented that this usage is not in accordance with the Code and that a ruling by the Commission is necessary (e.g. Cranston, 1975; Ashe, 1983; Sæther & Sublette, 1983; Andersen & Mendes, 2002). However, no corresponding application has previously been submitted.

7. To use *Pseudorthocladius* Edwards in place of *Mesosmittia*, and to establish a substitute name for *Pseudorthocladius* Goetghebuer, would represent the most destabilizing and confusing kind of nomenclatural change: the switching of a scientific name in widespread use for one taxonomic concept to a different concept for which another name has also been in common use. However, only one of the two conditions for Reversal of Precedence (Article 23.9) is met. *Pseudorthocladius* Goetghebuer, 1943 and *Mesosmittia* Brundin, 1956 are in prevailing usage for the last 50 years as presumed valid names (Article 23.9.1.2). However, the senior homonym *Pseudorthocladius* Edwards, 1932 was established after 1899 and hence does not qualify as a nomen oblitum (Article 23.9.1.1).

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the generic name *Pseudorthocladius* Edwards, 1932 for the purposes of both the Principle of Priority and the Principle of Homonymy;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Pseudorthocladius* Goetghebuer, 1943 (gender: masculine), type species by original designation *Psectrocladius curtistylus* Goetghebuer, 1921;
 - (b) *Mesosmittia* Brundin, 1956 (gender: feminine), type species by original designation and monotypy *Spaniotoma* (*Orthocladius*) *flexuella* Edwards, 1929;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *curtistylus* Goetghebuer, 1921, as published in the binomen *Psectrocladius curtistylus* (specific name of the type species of *Pseudorthocladius* Goetghebuer, 1943);
 - (b) *flexuella* Edwards, 1929, as published in the binomen *Spaniotoma* (*Orthocladius*) *flexuella* (specific name of the type species of *Mesosmittia* Brundin, 1956);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Pseudorthocladius* Edwards, 1932, as suppressed in (1) above.

References

- Andersen, T. & Mendes, H.F. 2002. Neotropical and Mexican *Mesosmittia* Brundin, with the description of four new species (Insecta, Diptera, Chironomidae). *Spixiana*, **25**: 141–155.
- Ashe, P. 1983. A catalogue of chironomid genera and subgenera of the world including synonyms (Diptera: Chironomidae). *Entomologica Scandinavica Supplement*, **17**: 1–68.
- Ashe, P. & Cranston, P.S. 1990. Family Chironomidae. Pp. 113–355 in Soós, A. & Papp, L. (Eds.), *Catalogue of Palaearctic Diptera*, vol. 2. 499 pp. Akadémiai Kiadó, Budapest.
- Brundin, L. 1949. Chironomiden und andere Bodentiere der südschwedischen Urgebirgsseen. Ein Beitrag zur Kenntnis der bodenfaunistischen Charakterzüge schwedischer oligotropher Seen. *Reports from the Institute of Freshwater Research, Drottningholm*, **30**: 1–914.
- Brundin, L. 1956. Zur Systematik der Orthocladiinae (Dipt., Chironomidae). *Reports from the Institute of Freshwater Research, Drottningholm*, **37**: 5–185.
- Chaudhuri, P.K., Hazra, N. & Alfred, J.R.B. 2001. A checklist of chironomid midges (Diptera: Chironomidae) of the Indian subcontinent. *Oriental Insects*, **35**: 335–372.
- Coe, R.L. 1945. Chironomidae. Pp. 334–340 in Kloet, G.S. & Hincks, W.D. (Eds.), *A check list of British insects*. 59, 483 pp. Kloet & Hincks, Stockport, U.K.
- Coe, R.L. 1950. Family Chironomidae. Pp. 121–206 in Coe, R.L., Freeman, P. & Mattingly, P.F. (Eds.), *Handbooks for the identification of British insects*, vol. 9, part 2. 216 pp. Royal Entomological Society of London, London.
- Cranston, P.S. 1975. Corrections and additions to the list of British Chironomidae (Diptera). *Entomologist's Monthly Magazine*, **110**: 87–95.
- Edwards, F.W. 1929. British non-biting midges (Diptera, Chironomidae). *Transactions of the Royal Entomological Society of London*, **77**: 279–430.
- Edwards, F.W. 1932a. Recent literature. Faune de France: 23. Diptères: Chironomidae, IV. Par M. Goetghebuer. Paris (Lechevalier), 1932. *The Entomologist*, **65**: 140–141.
- Edwards, F.W. 1932b. The female of *Spaniotoma* (*Orthocladus*) *flexuella* Edw. *The Entomologist*, **65**: 167.
- Evenhuis, N.L. 1997. *Litteratura taxonomica dipterorum (1758–1930)*, 2 vols. 10, 871 pp. Backhuys, Leiden.
- Freeman, P. 1953. Chironomidae (Diptera) from Western Cape province – I. *Proceedings of the Royal Entomological Society of London*, **22**: 127–135.
- Freeman, P. & Cranston, P.S. 1980. Family Chironomidae. Pp. 175–202 in Crosskey, R.W. (Ed.), *Catalogue of the Diptera of the Afrotropical Region*. 1437 pp. British Museum (Natural History), London.
- Goetghebuer, M. 1921. Chironomides de Belgique et spécialement de la zone des Flandres. *Mémoires du Musée royal d'histoire naturelle de Belgique*, **8**(4): 1–211.
- Goetghebuer, M. 1932. Diptères (Nématocères), Chironomidae IV. Orthocladiinae, Corynoneurinae, Clunioninae, Diamesinae. *Faune de France*, **23**: 1–204.
- Goetghebuer, M. 1940–1950. Tendipedidae (Chironomidae). f) Subfamille Orthocladiinae. A. Die Imagines. In Lindner, E. (Ed.), *Die Fliegen der palaarktischen Region*, vol. 3, family 13g. 208 pp., 24 pls. E. Schweizerbart, Stuttgart.
- Hennig, W. 1950. *Die Larvenformen der Dipteren*, vol. 2. vii, 458 pp., 10 pls. Akademie-Verlag, Berlin.
- Langton, P.H. 1991. *A key to pupal exuviae of West Palaearctic Chironomidae*. 386 pp. P.H. Langton, Huntingdon, U.K.
- Laurence, B.R. 1951. On two neglected type designations in the genus *Hydrobaenus* Fries, 1830. *Entomologist's Monthly Magazine*, **86**: 164–165.
- Oliver, D.R., Dillon, M.E. & Cranston, P.S. 1990. *A catalog of Nearctic Chironomidae*. 89 pp. Agriculture Canada Research Branch, Publication 1857/B.
- Roque, F.O., Trivinho-Strixino, S., Yamada, M.V. & Penteado-Dias, A.M. 2003. A preliminary survey of Chironomidae (Insecta: Diptera) in a heterogeneous landscape of Jaraguá State Park, São Paulo, Brazil. *Biotemas*, **16**: 67–78.
- Sæther, O.A. 1986 ('1985'). The imagines of *Mesosmittia* Brundin, 1956, with the description of seven new species (Diptera, Chironomidae). *Spixiana Supplement*, **11**: 37–54.
- Sæther, O.A. & Andersen, T. 1996. First Afrotropical records of the genera *Doithrix* Sæther et Sublette and *Georthocladus* Strenzke (*Toyamayusurika* Sasa et Kawai, syn. nov.)

- (Diptera: Chironomidae), with new combinations in the *Pseudorthocladius* group. *Tijdschrift voor Entomologie*, **139**: 243–256.
- Sæther, O.A., Ashe, P. & Murray, D.A.** 2000. Family Chironomidae. Pp. 113–334 in Papp, L. & Darvas, B. (Eds.), *Contributions to a manual of Palaearctic Diptera (with special reference to the flies of economic importance)*, Appendix vol. 604 pp. Science Herald, Budapest.
- Sæther, O.A. & Sublette, J.E.** 1983. A review of the genera *Doithrix* n. gen., *Georthocladius* Strenzke, *Parachaetocladus* Walker, and *Pseudorthocladius* Goetghebuer (Diptera: Chironomidae, Orthocladiinae). *Entomologica scandinavica Supplement*, **20**: 1–100.
- Spies, M. & Reiss, F.** 1996. Catalog and bibliography of Neotropical and Mexican Chironomidae (Insecta, Diptera). *Spixiana Supplement*, **22**: 61–119.
- Spies, M. & Sæther, O.A.** 2004. Notes and recommendations on taxonomy and nomenclature of Chironomidae (Diptera). *Zootaxa*, **752**: 1–90.
- Strenzke, K.** 1950. Systematik, Morphologie und Ökologie der terrestrischen Chironomiden. *Archiv für Hydrobiologie, Supplement-Band*, **18**: 207–414.
- Thienemann, A.** 1944. Bestimmungstabellen für die bis jetzt bekannten Larven und Puppen der Orthocladiinen (Diptera, Chironomidae). *Archiv für Hydrobiologie*, **39**: 551–664.
- Thienemann, A.** 1954. Chironomus. Leben, Verbreitung und wirtschaftliche Bedeutung der Chironomiden. *Die Binnengewässer*, **20**: 1–834.
- Thienemann, A. & Krüger, F.** 1939. Terrestrische Chironomiden. II. *Zoologischer Anzeiger*, **127**: 246–258.
- Wiederholm, T. (Ed.)** 1983. Chironomidae of the Holarctic region. Keys and diagnoses. Part 1. Larvae. *Entomologica scandinavica Supplement*, **19**: 1–457.
- Wiederholm, T. (Ed.)** 1986. Chironomidae of the Holarctic region. Keys and diagnoses. Part 2. Pupae. *Entomologica scandinavica Supplement*, **28**: 1–482.
- Wiederholm, T. (Ed.)** 1989. Chironomidae of the Holarctic region. Keys and diagnoses. Part 3. Adult males. *Entomologica scandinavica Supplement*, **34**: 1–532.

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Case 3373***Ateles geoffroyi* (Mammalia, Primates): proposed attribution of authorship to Kuhl, 1820**

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Abstract. The purpose of this application, under Article 50.1 of the Code, is to validate the common but incorrect attribution of the name *Ateles geoffroyi* to Kuhl (1820). This is a longstanding error perpetuated in the primate literature and it is proposed that the attribution of the name to Kuhl (1820) be validated.

Keywords. Nomenclature; taxonomy; *Ateles*; *Ateles geoffroyi*; *Ateles melanochir*; Kuhl; Nicaragua; spider monkey.

1. The generic name *Ateles* was introduced by E. Geoffroy St. Hilaire (1806, p. 269). He attributed five species to it, of which three were spider monkeys from South America (including the type species, *Simia paniscus* Linnaeus, 1766); one was the Muriqui or woolly spider monkey, now referred to a separate genus *Brachyteles*; the fifth was an African colobus monkey, referred to *Ateles* only with considerable misgivings and later (Geoffroy, 1812) excluded from the genus.

2. What was effectively the first spider monkey from Central America was described by Desmarest (1820, p. 76) as *Ateles melanochir*. Desmarest said merely that it was 'An undescribed new species, from the collection of the MNHN of Paris' but Rode (1938, p. 28) recorded the animal as having died in 1819 in the Ferrand Menagerie. The original locality of the specimen was unknown; it was fixed by Kellogg & Goldman (1944) as San Juan del Norte, Nicaragua, though the validity of this fixation has never been tested by examination of the type specimen, which is still in the collection of the Muséum National d'Histoire Naturelle, Paris.

3. In the same year, Kuhl (1820, p. 26) described a spider monkey from a specimen 'In Museo Parisiensi', which from his description (in Latin) is evidently the same specimen described by Desmarest (1820). His heading is '*Ateles* Geoffroy. mihi species inedita' – meaning that it belongs to the genus *Ateles* Geoffroy, but is of a species 'unknown to me'. It is interesting that, a few lines earlier, he described a new species, *Ateles fuliginosus*, and compared it to '*Atelem* Geoffroyi versis' ('Geoffroy's *Ateles*, below'); nonetheless, the description being in Latin, there is no indication that he intended to describe a species as *Ateles geoffroyi*. Kuhl's book was evidently published earlier in 1820 than Desmarest's, because Desmarest refers in his introduction to following the observations of recent naturalists including Kuhl, and

also on page 72 to *A. hypoxanthus* as a 'new species distinguished by M le docteur Kuhl'.

4. Under *Cebus geoffroyi*, Fischer (1829, p. 40) attributed the name *Ateles geoffroyi* to Kuhl, with *Ateles melanochir* Desmarest as a synonym. This was apparently the first attribution of the name to Kuhl. Wagner in Schreber (1840) followed suit, and from that time onwards most writers on primates have assumed that Kuhl described a species *Ateles geoffroyi* and that this is the earliest available name for a Central American spider monkey. The Commission Secretariat holds an extensive list of publications in which this attribution is followed (e.g. Napier & Napier, 1967, p. 59; Klein, 1971; Mittermeier & Fleagle, 1976). Elliot (1912), who gave an extensive bibliographic listing of primate names, continued to refer to *Ateles geoffroyi* Kuhl, 1820. Sherborn (1926, p. 2664) also attributed the authorship to Kuhl, but spelled the species name 'geoffroy'. The name *Ateles melanochir* Desmarest, 1820 was rarely used as a valid name (e.g. Geoffroy Saint-Hilaire (1851, p. 49)) since the time of its publication and can be considered a nomen oblitum. Fischer (1829) made the name *Ateles geoffroyi* available, but has never been recognized as the author of the name.

5. The only author who seems to have checked the original source was Hill (1962, p. 463), who wrote: 'The specific name *geoffroyi* nowadays applied to this monkey should, in all probability, be replaced by *melanochir* Desmarest . . .' and went on to recount the history of (3) above. It was Hill's footnote that alerted us to the probability that all might not be well with current nomenclature.

6. Stability would be best served by formalizing the fiction that Kuhl described a species called *Ateles geoffroyi*. Kuhl's description was based on the same specimen as *A. melanochir*, so that specimen becomes the type of both names. This preserves current and long accepted nomenclature.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that the name *Ateles geoffroyi* is deemed to be available from Kuhl (1820);
- (2) to place on the Official List of Specific Names in Zoology the name *geoffroyi* Kuhl, 1820, as published in the combination '*Ateles* Geoffroy. mihi species inedita' and ruled in (1) above to be *Ateles geoffroyi*.

References

- Desmarest, A.G.** 1820. *Encyclopédie Méthodique. Zoologie. Mammalogie ou description des espèces de Mammifères*. Pt. 1. 8, 555 pp., pls. 1–112, 1–14. Paris.
- Elliot, D.G.** 1912. *A Review of the Primates*, vol. 2. 18, 382 pp.; 26, 38 pls. American Museum of Natural History, New York.
- Fischer, J.B.** 1829. *Synopsis Mammalium*. 42, 752 pp. J.G. Cotta, Stuttgart.
- Geoffroy Saint-Hilaire, É.** 1806. Mémoire sur les singes à main imparfait ou les Atèles. *Annales du Muséum National d'Histoire Naturelle*, Paris, 7: 260–273.
- Geoffroy Saint-Hilaire, É.** 1812. Tableau des Quadrumanes, ou des Animaux composant le premier Ordre de la Classe des Mammifères. *Annales du Muséum National d'Histoire Naturelle*, Paris, 19: 85–122.
- Geoffroy Saint-Hilaire, I.** 1851. *Muséum National d'Histoire Naturelle de Paris. Catalogue méthodique de la collection des oiseaux et des collections annexes*. Première partie. Mammifères. 96 pp. Gide et Baudry, Paris.
- Hill, W.C.O.** 1962. *Primates: Comparative Anatomy and Taxonomy*. 5. Cebidae, Part B. 21, 537 pp. Edinburgh University Press, Edinburgh.

- Kellogg, R. & Goldman, E.A.** 1944. Review of the spider monkeys. *Proceedings of the United States National Museum*, **96**: 1–45.
- Klein, L.L.** 1971. Observation on copulation and seasonal reproduction of two species of spider monkeys, *Ateles belzebuth* and *Ateles geoffroyi*. *Folia primatologica*, **15**: 223–248.
- Kuhl, H.** 1820. *Beiträge zur Zoologie und vergleichenden Anatomie*. 212 pp., 11 pls. Hermannschen Buchhandlung, Frankfurt.
- Mittermeier, R.A. & Fleagle, J.G.** 1976. The locomotor and postural repertoires of *Ateles geoffroyi* and *Colobus guereza*, and a reevaluation of the locomotor category semi-brachiation. *American Journal of Physical Anthropology*, **45**: 235–256.
- Napier, J.R. & Napier, P.H.** 1967. A handbook of living primates. 456 pp. Academic Press, London, New York.
- Rode, P.** 1938. Catalogue des types de mammifères du Muséum National d'Histoire Naturelle. 1 Ordre des Primates. A. Sous-ordre des simiens. *Bulletin du Muséum National d'Histoire Naturelle*, (2)**10**: 202–251.
- Sherborn, C.D.** 1926. *Index Animalium sive index nominum quae ab A.D. MDCCLVIII generibus et speciesbus animalium imposita sunt*, part 9. Pp. 2569–2880. British Museum, London.
- Wagner, J.A.** 1840. In Schreber J.C.D. von. *Die Säugthiere in Abbildungen nach der Natur mit Beschreibungen*. Supplementband 1. 14, 6, 551 pp. L.D. Weigel, Leipzig.

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Comment on the proposed conservation of usage of *Oceania* Péron & Lesueur, 1810 (Cnidaria, Hydrozoa) by the designation of *Oceania armata* Kölliker, 1853 as the type species

(Case 3304; see BZN 62: 221–225)

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The authors of this case incorrectly spelled the name of the family based on *Oceania* Péron & Lesueur throughout the text. The stem of the generic name to which the ending –IDAE must be attached is to be determined according to Article 29.3.1. For the genus *Oceania*, it is *Oceani-*, by elimination of the Latin first declension nominative ending –a. Thus, the correct family name obtained is OCEANIIDAE, and not ‘Oceanidae’ as used, even if the latter was the original spelling used by Eschscholtz (1829). I propose that the application is amplified as follows:

- (4) to place on the Official List of Family-Group Names in Zoology the name OCEANIIDAE Eschscholtz, 1829 (type genus: *Oceania* Péron & Lesueur, 1810) (a valid emendation of the incorrect original spelling OCEANIDAE);
- (5) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name OCEANIDAE Eschscholtz, 1829 (an incorrect original spelling of OCEANIIDAE).

Comment on the proposed conservation of the specific name of *Helix papillaris* Müller, 1774 (currently *Papillifera papillaris*; Mollusca, Gastropoda)

(Case 3319; see BZN 62: 130–133; 63: 46–47)

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1. I support the reasoning and the resulting proposals made by Giusti & Manganelli. They serve the stability of nomenclature as well as honour the content of the original publications of *Turbo bidens* Linnaeus, 1758 and *Helix papillaris* Müller, 1774. If the content of the original publication of the name *Turbo bidens* Linnaeus, 1758 is taken on its own merits, the conclusion that this nominal species is not the same as *Helix papillaris* Müller, 1774 is straightforward. The identification of *Turbo bidens* Linnaeus with the latter is only based on the subsequent statements by Linnaeus (1767) and Schröter (1784), which still have an effect more than 220 years later. Up to the present day both names have been treated as the valid name for the same species; a literature survey suggests that the name *papillaris* has been treated as valid more often than *bidens* in the last 50 years (list held by the Commission Secretariat). Only if the experts could agree that the name *Turbo bidens* Linnaeus, 1758 is unidentifiable and should remain so, then an application on this subject would have been unnecessary.

2. In his comments to support the acceptance of the name *Turbo bidens* Linnaeus, 1758 for the species in question, Welter-Schultes (BZN 63: 46–47) makes a number of assumptions which are either poorly supported by facts, or are purely speculative:

(a) Müller's diagnosis (in contrast to Giusti & Manganelli's initial statement) was not clear enough – Müller's description and the figures cited by him leave no doubt as to the species intended; the use of the name *papillaris* in subsequent literature is unequivocal. The purpose of Giusti & Manganelli's proposal of a neotype is not to remove doubt as to the identification of *Helix papillaris* Müller, but to fix that name to a particular strain in the species complex.

(b) Rossmässler's (1835) dictionary of Latin descriptive terms cannot be applied to the earlier text of Linnaeus, 1758 – Possibly true, but this does not support the assertion that Linnaeus, 1758 described the same species as Müller. The latter clearly described in Latin the conspicuous colour pattern which is missing in Linnaeus's diagnosis.

(c) Linnaeus may have had 'good reasons' not to mention this colour pattern – It is inconceivable that the founder of systematics of the entire Plant and Animal Kingdoms would have suppressed mentioning a conspicuous character in his diagnoses, which is alluded to by later authors in both the genus and species name of the taxon here discussed.

(d) Linnaeus may have had only dead shells at his disposal – Unproven speculation. His words: 'testa . . . pellucida' (shell transparent) is unlikely to apply to dead (and hence bleached and opaque) shells. I would speculate that a scientist of Linnaeus's experience would have refrained from basing a new species on weathered shells.

(e) Linnaeus may have had several species in the family CLAUSILIIDAE in mind, of which only one (*viz. Papillifera papillaris*) showed the aforementioned colour pattern, which was therefore not considered diagnostic for the composite nominal taxon *Turbo bidens* – It is quite possible that Linnaeus united several species under that name, but this cannot be proven. I would expect that Linnaeus would not have regarded a clausiliid with a conspicuous colour pattern as conspecific with other clausiliids which lacked this feature.

Comment on the proposed conservation of *Palamopus* E. Hitchcock, 1845 (Ichnotaxa, Reptilia?)

(Case 3348; see BZN 62: 237–239; 63: 49–50)

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1. The term 'Sauroidichnites' was coined by Edward Hitchcock in 1837 as a subdivision of the general term 'Ichnites', and immediately afterwards used as a suborder of the order 'Dipodichnites' in the class 'Ichnolithes' (Hitchcock, 1841, 1844), thus in the first place 'Sauroidichnites' must be regarded as a suprafamilial taxon. Haubold (1971, 1974) pointed out that only in 1845 did Hitchcock begin to use generic names (i.e. different from higher level terms). Indeed, Hitchcock (1848,

p. 130) stated that he had introduced the term 'Sauroidichnites' intending, by the term, merely to convey an intimation that they might prove to be reptilian. It is therefore argued that 'Sauroidichnites' (and likewise 'Ornithichnites' and 'Tetrapodichnites') was not used as a generic name in the sense of binominal nomenclature, but as a general term denoting an object class, in which case 'Sauroidichnites' is unavailable as a generic name and does not need to be suppressed.

2. However, as Hitchcock (1837) subdivided the 'Ornithichnites' into 'Pachydactyli' and 'Leptodactyli' and used 'Ornithichnites' to include several ichnospecies, it could be argued that *Sauroidichnites*, *Ornithichnites* and *Tetrapodichnites* were used as generic appellations and general terms at the same time and could be acceptable as available generic names, possibly in the sense of a 'collective group'.

3. The question of the type species can be summarized as follows: Hitchcock (1837) used *Sauroidichnites* to include five species-group names. The type ichnospecies of the ichnogenus *Sauroidichnites* Hitchcock, 1837 – if considered available – is *Sauroidichnites palmatus* (Hitchcock, 1836) by original monotypy, as the four other species names coined by Hitchcock in 1837 without description are unavailable. However, although it is the older name and an objective synonym, *Palamopus palmatus* is not the type species of *Palamopus*, as implied by Rainforth (para. 2). The type species (by monotypy) is *Palamopus anomalus* Hitchcock, 1845, as correctly stated by Hay (1902). If *Sauroidichnites* and *Ornithichnites* are considered unavailable generic names, that does not affect the availability of '*Ornithichnites*' *palmatus*, the valid specific name of the type species of *Palamopus* (Article 11.9.3.1 of the Code). Should the name *palmatus* prove to be nomenclaturally unavailable, *P. anomalus* may be reinstated as the valid name of the type species.

4. Rainforth stated that *Palamopus* has been used as the name for an ichnotaxon in four published works (Kuhn, 1963; Haubold, 1971, 1984; Olsen & Radian, 1986). Kuhn (1963) accepted only *Palamopus* Hitchcock, 1845 with *P. palmatus* (Hitchcock, 1841, note date, with *Sauroidichnites palmatus* in synonymy) as the valid name of the type species ('Genotypus'), thus apparently ignoring the older references. However, Kuhn (1963) cited the works of Hitchcock older than 1841, and there is no doubt that Kuhn had actually seen them, as the first series of volumes of the *American Journal of Science and Arts* is available, with early 19th century possession stamps, in the Bayerische Staatsbibliothek in Munich, which was Kuhn's main literature source (Kuhn, 1963, p. 3). It is therefore concluded that Kuhn, possibly following Hay (1902) and others, consistently did not accept species names in these older works as available, and generic names only beginning with Hitchcock, 1845. Haubold (1971 and follow-up publications of 1974 and 1984 in the second, enlarged edition) explicitly considered *Sauroidichnites* as not available as a generic name, following Kuhn (1963, and the references cited therein); hence, he used *Palamopus* (Haubold, 1971), with *Sauroidichnites* in synonymy. Finally, Olsen & Padian (1986, p. 261) listed *Palamopus* only in the synonymy of *Batrachopus*, and more specifically three species of *Palamopus*, including '*P. palmatus* Hitchcock, 1841', in tentative subjective synonymy with *Batrachopus deweyi* (Hitchcock, 1843) (Olsen & Padian, 1986, p. 262), so this reference cannot be counted as usage of *Palamopus* as the valid name of a taxon.

5. To summarize: Of the limited record of only four works cited by Rainforth to support a universal usage of the younger name *Palamopus*, instead of the older

Sauroidichnites during the past 50 years, one work did not use *Palamopus* as a valid name, two used *Palamopus* with *Sauroidichnites* in explicit synonymy, and three did not consider *Sauroidichnites* an available generic name in zoological nomenclature. An accurate record by Lockley & Meyer (2004, p. 174) for *Palamopus* as a (presumably) valid taxon name was published probably too late to be employed by Rainforth. However, four references, at the most, cannot be considered as establishing prevailing usage. The nomenclature would hardly be upset, if the older name *Sauroidichnites* was to be used and strict priority would be reinstated. It is my contention, therefore, that the proposed suppression of *Sauroidichnites* is not supported by the reasoning of Rainforth. However, I strongly recommend following previous authors in considering *Sauroidichnites* Hitchcock, 1837 as not available as a generic name for reasons stated in para. 1 above.

6. Therefore, amending the application by Rainforth, the International Commission on Zoological Nomenclature is accordingly asked:

- (1) to place on the Official List of Generic Names in Zoology the name *Palamopus* E. Hitchcock, 1845 (gender: masculine), type species by monotypy *Palamopus anomalus* E. Hitchcock, 1845;
- (2) to place on the Official List of Specific Names in Zoology the name *palmatus* E. Hitchcock, 1836, as published in the binomen *Ornithichnites palmatus* (senior objective synonym of the type ichnospecies of *Palamopus* E. Hitchcock, 1845);
- (3) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Palamopus* E. Hitchcock, 1848 (a junior synonym of *Palamopus* E. Hitchcock, 1845);
- (4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *anomalus* E. Hitchcock, 1845, as published in the binomen *Palamopus anomalus* (junior objective synonym of *Ornithichnites palmatus* E. Hitchcock, 1836).

Additional references

- Haubold, H.** 1974. *Die fossilen Saurierfährten*. 168 pp. Ziemsen Verlag, Wittenberg Lutherstadt.
- Lockley, M.C. & Meyer, C.** 2004. Crocodylomorph trackways from the Jurassic to Early Cretaceous of North America and Europe: implications for ichnotaxonomy. *Ichnos*, **11**(1–2): 167–178.

OPINION 2147 (Case 3263)***Octopus hummelincki* Adam, 1936 (Mollusca, Cephalopoda): specific name conserved**

Abstract. The Commission has ruled that the specific name *Octopus hummelincki* Adam, 1936 is conserved for a common small ocellate octopus from the Caribbean and western Atlantic. The older name *O. filusus* Howell, 1868 was long regarded as a synonym of *O. vulgaris* Cuvier, 1797, but more recently has been synonymized with *O. hummelincki* (rather than *O. vulgaris*). The name *O. filusus* has had very little usage and its name has been suppressed.

Keywords. Nomenclature; taxonomy; Cephalopoda; OCTOPODIDAE; *Octopus hummelincki*; *Octopus filusus*.

Ruling

- (1) Under the plenary power it is hereby ruled that the name *filusus* Howell, 1868, as published in the binomen *Octopus filusus*, is suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) The name *hummelincki* Adam, 1936, as published in the binomen *Octopus hummelincki*, is hereby placed on the Official List of Specific Names in Zoology.
- (3) The name *filusus* Howell, 1868, as published in the binomen *Octopus filusus* and suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3263

An application to conserve the specific name *Octopus hummelincki* Adam, 1936 for a common small ocellate octopus from the Caribbean and western Atlantic was received from Ian G. Gleadall (*Tohoku Bunka Gakuen University, Sendai, Japan*) on 6 January 2003. After correspondence the case was published in **BZN 61**: 19–22 (March 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in **BZN 61**: 21. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 16: Alonso-Zarazaga, Bock, Brothers, Calder, Fortey, Halliday, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Rosenberg, Štys and van Tol.

Negative vote: – 1: Patterson.

No votes were received from Bouchet, Kerzhner, Ng and Song.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

filosus, *Octopus*, Howell, 1868, *American Journal of Conchology*, **3**: 240.

hummelincki, *Octopus*, Adam, 1936, *Bulletin du Musée Royal d'Histoire Naturelle de Belgique*, **12**(40): 2.

OPINION 2148 (Case 3294)***Gynacantha* Rambur, 1842 and *Triacanthagyna* Selys, 1883 (Insecta, Odonata): usage conserved by the designation of *Gynacantha nervosa* Rambur, 1842 as the type species of *Gynacantha***

Abstract. The Commission has ruled that the usage of the names *Gynacantha* Rambur, 1842 and *Triacanthagyna* Selys, 1883 for two genera of aeshnid dragonflies is conserved by the designation of *Gynacantha nervosa* Rambur, 1842 as the type species of *Gynacantha*.

Keywords. Nomenclature; taxonomy; Odonata; AESHNIDAE; *Gynacantha*; *Triacanthagyna*; *Gynacantha nervosa*; *Triacanthagyna trifida*; dragonflies; Neotropical region; tropics.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Gynacantha* Rambur, 1842 before the designation by Calvert (1905) of *Gynacantha nervosa* Rambur, 1842 are set aside.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Gynacantha* Rambur, 1842 (gender: feminine), type species by subsequent designation by Calvert (1905) *Gynacantha nervosa* Rambur, 1842, as ruled in (1) above;
 - (b) *Triacanthagyna* Selys, 1883 (gender: feminine), type species by monotypy *Gynacantha trifida* Rambur, 1842.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *nervosa* Rambur, 1842, as published in the binomen *Gynacantha nervosa* (specific name of the type species of *Gynacantha* Rambur, 1842, as ruled in (1) above);
 - (b) *trifida* Rambur, 1842, as published in the binomen *Gynacantha trifida* (specific name of the type species of *Triacanthagyna* Selys, 1883).

History of Case 3294

An application to conserve the usage of the names *Gynacantha* Rambur, 1842 and *Triacanthagyna* Selys, 1883 was received from Natalia von Ellenrieder and Rosser W. Garrison (*California Department of Food and Agriculture, Sacramento, California, U.S.A.*) on 8 July 2003. After correspondence the case was published in **BZN 62**: 14–17 (March 2005). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this application.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in **BZN 62**: 15–16. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 19: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes: – none.

No votes were received from Ng and Song.

Original references

The following are the original references to the names placed on Official Lists:

Gynacantha Rambur, 1842, *Histoire naturelle des insectes. Névroptères*, p. 209.

nervosa, *Gynacantha*, Rambur, 1842, *Histoire naturelle des insectes. Névroptères*, p. 213.

Triacanthagyna Selys, 1883, *Bulletin de l'Académie Royal de Belgique*, (3)5: 745.

trifida, *Gynacantha*, Rambur, 1842, *Histoire naturelle des insectes. Névroptères*, p. 210.

The following is the reference for the designation of *Gynacantha nervosa* Rambur, 1842 as the type species of *Gynacantha* Rambur, 1842:

Calvert, P.P. 1905. *Biologia centrali-americana: Insecta, Neuroptera*, p. 189.

OPINION 2149 (Case 3291)**DROMIIDAE Bonelli, 1810 (Insecta, Coleoptera, Caraboidea): emended to DROMIUSIDAE to remove homonymy with DROMIIDAE De Haan, 1833 (Crustacea, Decapoda, Brachyura, Dromioidea)**

Abstract. The Commission has ruled that homonymy between the beetle family name DROMIIDAE Bonelli, 1810 (type genus *Dromius* Bonelli, 1810) and the decapod family name DROMIIDAE De Haan, 1833 (type genus *Dromia* Weber, 1795) is removed by changing the spelling of the senior homonym, and that the entire generic name of *Dromius* is used to form the name DROMIUSIDAE Bonelli, 1810.

Keywords. Nomenclature; taxonomy; Insecta; Coleoptera; Crustacea; Brachyura; Caraboidea; DROMIIDAE; DROMIUSIDAE; *Dromius*; *Dromia*; *Dromius quadrimaculatus*.

Ruling

- (1) Under the plenary power it is hereby ruled that for the purposes of Article 29 of the Code the stem of the generic name *Dromius* Bonelli, 1810 is DROMIUS-.
- (2) The name *Dromius* Bonelli, 1810 (gender: masculine), type species by subsequent designation by Hope (1838) *Carabus quadrimaculatus* Linnaeus, 1758, is hereby placed on the Official List of Generic Names in Zoology (Coleoptera).
- (3) The name *quadrimaculatus* Linnaeus, 1758, as published in the binomen *Carabus quadrimaculatus*, the specific name of the type species of *Dromius* Bonelli, 1810, is hereby placed on the Official List of Specific Names in Zoology (Coleoptera).
- (4) The name DROMIUSIDAE Bonelli, 1810, type genus *Dromius* Bonelli, 1810, (spelling emended by the ruling in (1) above) is hereby placed on the Official List of Family-Group Names in Zoology (Coleoptera).
- (5) The name DROMIIDAE Bonelli, 1810 (an incorrect original spelling of DROMIUSIDAE, as ruled in (1) above) is hereby placed on the Official Index of Rejected and Invalid Family-Group Names in Zoology (Coleoptera).

History of Case 3291

An application to remove homonymy between the beetle family name DROMIIDAE Bonelli, 1810 (type genus *Dromius* Bonelli, 1810) and the decapod family name DROMIIDAE De Haan, 1833 (type genus *Dromia* Weber, 1795) by changing the spelling of the senior homonym was received from Thierry Deuve and Danièle Guinot (*Muséum national d'Histoire naturelle, 75005 Paris, France*) and Jean-Marie Bouchard (*11 rue Caulaincourt, 75018 Paris, France*) on 1 July 2003. After correspondence the case was published in BZN 61: 225–231 (December 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in BZN 61: 228–229. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 17: Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes: – 2: Alonso-Zarazaga and Minelli.

No votes were received from Ng and Song.

Voting against, Alonso-Zarazaga commented: 'I consider that the reasons given by the authors of the application to amend the oldest name are weak and the implication of including the name HOMOLODROMIIDAE in the problem is just a subterfuge. Consequently, I vote against. Changing the oldest name (which has precedence) is more destabilising than changing the single junior Crustacean family name (the other cited names must not be modified). I propose instead that the junior Crustacean family name is spelled DROMIAIDAE, making the stem of the type genus DROMIA-'.
'

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

DROMIIDAE Bonelli, 1810, *Observations entomologiques*. Première Partie, *tabula synoptica*, unnumbered page.

Dromius Bonelli, 1810, *Observations entomologiques*. Première Partie, *tabula synoptica*, unnumbered page.

DROMIUSIDAE Bonelli, 1810, *Observations entomologiques*. Première Partie, *tabula synoptica*, unnumbered page.

quadrinaculatus, *Carabus*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 416.

The following is the reference for the designation of *quadrinaculatus*, *Carabus*, Linnaeus, 1758 as the type species of *Dromius* Bonelli, 1810:

Hope, F.W. 1838. *The Coleopterist's Manual*, part 2, p. 63.

OPINION 2150 (Case 3317)***Scarabaeus arenarius* Olivier, 1789 (currently *Aphodius arenarius*) and *Scarabaeus fasciatus* Olivier, 1789 (currently *Aphodius fasciatus*) (Insecta, Coleoptera): specific names conserved**

Abstract. The Commission has ruled that the specific names of the scarab beetles *Aphodius fasciatus* (Olivier, 1789) and *A. arenarius* (Olivier, 1789) are conserved by a ruling that these names are not invalid by reason of being junior primary homonyms of *Trichius fasciatus* (Linnaeus, 1758) and *Aegialia arenarius* (Fabricius, 1787) respectively. The Commission has also suppressed the name *Scarabaeus putridus* Geoffroy in Fourcroy, 1785.

Keywords. Nomenclature; taxonomy; Coleoptera; SCARABAEIDAE; APHODIINAE; AEGIALIINAE; TRICHIINAE; *Aphodius arenarius*; *Aphodius fasciatus*; dung beetles.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) the specific name *putridus* Geoffroy in Fourcroy, 1785, as published in the binomen *Scarabaeus putridus*, is suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
 - (b) the following specific names are not invalid:
 - (i) *fasciatus* Olivier, 1789, as published in the binomen *Scarabaeus fasciatus*, by reason of being a junior primary homonym of *Scarabaeus fasciatus* Linnaeus, 1758;
 - (ii) *arenarius* Olivier, 1789, as published in the binomen *Scarabaeus arenarius*, by reason of being a junior primary homonym of *Scarabaeus arenarius* Fabricius, 1787.
- (2) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *fasciatus* Olivier, 1789, as published in the binomen *Scarabaeus fasciatus* (not invalid by reason of being a junior primary homonym of *Scarabaeus fasciatus* Linnaeus, 1758 as ruled in (1)(b)(i) above);
 - (b) *arenarius* Fabricius, 1787, as published in the binomen *Scarabaeus arenarius*;
 - (c) *arenarius* Olivier, 1789, as published in the binomen *Scarabaeus arenarius* (not invalid by reason of being a junior primary homonym of *Scarabaeus arenarius* Fabricius, 1787 as ruled in (1)(b)(ii) above);
- (3) The following names are hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology:
 - (a) *putridus* Geoffroy in Fourcroy, 1785, as published in the binomen *Scarabaeus putridus* and as suppressed in (1)(a) above;
 - (b) *putridus* Herbst, 1789, as published in the binomen *Scarabaeus putridus* (a junior primary homonym of *Scarabaeus putridus* Geoffroy in Fourcroy, 1785);

- (c) *putridus* Sturm, 1805, as published in the binomen *Aphodius putridus* (a junior homonym of *Scarabaeus putridus* Geoffroy in Fourcroy, 1785);
- (d) *fasciatus* Fabricius, 1801, as published in the binomen *Aphodius fasciatus* (a junior homonym of *Scarabaeus fasciatus* Olivier, 1789).

History of Case 3295

An application to conserve the specific names of *Scarabaeus arenarius* Olivier, 1789 and *Scarabaeus fasciatus* Olivier, 1789 was received from Frank-Thorsten Krell (*Natural History Museum, Cromwell Road, London, SW7 5BD, U.K.*) on 13 January 2004. After correspondence the case was published in *BZN* **61**: 232–240 (December 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in *BZN* **61**: 235–236. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 18: Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative vote: – 1: Alonso-Zarazaga.

No votes were received from Ng and Song.

Voting against, Alonso-Zarazaga commented that he regarded the application as premature, and that more information on the identity of type specimens was needed.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

- arenarius*, *Scarabaeus*, Fabricius, 1787, *Mantissa insectorum sistens eorum species nuper detectas adiectis characteribus genericis, differentialis specificis, emendationibus, observationibus*, p. 11.
- arenarius*, *Scarabaeus*, Olivier, 1789, *Entomologie, ou Histoire Naturelle des Insectes, avec leurs caractères généraux et spécifiques, leur description, leur synonymie, et leur figure enluminée. Coléoptères. 1, Scarabé*, p. 96.
- fasciatus*, *Aphodius*, Fabricius, 1801, *Systema Eleutheratorum secundum Ordines, Genera, Species adiectis Synonymis, Locis, Observationibus, Descriptionibus*, part 1, p. 68.
- fasciatus*, *Scarabaeus*, Olivier, 1789, *Entomologie, ou Histoire Naturelle des Insectes, avec leurs caractères généraux et spécifiques, leur description, leur synonymie, et leur figure enluminée. Coléoptères. 1, Scarabé*, p. 90.
- putridus*, *Aphodius*, Sturm, 1805, *Deutschlands Fauna in Abbildungen nach der Natur mit Beschreibungen. V. Abtheilung. Die Insecten. Erstes Bändchen. Käfer*, p. 125.
- putridus*, *Scarabaeus*, Geoffroy in Fourcroy, 1785, *Entomologia Parisiensis; sive Catalogus Insectorum quae in Agro Parisiensi reperiuntur; Secundum methodum Geoffraeanam in sectiones, genera & species distributus: Cuius addita sunt nomina trivialia & fere trecentae novae Species. Pars Prima*, p. 12.
- putridus*, *Scarabaeus*, Herbst, 1789, *Natursystem aller bekannten in- und ausländischen Insekten, als eine Fortsetzung der von Buffonschen Naturgeschichte. Nach dem System des Ritters von Linné und Fabricius zu bearbeiten angefangen von Carl Gustav Jablonsky. Der Käfer zweyter Theil*, p. 160f.

OPINION 2151 (Case 3295)***Eterusia cingala* Moore, 1877 (Insecta, Lepidoptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Eterusia cingala* Moore, 1877 is conserved for a common zygaenid moth pest of tea in Asia, the larvae of which are known as 'tea slugs'. The older name *Eterusia aedea septentrionicola* Felder & Felder, 1862 is a senior subjective synonym of *E. cingala*, but has not been catalogued or used since 1862. The name *E. cingala* is conserved by the suppression of *E. septentrionicola*.

Keywords. Nomenclature; taxonomy; *Eterusia*; *Eterusia cingala*; tea slug; Asia.

Ruling

- (1) Under the plenary power it is hereby ruled that the name *septentrionicola* Felder & Felder, 1862, as published in the trinomen *Eterusia aedea septentrionicola*, is suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) The name *cingala* Moore, 1877, as published in the binomen *Eterusia cingala*, is hereby placed on the Official List of Specific Names in Zoology.
- (3) The name *septentrionicola* Felder & Felder, 1862, as published in the trinomen *Eterusia aedea septentrionicola* and as suppressed in (1) above, is hereby placed on the Official Index of Specific Names in Zoology.

History of Case 3295

An application to conserve the specific name of *Eterusia cingala* Moore, 1877, threatened by the senior subjective synonym *Eterusia aedea septentrionicola* Felder & Felder, 1862, was received from Shen-Horn Yen (*National Sun Yat-Sen University, Kaohsiung 804, Taiwan*) on 17 July 2003. After correspondence the case was published in BZN 62: 18–20 (March 2005). The title, abstract and keywords of the case were published on the Commission's website. One comment supporting the application was published in BZN 62: 153.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in BZN 62: 19. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 17: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahner, Mawatari, Minelli, Nielsen, Papp, Patterson and Štys.

Negative votes: – 2: Rosenberg and van Tol.

No votes were received from Ng and Song.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

cingala, *Eterusia*, Moore, 1877, *Annals & Magazine of Natural History*, (4)**20**: 343.

septentrionicola, *Eterusia aedea*, Felder & Felder, 1862, *Wiener Entomologische Monatschrift*,
6: 32.

OPINION 2152 (Case 3320)***Papilio sapho* Drury, 1782 (Insecta, Lepidoptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Papilio sapho* Drury, 1782 (currently *Heliconius sapho*) (NYMPHALIDAE) is conserved for a species of brush-footed butterflies inhabiting the Neotropics. The name has been in use for more than 220 years, but is a junior primary homonym of *Papilio sappho* Pallas, 1771 (currently *Neptis sappho*) which belongs to a different subfamily inhabiting the Palaearctic. Both names are in common and widespread use, and the Commission has ruled that *P. sapho* Drury is not invalid by reason of being a junior primary homonym of *P. sappho* Pallas.

Keywords. Nomenclature; taxonomy; Lepidoptera; NYMPHALIDAE; *Heliconius*; *Heliconius sapho*; *Neptis sappho*; Neotropics; Palaearctic; brush-footed butterflies.

Ruling

- (1) Under the plenary power it is hereby ruled that the specific name *sapho* Drury, 1782, as published in the binomen *Papilio sapho*, is not invalid by reason of being a junior primary homonym of *Papilio sappho* Pallas, 1771.
- (2) The entry on the Official List of Generic Names in Zoology for *Heliconius* Kluk is hereby emended to record that the date of publication was 1780 and not 1802.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *sappho* Pallas, 1771, as published in the binomen *Papilio sappho*;
 - (b) *sapho* Drury, 1782, as published in the binomen *Papilio sapho* (ruled in (1) above to be not invalid by reason of being a junior primary homonym of *Papilio sappho* Pallas, 1771).
- (4) The entry on the Official List of Specific Names in Zoology for *charithonia* Linnaeus, 1767, as published in the binomen *Papilio charithonia*, is hereby emended to record that it is the type species of *Heliconius* Kluk, 1780 and not 1802.
- (5) The entries for the following names on the Official Index of Rejected and Invalid Generic Names in Zoology are hereby emended to record that the date of publication of *Heliconius* Kluk was 1780 and not 1802:
 - (a) *Heliconius* Latreille, 1804;
 - (b) *Heliconia* Godart, 1819;
 - (c) *Apostraphia* Hübner, 1816.

History of Case 3295

An application to conserve the specific name of *Papilio sapho* Drury, 1782 was received from Gerardo Lamas (*Museo de Historia Natural, Universidad Nacional Mayor de San Marcos, Lima-14, Peru*) and James L.B. Mallet (*Department of*

Biology, University College London, London NW1 2HE, U.K.) on 1 June 2004. After correspondence the case was published in BZN 62: 21–24 (March 2005). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in BZN 62: 22. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 18: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes: – none.

Lamas abstained as an author of the Application.

No votes were received from Ng and Song.

Original references

The following are the original references to the names placed on, and emendments made to, Official Lists and an Official Index by the ruling given in the present Opinion:

Apostraphia Hübner, 1816, *Verzeichniss bekannter Schmettlinge*, 1: 13.

charithonia, *Papilio*, Linnaeus, 1767, *Systema Naturae*, Ed. 12, vol. 1, p. 757.

Heliconia Godart, 1819, *Encyclopédie Méthodique*, vol. 9, p. 203.

Heliconius Kluk, 1780, *Zwierzat domowych i dzikich, osobliwie kraiowych, historyi naturalney poczatki i gospodarstwo*, vol. 4, p. 82.

Heliconius Latreille, 1804, *Nouveau Dictionnaire d'Histoire Naturelle*, vol. 24, pp. 185, 199.

sapho, *Papilio*, Drury, 1782, *Illustrations of Natural History. Wherein are exhibited upwards of two hundred figures of exotic insects*, vol. 3, p. 54.

sappho, *Papilio*, Pallas, 1771, *Reise durch verschiedene Provinzen des russischen Reichs. Erster Theil*, p. 471.

OPINION 2153 (Case 3259)

***Eristalis* Latreille, 1804 (Insecta, Diptera): confirmation that the gender is feminine; *Musca nemorum* Linnaeus, 1758, *M. arbustorum* Linnaeus, 1758 and *M. horticola* De Geer, 1776 (currently *Eristalis nemorum*, *E. arbustorum* and *E. horticola*): usage of the specific names conserved by the designation of neotypes**

Abstract. The Commission has ruled that the gender of the generic name *Eristalis* Latreille, 1804 is feminine, and that the long established usage of the specific names *Eristalis nemorum* (Linnaeus, 1758), *E. arbustorum* (Linnaeus, 1758) and *E. horticola* (De Geer, 1776) is conserved by the designation of neotypes.

Keywords. Nomenclature; taxonomy; Diptera; SYRPHIDAE; *Eristalis*; *Eristalis arbustorum*; *Eristalis nemorum*; *Eristalis horticola*; bee-mimic hoverflies.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) the gender of the nominal genus *Eristalis* is feminine;
 - (b) all previous type fixations for the following nominal species are set aside and neotypes designated as stated:
 - (i) *Musca arbustorum* Linnaeus, 1758, the male specimen labelled Lpm, Sorsele, 10/8/58, leg. S. Gaunitz, R. Dahl Coll., BM 1997-740 designated as the neotype;
 - (ii) *Musca nemorum* Linnaeus, 1758, the male specimen labelled Sweden, Vstm, Nora district, Klacka Lerberg, 22.vi.1986, in horse paddock, leg. A.C. Pont, 'Er. interrupta (Poda) T.R. Nielsen det.' designated as the neotype;
 - (iii) *Musca horticola* De Geer, 1776, the male specimen labelled Sweden, Sk, Höör Lillöbukten, 2.viii.1980, leg. A.C. Pont, 'Eristalis horticola Deg. det. Tore Nielsen' designated as the neotype.
- (2) The entry on the Official List of Generic Names in Zoology for the name *Eristalis* Latreille, 1804 is hereby amended to indicate that its gender is feminine.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *arbustorum* Linnaeus, 1758, as published in the binomen *Musca arbustorum* and as defined by the neotype designated in (1)(b)(i) above;
 - (b) *nemorum* Linnaeus, 1758, as published in the binomen *Musca nemorum* and as defined by the neotype designated in (1)(b)(ii) above;
 - (c) *horticola* De Geer, 1776, as published in the binomen *Musca horticola* and as defined by the neotype designated in (1)(b)(iii) above.

History of Case 3294

An application to confirm that the gender of the generic name *Eristalis* Latreille, 1804 is feminine and to maintain long-established usage of the specific names *Musca*

nemorum Linnaeus, 1758, *M. arbustorum* Linnaeus, 1758 and *M. horticola* De Geer, 1776 by designating neotypes was received from Peter J. Chandler (*Berryfield Lane, Melksham, Wiltshire, U.K.*), Andrew Wakeham-Dawson (*Mill Laine Farm, Offham, East Sussex, U.K.*) and Angus McCullough (*108 Addison Gardens, London, U.K.*) on 8 December 2002. After correspondence the case was published in *BZN* **61**: 241–245 (December 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this application.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in *BZN* **61**: 244. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 18: Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes – 1: Alonso-Zarazaga.

No votes were received from Ng and Song.

Voting against, Alonso-Zarazaga explained that he did not accept the evidence that the name of the nominal genus *Eristalis* Latreille, 1804 was feminine.

Original references

The following are the original references to the names placed on Official Lists by the ruling in the present Opinion:

arbustorum, *Musca*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 591.

Eristalis Latreille, 1804, *Nouveau dictionnaire d'histoire naturelle*, 24 (sect. 3), p. 194.

horticola, *Musca*, De Geer, 1776, *Mémoires pour servir à l'histoire des Insectes*, vol. 6, p. 140.

nemorum, *Musca*, Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, p. 591.

OPINION 2154 (Case 3290)***Platystrophia* King, 1850 (Brachiopoda, Orthida): usage conserved by designation of *Porambonites costata* Pander, 1830 as the type species**

Abstract. The Commission has ruled that the usage of the name *Platystrophia* King, 1850 for a genus of fossil brachiopods of Ordovician – Silurian age is conserved by the designation of *Platystrophia costata* Pander, 1830 as the type species.

Keywords. Nomenclature; taxonomy; Brachiopoda; Orthida; *Platystrophia*; *Platystrophia costata*; fossil brachiopods; Ordovician; Silurian.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Platystrophia* King, 1850 are set aside and *Porambonites costata* Pander, 1830 is designated as the type species.
- (2) The name *Platystrophia* King, 1850 (gender: feminine), type species by designation in (1) above *Porambonites costata* Pander, 1830, is hereby placed on the Official Lists of Generic Names in Zoology.
- (3) The name *costata* Pander, 1830, as published in the binomen *Porambonites costata* (specific name of the type species of *Platystrophia* King, 1850) and as defined by the neotype designated by Zuykov, 1999, is hereby placed on the Official List of Specific Names in Zoology

History of Case 3290

An application to conserve the usage of the name *Platystrophia* King, 1850 for a genus of fossil brachiopods of Ordovician – Silurian age was received from M.A. Zuykov (*Department of Palaeontology, St. Petersburg State University, St. Petersburg, Russia*) and D.A.T. Harper (*Geological Museum, Copenhagen, Denmark*) on 3 June 2003. After correspondence the case was published in **BZN 61**: 246–250 (December 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments were received on this application.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in **BZN 61**: 249. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 18: Alonso-Zarazaga, Bock, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes: – none.

Bouchet abstained.

No votes were received from Ng and Song.

Abstaining, Bouchet commented that he would have liked 'prevailing usage' to have been better documented.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

costata, *Porambonites*, Pander, 1830, *Beiträge zur Geognosie des russischen Reiches*, p. 96.
Platystrophia King, 1850, *A monograph of the Permian Fossils of England*, p. 106.

The following is the reference for the designation of one of the specimens from Pander's 1845 collection from the Pulkova River, probably from the Kunda Stage, Obukhovo Formation, as the neotype of *Porambonites costata* Pander, 1830:

Zuykov, M.A. 1999. *Proceedings of the Estonian Academy of Sciences*, **48**(4): 200.

OPINION 2155 (Case 3235)***Sclerocrinus* Jaekel, 1891 (Crinoidea, Cyrtocrinida): not conserved; priority maintained for *Gammarocrinites* Quenstedt, 1857**

Abstract. The Commission has ruled that priority should be maintained for the generic name *Gammarocrinites* Quenstedt, 1857 for a group of fossil (Upper Jurassic (Oxfordian)-Lower Cretaceous (Valanginian)) crinoids. The name *Sclerocrinus* Jaekel, 1891 is not given precedence over the senior name whenever the two are considered to be synonyms. The two names have been used indiscriminately for the same taxon.

Keywords. Nomenclature; taxonomy; SCLEROCRINIDAE; *Gammarocrinites*; *Sclerocrinus*; *Gammarocrinites compressus*; *Sclerocrinus strambergensis*; fossil crinoids; Upper Jurassic-Lower Cretaceous; Europe.

Ruling

- (1) It is hereby ruled that the name *Gammarocrinites* Quenstedt, 1857 retains priority over the name *Sclerocrinus* Jaekel, 1891 whenever the two are considered to be synonyms.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Gammarocrinites* Quenstedt, 1857 (gender: masculine), type species by subsequent designation by Rasmussen (1978) *Eugeniocrinites compressus* Goldfuss, 1829;
 - (b) *Sclerocrinus* Jaekel, 1891 (gender: masculine), type species by subsequent designation by Rasmussen (1961) *S. strambergensis*, Jaekel, 1891.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *compressus* Goldfuss, 1829, as published in the binomen *Eugeniocrinites compressus* (specific name of the type species of *Gammarocrinites* Quenstedt, 1857);
 - (b) *strambergensis* Jaekel, 1891, as published in the binomen *Sclerocrinus strambergensis* (specific name of the type species of *Sclerocrinus* Jaekel, 1891).

History of Case 3291

An application to conserve the generic name *Sclerocrinus* Jaekel, 1891 for a group of fossil (Upper Jurassic (Oxfordian)-Lower Cretaceous (Valanginian)) crinoids by giving it precedence over the name *Gammarocrinites* Quenstedt, 1857 whenever the two are considered to be synonyms was received from H. Hess (*Naturhistorisches Museum Basel, Basel, Switzerland*) on 28 February 2002. After correspondence the case was published in BZN 61: 251–253 (December 2004). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 December 2005 the members of the Commission were invited to vote on the proposals published in BZN 61: 252. At the close of the voting period on 1 March 2006 the votes were as follows:

Affirmative votes: – 9: Bock, Fortey, Halliday, Lamas, Macpherson, Mahner, Mawatari, Nielsen and Papp.

Negative votes: – 10: Alonso-Zarazaga, Bouchet, Brothers, Calder, Kerzhner, Minelli, Patterson, Rosenberg, Štys and van Tol.

No votes were received from Ng and Song.

Voting against, Alonso-Zarazaga, Bouchet, Brothers and Štys said that they did not consider that the case for reversed precedence had been made.

Original references

The following are the original references to the names placed on Official Lists by the ruling given in the present Opinion:

compressus, *Eugeniocrinites*, Goldfuss, 1829, *Petrefacta Germaniae*, Bd. 1, Lief. 2, p. 164.

Gammarocrinites Quenstedt, 1857, *Der Jura*, Lief. 4, p. 654.

Sclerocrinus Jaekel, 1891, *Zeitschrift der Deutschen geologischen Gesellschaft*, 43: 621.

strambergensis, *Sclerocrinus*, Jaekel, 1891, *Zeitschrift der Deutschen geologischen Gesellschaft*, 43: 623.

The following is the reference for the designation of *Eugeniocrinites compressus* Goldfuss, 1829 as the type species of *Gammarocrinites* Quenstedt, 1857:

Rasmussen, H.W. 1978. *Treatise on Invertebrate Paleontology*, Part T, Echinodermata 2, vol. 3, p. T831.

The following is the reference for the designation of *Sclerocrinus strambergensis* Jaekel, 1891 as the type species of *Sclerocrinus* Jaekel, 1891:

Rasmussen, H.W. 1961. *Biologiske Skrifter udgivet af Det Kongelige Danske Videnskabernes Selskab*, 12: 217.

INFORMATION AND INSTRUCTIONS FOR AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Applications should be prepared in the format of recent parts of the Bulletin; manuscripts not prepared in accordance with these guidelines may be returned.

General. Applications are requests to the Commission to set aside or modify the Code's provisions as they relate to a particular name or group of names when this appears to be in the interest of stability of nomenclature. Authors submitting cases should regard themselves as acting on behalf of the zoological community and the Commission will treat all applications on this basis. Applicants should discuss their cases with other workers in the same field before submitting applications, so that they are aware of any wider implications and the likely reactions of other zoologists.

Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals to the Commission. Text references should give dates and pages in parentheses, e.g. 'Daudin (1800, p. 49) described . . .'. The Abstract will be prepared by the Commission's Secretariat.

References. These should be given for all authors cited. Where possible, ten or more reasonably recent references should be given illustrating the usage of names which are to be conserved or given precedence over older names. The title of periodicals should be in full and in italics; numbers of volumes, parts, etc. should be in arabic figures, separated by a colon from page numbers. Book titles should be in italics and followed by the number of pages and plates, the publisher and place of publication. More detailed instructions on the preparation of references are given in BZN 59: 159–160.

Submission of Application. One copy should be sent to: Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in IBM PC compatible format, or the script sent via e-mail to 'iczn@nhm.ac.uk' within the message or as an attachment (disks and attachments to be in Word, rtf or ASCII text). It would also be helpful if applications were accompanied by photocopies of relevant pages of the main references where this is possible.

The Commission's Secretariat is very willing to advise on all aspects of the formulation of an application.

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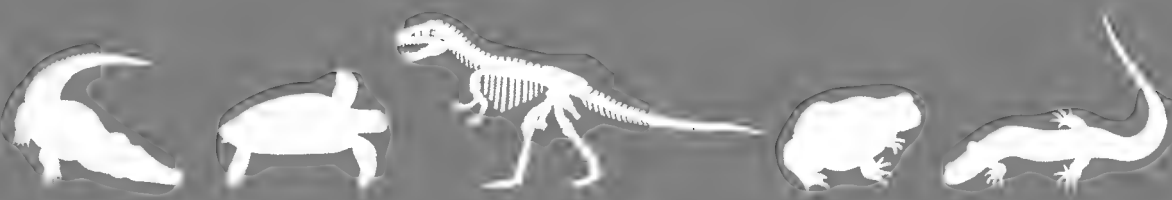
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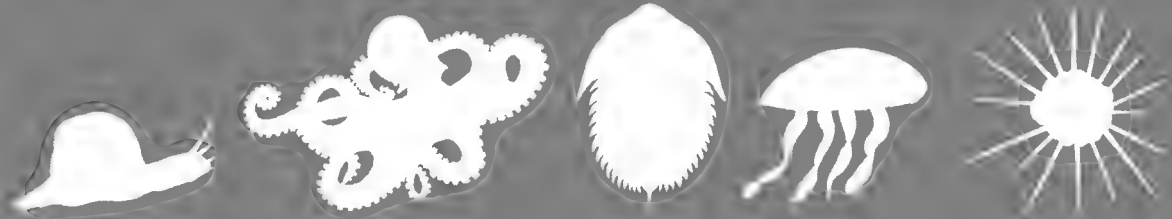
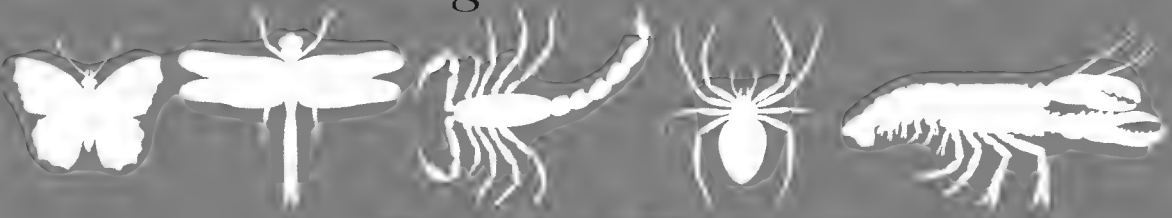
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OCT 26 2006³⁰ September 2006**Notices**

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications. As far as it can, the Secretariat will check the main nomenclatural references in applications. Correspondence should be by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited.

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 63, part 2, 30 June 2006) went to press. Under Article 82 of the Code, existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3382: *Mystus Scopoli, 1777* (Osteichthyes, Siluriformes): proposed conservation of usage by designation of *Bagrus halepensis Valenciennes* in Cuvier & Valenciennes, 1840 as the type species. M. Kottelat & H.H. Ng.

CASE 3383: *Gobius lagocephalus Pallas, 1770* (currently *Sicyopterus lagocephalus*; Teleostei, GOBIIDAE): proposed suppression of the specific name. W.L. Smith & J.S. Sparks.

CASE 3384: *Paleoparadoxia tabatai Tokunaga, 1939* (Mammalia, Desmostylia): proposed conservation by fixation of a neotype. Y. Hasegawa & N. Kohno.

CASE 3385: *Termes serratus* Froggatt, 1898 (currently *Microcerotermes serratus*) and *Termes serrula* Desneux, 1904 (currently *Microcerotermes serrula*) (Insecta, Isoptera, TERMITINAE): proposed conservation of the specific names. D.T. Jones.

CASE 3386: *Pseudocoenia* d'Orbigny, 1850 and *Pseudocoënia bernardina* d'Orbigny, 1850 (Coelenterata, Scleractinia): proposed conservation by designation of a lectotype of the type species. H. Löser.

CASE 3387: *Cancer setosus* Fabricius, 1798 (currently *Pseudograpsus setosus*; Crustacea, Decapoda): proposed replacement of the syntype by a neotype. N.K. Ng & P.K.L. Ng.

CASE 3388: *Buprestis angustula* Illiger, 1803 (Insecta, Coleoptera): proposed precedence of the specific name over that of *Buprestis pavidula* Fabricius, 1793. E. Jendek.

CASE 3389: *Heterocarpus gibbosus* Bate, 1888 (Crustacea, Decapoda, PANDALIDAE): proposed replacement of the holotype by a neotype. X. Li, T.-Y. Chan & P.K.L. Ng.

CASE 3390: *Archaeopteryx lithographica* von Meyer, 1861: proposed conservation of usage by designation of a neotype. W.J. Bock.

CASE 3391: IXODIDAE Bonaparte, 1838 (Aves, Passeriformes): proposed emendment of spelling to IXOSIDAE to remove homonymy with IXODIDAE C.L. Koch, 1844 (Acari, Parasitiformes). W.J. Bock & J.E. Keirans.

CASE 3392: *Hemerobius elegans* Stephens, 1836 (currently *Sympherobius elegans*) and *Hemerobius elegans* Guérin-Méneville, 1844 (currently *Berchmansus elegans*) (Insecta, Neuroptera): proposed conservation of the specific names. J.D. Oswald.

CASE 3393: *Dactylozodes* Chevrolat, 1838 (Insecta, Coleoptera): proposed conservation of usage. C.L. Bellamy & T.M. Rodriguez.

CASE 3394: *Etisus* H. Milne Edwards, 1834, and *Chlorodiella* Rathbun, 1897 (Crustacea, Decapoda, Brachyura). Proposed conservation of the generic names by suppression of the generic name *Clorodius* A.G. Desmarest, 1823. P.K.L. Ng & L.B. Holthuis.

Case 3343***Gigantopecten* Rovereto, 1899 and *Lissochlamys* Sacco, 1897
(Mollusca, Bivalvia, PECTINIDAE): proposed conservation**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the names *Gigantopecten* Rovereto, 1899 and *Lissochlamys* Sacco, 1897 for two genera of Neogene scallops (PECTINIDAE) by suppression of their senior objective synonyms, *Macrochlamys* Sacco, 1897 and *Lissochlamis* Sacco, 1897 respectively. *Gigantopecten* is a replacement name for *Macrochlamys* Sacco, 1897 which is a junior homonym of the gastropod name *Macrochlamys* Benson, 1832.

Keywords. Nomenclature; taxonomy; Mollusca; Bivalvia; PECTINIDAE; *Macrochlamys*; *Macrochlamis*; *Lissochlamys*; *Lissochlamis*; *Gigantopecten*; *Gigantopecten latissimus*; *Lissochlamys excisa*; Cenozoic; Neogene; Europe.

1. The names *Macrochlamis* Sacco, 1897a (11 June) (p. 101) and *Lissochlamis* Sacco, 1897a (p. 102) were first introduced for two subgenera of scallops (family PECTINIDAE). In this work Sacco listed the taxa that he expected to include in a forthcoming part of his extensive series of monographs under the same title and therefore did not include descriptions, illustrations, or bibliographic references. The type species of *Macrochlamis* was given as *Ostrea latissima* Brocchi, 1814 (p. 101) and that for *Lissochlamis* as *Pecten excisus* Bronn, 1831 (p. 102). Because a type species and included species were listed for each name, these names are available under Article 12.2.5 of the Code.

2. The spellings of *Macrochlamis* and *Lissochlamis* were changed to *Macrochlamys* and *Lissochlamys* Sacco (1897b (30 December), pp. 32, 46) in a monograph with the same title and part numbers as published in the preceding *Bollettino* article (Sacco, 1897a). Although the monograph contains taxonomic descriptions, illustrations, and bibliographic references, there was no mention of the spellings 'Macrochlamis' and 'Lissochlamis' that appeared in the *Bollettino*, nor was reference to the *Bollettino* article provided. However, the monograph clearly introduced some substantial changes. Several varietal names were introduced that did not appear in the 1897a listing, and the subgeneric name *Chlamys* (*Felipes*) Locard in Carus, 1889, that appeared in Sacco (1897a, p. 101), was replaced by *Chlamys* (*Manupecten*) Monterosato, 1889 in Sacco (1897b, p. 36). Sacco (1897c (31 December), pp. 15-19)

published a note in which he again used the subgeneric names *Chlamys* (*Macrochlamys*) and *Chlamys* (*Lissochlamys*) spelled with a 'y'.

3. Rovereto (1899, p. 90) recognized that the name *Macrochlamys* Sacco, then in use, is a junior homonym of *Macrochlamys* Benson, 1832 (Gastropoda) and introduced the replacement name *Gigantopecten* for Sacco's subgenus. Later, Sacco (1904, p. 143) ratified Rovereto's (1899) action by recognizing the name *Gigantopecten*. Ugolini (1906, p. 187) was apparently the first palaeontologist, other than Sacco, to accept Rovereto's (1899) action. In defining the subgenus *Gigantopecten* Ugolini expanded the diagnosis of the subgenus *Macrochlamys* given by Sacco (1897b).

4. Hertlein (1969, p. N358), in the *Treatise on Invertebrate Paleontology*, followed by Vokes (1980, p. 229), used the subgeneric name *Chlamys* (*Macrochlamis*) Sacco, 1897a, including *Macrochlamys* Sacco, 1897b and *Gigantopecten* Rovereto, 1899 in its synonymy without discussion. Nevertheless, these actions provided for a continuing division among palaeontologists as to whether this taxon should be named *Gigantopecten* or *Macrochlamis*. Both authors also regarded *Lissochlamis* as the correct original spelling and *Lissochlamys* as a junior objective synonym.

5. Since 1969, only a few authors have discussed (rather than merely listed) the alternative names for these European genera. Malatesta (1974, p. 52) wrote forcefully in favour of the name *Gigantopecten* emphasizing that the name *Macrochlamis* could not be typographically correct because *Macrochlamys* is a composite word using the pre-existing word *Chlamys*. He concluded that to stabilize the name on the basis of priority rather than a spelling error seemed contrary to logic. Freneix et al. (1987, p. 32) agreed with Malatesta (1974) and raised *Gigantopecten* to generic rank, advocating that *Lissochlamis* should also be automatically emended to *Lissochlamys*. However, Smith (1991, p. 72) argued in favour of the original spelling *Macrochlamis* over *Macrochlamys* on the basis of priority. Marshall (1991, p. 111) reviewed the dates of Sacco's publications and regarded the use of 'chlamis' in the names *Macrochlamis* and *Lissochlamis* to have been an incorrect transliteration of the Greek word 'chlamys' rather than an orthographic error. Because incorrect transliterations are not subject to automatic emendation (see Article 32.5.1) Marshall concluded that *Macrochlamys* and *Lissochlamys* were unjustified emendations. Most European palaeontologists, however, have not accepted this interpretation. In a sample of publications of the past 20 years, we counted 12 that used the name *Macrochlamis* (Studencka & Studencki, 1988; Marshall, 1991; Smith, 1991; Nevesskaya et al., 1993; Pedley & Grasso, 1994; Vera-Pelaez et al., 1995; Dulai, 1996; Roetzel et al., 1999; Mandic & Piller, 2001; Górká, 2002; Harzhauser et al., 2003; Mandic, 2004), eight that used *Macrochlamys* (Atanackovic, 1985; Andr s Galache & de Porta Vernet, 1987; Caretto, 1987;  tyrok y, 1987; Dermitzakis & Georgiades-Dikeoulia, 1987; Blondel & Demarcq, 1990; Mikuř, 1998; Schultz, 1998), and 48 that used the name *Gigantopecten* (Barrier et al., 1987; Bongrain, 1987, 1988a, 1988b, 1992, 1993, 1995, 2003; Ben Moussa et al., 1987, 1988, 1989;  tyrok y, 1987; Dermitzakis & Georgiades-Dikeoulia, 1987; Freneix et al., 1987; Moissette, 1988; Cavelier, 1989; Philippe & Savay-Guerraz, 1989; Blondel & Demarcq, 1990; Demarcq, 1990a, 1990b, 1992; Demarcq & Schoepfer, 1990; Ben Moussa & Demarcq, 1992; Leone et al., 1992; Folliot et al., 1993; Ben Moussa, 1994; Civis et al., 1994; Pfister & Wegm ller, 1994; Studencka, 1994; Aguirre et al., 1996; Duranthon & Cahuzac, 1997; Cahuzac &

Cluzaud, 1998; Cardenas, 1998; Chira, 1998; Ginsburg et al., 1998; Mikuž, 1998, 2002; Studencka et al., 1998; Cahuzac & Tassy, 1999; Cahuzac & Turpin, 1999; Chaix et al., 1999; Monegatti & Raffi, 2001; Schultz, 2001; Lacour et al., 2002; Aguirre & Yesares Garcia, 2003; Courville & Bongrain, 2003; Santos et al., 2003; Martín et al., 2004). Although we shall not list the additional references, our search of the literature from 1897 to present thus far has found usages as follows: *Macrochlamis* (20), *Macrochlamys* (36) and *Gigantopecten* (73). Clearly, stability of nomenclature has been compromised.

6. In order to conserve the current usage of the name *Gigantopecten* Rovereto, 1899, for a common European Neogene pectinid bivalve, we propose under Article 23.9.3 the suppression of the name *Macrochlamis* Sacco, 1897a. Because *Macrochlamys* Sacco is a junior homonym of *Macrochlamys* Benson, 1832, the replacement name *Gigantopecten* Rovereto, 1899 will be conserved. Because it is an exactly analogous case, we also propose under Article 23.9.3 suppressing the name *Lissochlamis* in order to conserve the name *Lissochlamys*. Our records indicate that in the past 20 years, *Lissochlamis* has been used eight times (Schein-Fatton, 1988; Schein, 1989; Carter, 1990; Marshall, 1991; González Delgado et al., 1999; Schultz, 2001; Dijkstra & Goud, 2002; Schein, 2006) and *Lissochlamys* has been used seven times (Andrés, 1986; Andrés Galache & de Porta Vernet, 1987; Freneix et al., 1987; González Delgado, 1987; Castano et al., 1988; Da Rocha et al., 1989; Lozano Francisco, 1998). Since 1897, however, *Lissochlamys* has been used much more frequently (34 records in our database for *Lissochlamys* but only 13 for *Lissochlamis*).

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the following names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *Macrochlamis* Sacco, 1897;
 - (b) *Lissochlamis* Sacco, 1897;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Gigantopecten* Rovereto, 1899 (gender: masculine), type species *Ostrea latissima* Brocchi, 1814 by original designation for the replaced generic name *Macrochlamys* Sacco, 1897;
 - (b) *Lissochlamys* Sacco, 1897 (gender: feminine), type species by original designation *Pecten excisus* Bronn, 1831;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *latissima* Brocchi, 1814, as published in the binomen *Ostrea latissima* (specific name of the type species of *Gigantopecten* Rovereto, 1899, the replacement name of *Macrochlamys* Sacco, 1897);
 - (b) *excisus* Bronn, 1831, as published in the binomen *Pecten excisus* (specific name of the type species of *Lissochlamys* Sacco, 1897);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
 - (a) *Macrochlamis* Sacco, 1897 (as suppressed in (1)(a) above);
 - (b) *Lissochlamis* Sacco, 1897 (as suppressed in (1)(b) above);
 - (c) *Macrochlamys* Sacco, 1897 (a junior homonym of *Macrochlamys* Benson, 1832).

References

- Aguirre, J., Braga, J.C., Jimenez, A.P. & Rivas, P.** 1996. Substrate-related changes in pectinid fossil assemblages. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **126**: 291–308.
- Aguirre, J. & Yesares Garcia, J.** 2003. Tafonomía y análisis secuencial del Plioceno Inferior en el sector NE de la cuenca de Almería-Níjar (SE de España). *Revista Española de Paleontología*, **18**: 61–82.
- Andrés, I.** 1986. Contributions to the Paleocology of the Mollusca of the marine Pliocene in Huelva (Spain). *Iberus*, **6**: 1–17.
- Andrés Galache, I. & de Porta Vernet, J.** 1987. La distribución de los Pectinidae en el Neógeno de Huelva. Datos preliminares. Pp. 143–151 in: Departamento de Paleontología de la Universidad de Salamanca (Ed.), *Paleontología del Neógeno de Huelva*. Ediciones Universidad de Salamanca, Salamanca.
- Atanackovic, M.A.** 1985. *Mekusci Morskog Miocena Bosne. Geologija Bosne i Hercegovine, Fossilna Fauna i Flora*, **1**: 1–308.
- Barrier, P., Casale, V., Costa, B., De Geronimo, I., Oliveri, O. & Rosso, A.** 1987. La sezione plio-pleistocenica di Pavigliana (Reggio Calabria). *Bollettino della Società Paleontologica Italiana*, **25**(2): 107–144.
- Ben Moussa, A.** 1994. Les bivalves néogènes du Maroc septentrional (façades atlantique et méditerranéenne). Biostratigraphie, paléobiogéographie et paléoécologie. *Documents du Laboratoire de Géologie de Lyon*, **132**: 1–281.
- Ben Moussa, A., Brebion, P., Lauriat-Rage, A. & Demarcq, G.** 1988. Intérêt paléobiologique des mollusques Messiniens de Melilla (NE Maroc). *Revue de Paléontologie*, **7**: 335–358.
- Ben Moussa, A. & Demarcq, G.** 1992. Temporal and spatial distribution of neogene Pectinids' communities in Western Mediterranean. *Paleontologia i Evolucio*, **24–25**: 175–183.
- Ben Moussa, A., Demarcq, G. & Lauriat-Rage, A.** 1987. Pectinidés messiniens du bassin de Melilla (NE Maroc): comparaisons interrégionales et intérêts paléobiologiques. *Revue de Paléobiologie (Geneva)*, **6**: 111–129.
- Ben Moussa, A., El Hajjaji, K., Pouyet, S. & Demarcq, G.** 1989. Les mégafaunes marines du Messinien de Melilla (Nord-Ouest Maroc). *Palaeogeography, Palaeoclimatology, Palaeoecology*, **73**: 51–60.
- Benson, W.H.** 1832. Conchological notices chiefly relating to the land and freshwater shells of the Doab and of the Gangetic Provinces of Hindostan [sic]. *Journal of the Asiatic Society of Bengal*, **1**: 75–77.
- Blondel, T. & Demarcq, G.** 1990. Les Pectinidae du Burdigalien terminal- Langhien de Tunisie: données paléobiologiques et paléogéographiques. *Revue de Paléobiologie*, **9**(2): 243–255.
- Bongrain, M.** 1987. Utilisation du modèle de von Bertalanffy comme descripteur de la croissance absolue de la coquille d'un pectinide fossile: *Pecten (Gigantopecten) ligerianus* (D. et D.). *Haliotis*, **16**: 479–487.
- Bongrain, M.** 1988a. *Les Gigantopecten (Pectinidae: Bivalvia) du Miocène français. Croissance, morphogénèse, paléoécologie et évolution du groupe*. 325 pp. Cahiers de Paléontologie, Éditions du CNRS, Paris.
- Bongrain, M.** 1988b. A propos des *Gigantopecten* du Muséum Requien d'Avignon: les relations morphologie – milieu chez les Pectinidae. *Bulletin de la Société d'Étude des Sciences naturelles de Vaucluse*, **58**: 99–109.
- Bongrain, M.** 1992. Le rôle des hétérochronies du développement dans l'apparition et la différenciation des *Gigantopecten* (Pectinidae, Bivalvia) Néogènes. Esquisse de la phylogénie du groupe. *Geobios, Mémoire spécial*, **14**: 77–85.
- Bongrain, M.** 1993. 'Chlamys melii': un morphe, plus ou moins tératologique, de *Gigantopecten nodosiformis* (Pectinidae, Bivalvia) du Néogène de la Téthys occidentale. *Geobios*, **26**: 685–697.
- Bongrain, M.** 1995. Traces de bioérosion sur un Pectinidae (Bivalvia) du Miocène d'Aquitaine (SO France): un cas possible de commensalisme entre Pectinidae et Capulidae. *Geobios*, **28**: 347–358.
- Bongrain, M.** 2003. Révision de *Flabellipecten solarium* (Lamarck, 1819) (Mollusca, Bivalvia, Pectinidae) du Miocène moyen et supérieur de l'Ancien Monde. *Geodiversitas*, **25**: 657–679.

- Brocchi, G.** 1814. *Conchiologia fossile subapennina con osservazioni geologiche sugli Appenini et sul suolo adiacente*, vol. 2. Pp. 214–712. Stamperia Reale, Milan.
- Bronn, H.G.** 1831. *Italiens Tertiär-Gebilde und deren organische Einschlüsse*. 176 pp. Groos, Heidelberg.
- Cahuzac, B. & Cluzaud, A.** 1998. Observations géologiques sur la carrière de Bougue (Landes) et animations scientifiques dans cette commune. *Bulletin de la Société de Borda*, **451**: 413–442.
- Cahuzac, B. & Tassy, P.** 1999. Sur trois nouveaux sites marins à *Zygodolopodon turicensis* (Proboscidea, Mammalia) dans le Miocène moyen d'Aquitaine. *Bulletin de la Société d'Histoire naturelle de Toulouse*, **135**: 105–112.
- Cahuzac, B. & Turpin, L.** 1999. Stratigraphie isotopique du strontium dans le Miocène Marin du bassin d'Aquitaine (SW France). *Revista de la Sociedad geologica de Espana*, **12**(1): 37–56.
- Cardenas, J.** 1998. Nuevas localidades para *Amusiopecten (C.) koheni*. *Batalleria*, **8**: 23–28.
- Caretto, P.J.** 1987. Significato paleoclimato di fauna a molluschi del Pliocene piemontese. *Atti della Società italiana di Scienze naturali e del Museo civico di Storia naturale di Milano*, **128**(1–2): 107–137.
- Carter, J.G.** 1990. Evolutionary significance of shell microstructure in the Palaeotaxodonta, Pteriomorphia and Isofilibranchia (Bivalvia: Mollusca). Pp. 135–296 in Carter, J.G. (Ed.), *Skeletal Biomineralization: Patterns, Processes and Evolutionary Trends*, vol. 1. Van Nostrand Reinhold, New York.
- Carus, J.V.** 1889–1903. *Prodromus faunae mediterraneae, sive Descriptio animalium maris Mediterranei incolarum, quam comparata silva rerum quatenus immotuit, adiectis locis et nominibus vulgaribus eorumque auctoribus*, vol. 2. Brachiostomata, Mollusca, Cephalopoda, Tunicata, Vertebrata. ix, 854 pp. [Pp. 1–292 issued 1889]. Schweizerbart, Stuttgart.
- Castano, M.J., Civis, J. & González Delgado, J.A.** 1988. Los molluscos del Plioceno de la Palma del Condado y Moguer (Huelva). Aproximacion paleoecologica. *Iberus*, **8**(2): 173–186.
- Cavelier, C.** 1989. Le Bassin Parisien au Néogène. Progrès récents. Pp. 41–54 in: *Actes du 114e Congrès National des Sociétés Savantes, Section des Sciences, Paris, 1989. Géologie du Bassin Parisien*. Comité des Travaux historiques et scientifiques, Paris.
- Chaix, C., Cahuzac, B. & Cluzaud, A.** 1999. Les Scléractiniaires du Serravallien de Pessac (Nord-aquitaine, France); approche paléoécologique. *Geobios*, **32**(1): 33–62.
- Chira, C.** 1998. Badenian (Middle Miocene) bivalve faunas from the Mures Passageway, Faget Basin and Hateg-Strei Basin (Roumania): comparative taxonomic structure and palaeoecology. *Studia Universitatis Babeş-Bolyai, Geologia*, **43**(2): 13–39.
- Civis, J., Alonso Gavilan, G., González Delgado, J.A. & Braga, J.C.** 1994. Sédimentation carbonatée transgressive sur la bordure occidentale du couloir nord-bétique pendant le Tortonien supérieur (Fm Calcarenita de Niebla, SW de l'Espagne). *Geologie Méditerranéenne*, **21**(1–2): 9–18.
- Courville, P. & Bongrain, M.** 2003. Les Pectinidae Miocènes des faluns (Ouest de la France). Intérêts biostratigraphiques des associations. *Annales de Paléontologie*, **89**: 125–151.
- Čtyroký, P.** 1987. Eggenburgien, Ottngangien and Karpatien (Early Miocene) along the bohemian Massif in Moravia (Czechoslovakia). *Annales Instituti Geologici Publici Hungarici*, **70**: 119–123.
- Da Rocha, R.B., Marquês, B.L., Antunes, M.T. & Pais, J.** 1989. Noticia explicativa da folha 52-B (Albufeira). Pp. 5–36 in: *Carta Geológica de Portugal, escala 1:50,000*. Serviços geológicos de Portugal, Lisboa.
- Demarcq, G.** 1990a. Pectinidés néogènes: proposition d'échelle biostratigraphique pour la Méditerranée. *Geobios*, **23**: 149–159.
- Demarcq, G.** 1990b. Les faunes de Pectinidés du Néogène bétique. *Documents et Travaux de l'Institut géologique Albert de Lapparent (IGAL)*, **12–13**: 45–48.
- Demarcq, G.** 1992. Biostratigraphic scale of Mediterranean Neogene Pectinids. *Paleontologia i Evolució*, **24–25**: 439–440.
- Demarcq, G. & Schoepfer, P.** 1990. Les Pectinidés du Miocène de Suisse occidentale. *Eclogae Geologicae Helvetiae*, **83**(3): 751–791.

- Dermitzakis, M. & Georgiades-Dikeoulia, E.** 1987. Biozonation of the Neogene invertebrate megafauna of the Hellenic area. *Annales Instituti Geologici Publici Hungarici*, **70**: 125–136.
- Dijkstra, H.H. & Goud, J.** 2002. Pectinoidea (Bivalvia, Propeamussiidae & Pectinidae) collected during the Dutch CANCAP and MAURITANIA expeditions in the south-eastern region of the North Atlantic Ocean. *Basteria*, **66**: 31–82.
- Dulai, A.** 1996. Taxonomic composition and palaeoecological features of the Early Badenian (Middle Miocene) bivalve fauna of Szob (Börzsöny Mts, Hungary). *Annales Historico-Naturales Musei Nationalis Hungarici* (Budapest), **88**: 31–56.
- Duranthon, F. & Cahuzac, B.** 1997. Eléments de corrélation entre échelles marines et continentales: les données du Bassin d'Aquitaine au Miocène. Actes du Congrès Biochrom '97 (Montpellier, 14–17 avril), Aguilar, J.-P. Legendre, S. et Michaux, J. (Eds.). *Mémoires et Travaux E.P.H.E. de l'Institut de Montpellier*, **21**: 591–608.
- Folliot, M., Pujol, C., Cahuzac, B. & Alvierie, J.** 1993. Nouvelles données sur le Miocène moyen marin ('Sallomacien') de Gironde (Bassin d'Aquitaine-France). Approche des paléoenvironnements. *Ciencias da Terra*, **12**: 117–131.
- Freneix, S., Saint Martin, J.-P. & Moissette, P.** 1987. Bivalves Ptériomorphes du Messinien d'Oranie (Algérie occidentale). *Bulletin du Muséum national d'Histoire naturelle, Paris*, (4)9(1987)(Section C)(no. 1): 3–61.
- Ginsburg, L., Arnaud, M., Lary, C. & Monleau, C.** 1998. Le Miocène du bassin de Vence (Alpes-Maritimes, France): stratigraphie et paléogéographie. *Geodiversitas*, **20**(2): 229–238.
- González Delgado, J.A.** 1987. Tafonomía y paleontología en diferentes yacimientos de la formación arenas de Huelva. Pp. 89–125 in: Departamento de Paleontología de la Universidad de Salamanca (Ed.), *Paleontología del Neógeno de Huelva*. Ediciones Universidad de Salamanca, Salamanca.
- González Delgado, J.A., Civis, J. & Andrés, I.** 1999. Las comunidades bentónicas (Moluscos y foraminíferos) del Plioceno inferior de Oued Arjat (cuenca de Bou Regreg, Marruecos). *Revista de la Sociedad geológica de España*, **12**(1): 85–92.
- Górka, M.** 2002. The Lower Badenian (Middle Miocene) coral patch reef at Grobie (southern slopes of the Holy Cross Mountains, central Poland), its origin, development and demise. *Acta Geologica Polonica*, **52**: 521–534.
- Harzhauser, M., Mandic, O. & Zuschin, M.** 2003. Changes in Paratethyan marine molluscs at the Early/Middle Miocene transition: diversity, palaeogeography and palaeoclimate. *Acta Geologica Polonica*, **53**: 323–339.
- Hertlein, L.G.** 1969. Family Pectinidae Rafinesque, 1815. Pp. N348–N373 in Moore, R.C. & Teichert, C. (Eds.), *Treatise on Invertebrate Paleontology*, Part N, Mollusca 6, Bivalvia. Geological Society of America and University of Kansas Press, Lawrence, Kansas.
- Lacour, D., Lauriat-Rage, A., Saint Martin, J.-P., Videt, B., Néraudeau, D., Goubert, E. & Bongrain, M.** 2002. Les associations de bivalves (Mollusca, Bivalvia) du Messinien du Bassin de Sorbas (SE Espagne). *Geodiversitas*, **24**: 641–657.
- Leone, F., Pontillo, C. & Spano, C.** 1992. Benthic paleocommunities of the Middle-Upper Miocene lithostratigraphic units from the Cagliari Hills (Southern Sardinia, Italy). *IGCP Project 276, Newsletter*, **5**: 151–158.
- Lozano Francisco, M.C.** 1998. Los Bivalvos (Mollusca, Bivalvia) del Plioceno de la Provincia de Málaga (España). *Malakos*, **6–7**: 16–58.
- Malatesta, A.** 1974. Malacofauna pliocenica Umbria. *Memorie per servire all descrizione della Carta Geologica d'Italia*, **13**: 1–480.
- Mandic, O.** 2004. Pectinid bivalves from the Grund Formation (Lower Badenian, Middle Miocene, Alpine-Carpathian Foredeep) – Taxonomic revision and stratigraphic significance. *Geologica Carpathica*, **55**: 129–146.
- Mandic, O. & Piller, W.E.** 2001. Pectinid coquinas and their paleoenvironmental implications – Examples from the early Miocene of northeastern Egypt. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **172**: 171–191.
- Marshall, B.A.** 1991. Dates of publication and supraspecific taxa of Bellardi and Sacco's (1873–1904) 'I molluschi dei terreni terziari del Piemonte e della Liguria' and Sacco's (1890) 'Catalogo paleontologico del bacino terziario del Piemonte'. *The Nautilus*, **105**: 104–115.

- Martin, J.M., Braga, J.C., Aguirre, J. & Betzler, C.** 2004. Contrasting models of temperate carbonate sedimentation in a small Mediterranean embayment: the Pliocene Carboneras Basin, SE Spain. *Journal of the Geological Society, London*, **161**: 387–399.
- Mikuž, V.** 1998. Middle Miocene pectinids from vicinity of Senilj, northeastern Slovenia. *Razprave, Slovenska Akademija Znanosti in Umetnosti. Razred za Naravoslovne Vede – Dissertationes – Academia Scientiarum et Artium Slovenica. Classis IV: Historia Naturalis*, **39**: 81–135. [In Slovenian].
- Mikuž, V.** 2002. The large pectinid shell from Badenian beds near Plan, NE Slovenia. *Slovenska Akademija Znanosti in Umetnosti Razred za Naravoslovne Vede Razprave*, **43**: 219–239. [In Slovenian].
- Moissette, P.** 1988. Faunes de Bryozoaires du Messinien d'Algérie occidentale. *Documents du Laboratoire de Géologie de la Faculté des Sciences de Lyon*, **102**: 1–351.
- Monegatti, P. & Raffi, S.** 2001. Taxonomic diversity and stratigraphic distribution of Mediterranean Pliocene bivalves. *Palaeogeography, Palaeoclimatology, Palaeoecology*, **165**: 171–193.
- Monterosato, T. de.** 1889 (1 January). Coquilles marines Marocaines. *Journal de Conchyliologie*, **37**: 20–40.
- Neveeskaya, L.A., Goncharova, I.A., Paramonova, N.P., Popov, S.V., Babak, E.V., Bagdasaryan, K.G. & Voronina, A.A.** 1993. A key to the Miocene bivalve molluscs of southwestern Eurasia. *Trudy Paleontologicheskogo Instituta*, **247**: 1–412. [In Russian].
- Pedley, H.M. & Grasso, M.** 1994. Upper Miocene peri-Tyrrhenian Reefs in the Calabrian Arc: sedimentological, tectonic and palaeogeographic implications. *Géologie Méditerranéenne*, **21**(1–2): 123–136.
- Pfister, T. & Wegmüller, U.** 1994. Beschreibung, Vergleich und Verbreitung der Bivalven-Arten aus den Belpbergschichten (Obere Meeresmolasse, mittleres Burdigalien) in der Umgebung von Bern, Schweiz. 1 Teil: Palaeotaxodonta und Pteriomorphia, exklusive Ostreaea. *Eclogae Geologicae Helvetiae*, **87**: 895–973.
- Philippe, M., & Savay-Guerraz, H.** 1989. La 'pierre du Midi' à Lyon et à Vienne à l'époque gallo-romaine : utilisation, chronologie et provenance. *Bulletin mensuel de la Société liméenne de Lyon*, **58**(5): 141–172.
- Roetzel, R., Pervesler, P., Mandic, O. & Harzhauser, M.** 1999. Exkursion B5—Limberg-Steinbruch Hengl. Pp. 298–306 in Roetzel, R. (Ed.): Arbeitstagung Geologische Bundesanstalt 1999. Geologische Karten OK 9 Retz and OK 22 Hollabrunn. *Geogenes Naturraumpotential der Bezirke Horn und Hollabrunn—3–7 Mai 1999*. 356 pp. Geologische Bundesanstalt, Wien.
- Rovereto, G.** 1899. Rectification de nomenclature. *Revue critique de Paléozoologie*, **3**(2): 90.
- Sacco, F.** 1897a (11 June). I molluschi dei terreni terziarii del Piemonte e della Liguria descritti dal Dott. Federico Sacco, Parte XXIII e XXIV. *Bollettino dei Musei di Zoologia ed Anatomia comparata della Reale Università di Torino*, **12**(298): 99–102.
- Sacco, F.** 1897b (30 December). I molluschi dei terreni terziarii del Piemonte e della Liguria. Parte 24 (Pectinidae). 116 pp. Clausen, Torino.
- Sacco, F.** 1897c (31 December). Novità malacologiche. *Rivista di Paleontologia*, Anno 3(fasc. 5–6): 15–19.
- Sacco, F.** 1904. *I molluschi dei terreni terziarii del Piemonte e della Liguria*. Parte 30: Aggiunte e correzioni. Considerazioni generali. Indice generale dell'opera. 203, xxxvi pp. Clausen, Torino.
- Santos, A., Mayoral, E. & Muniz, F.** 2003. New trace fossils produced by etching molluscs from the Upper Neogene of the southwestern Iberian Peninsula. *Acta Geologica Polonica*, **53**(3): 181–188.
- Schein, E.** 1989. Pectinidae (Mollusca, Bivalvia) bathyaux et abyssaux des Campagnes BIOGAS (Golfe de Gascogne) systématique et biogéographie. *Annales de l'Institut Océanographique, Nouvelle Série*, **65**(2): 59–125.
- Schein, E.** 2006. A new deep-sea pectinid bivalve from thermal vents of Manus back-arc Basin (south-western Pacific), *Sinepecten segonzaci* n.gen., n.sp. (Pectinoidea: Pectinidae), and its relationships with the genera *Bathypecten* and *Catillopecten*. *Zootaxa*, **1135**: 1–27.

- Schein-Fatton, E.** 1988. Un Pectinacea (Bivalvia) très primitif: *Bathypecten vulcani*, du site hydrothermal de 13°N (Pacifique oriental). *Oceanologica Acta*, **8** (Special Volume): 83–98.
- Schultz, O.** 1998. *Tertiärfossilien Österreichs: Wirbellose, niedere Wirbeltiere und marine Säugetiere*. 160 pp. Goldschneck-Verlag, Korb, Germany.
- Schultz, O.** 2001. *Catalogus Fossilium Austriae. Ein systematisches Verzeichnis aller auf österreichischen Gebiet festgestellten Fossilien*. Band 1, Teil 1, Bivalvia neogenica (Nuculacea-Unionacea). 379 pp. Österreichischen Akademie der Wissenschaften, Wien.
- Smith, J.T.** 1991. Cenozoic giant pectens from California and the Tertiary Caribbean Province: *Lyropecten*, 'Macrochlamis', *Vertipecten*, and *Nodipecten* species. *U.S. Geological Survey Professional Paper*, **1391**: 1–155.
- Studencka, B.** 1994. Middle Miocene bivalve faunas from the carbonate deposits of Poland (Central Paratethys). *Géologie méditerranéenne*, **21**(1–2): 137–145.
- Studencka, B., Gontsharova, I.A. & Popov, S.Y.** 1998. The bivalve faunas as a basis for reconstruction of the Middle Miocene history of the Paratethys. *Acta Geologica Polonica*, **48**(3): 285–342.
- Studencka, B. & Studencki, W.** 1988. Middle Miocene (Badenian) bivalves from the carbonate deposits of the Wójcza-Pilczów Range (southern slopes of the Holy Cross Mountains, central Poland). *Acta Geologica Polonica*, **38**: 1–44.
- Ugolini, R.** 1906. Monografia dei Pettinidi neogenici della Sardegna. Parte prima: generi Chlamys, Hinnites, Inaequiptecten. *Paleontographica italica*, **12**: 155–207.
- Vera-Pelaez, J.L., Lozano-Francisco, M.C., Muniz-Solis, R., Gili, C., Martinell, J., Domenech, R., Palmqvist, K.P. & Guerra-Merchan, A.** 1995. Estudio preliminar de la malacofauna del Plioceno de Estepona (Malaga, Espana). *Iberus*, **13**(2): 93–117.
- Vokes, H.E.** 1980. *Genera of the Bivalvia: a systematic and bibliographic catalogue* (revised and updated). xxvii, 307 pp. Paleontological Research Institution, Ithaca.

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Case 3340***Heliacus* d'Orbigny, 1842 (Mollusca, Gastropoda): proposed conservation**

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Abstract. The purpose of this application, in reference to Article 24.2.5 of the Code, is to establish priority of the generic name *Heliacus* d'Orbigny, 1842 over *Torinia* Gray, 1842 (Mollusca, Gastropoda, ARCHITECTONICIDAE). The two nominal genera are subjective synonyms both published in the same year, but their relative priority remained unresolved. As a consequence both *Heliacus* and *Torinia* have been used in the literature, but *Heliacus* has predominant usage and *Torinia* seems to have been used only twice in the last 24 years. Evidence supports priority of the name *Heliacus* established by action of the First Reviser; however, suppression of the name *Torinia* is proposed to ensure stability.

Keywords. Nomenclature; taxonomy; Gastropoda; ARCHITECTONICIDAE; *Heliacus*; *Torinia*; *Heliacus cylindricus*; sundial shell; Western Atlantic.

1. d'Orbigny (1842, p. 68) established the genus *Heliacus* as a 'Division' of *Solarium* [= *Architectonica*] with a single species, the type species by monotypy, *Solarium herberti* (an incorrect subsequent spelling of *herberti*) Deshayes, 1830. The lectotype of *Solarium herberti* Deshayes is in the Museum National d'Histoire Naturelle, Paris (see Bieler, 1985, pp. 97–98).

2. Gray (1840, p. 147) first introduced the name *Torinia* without a description or indication (nomen nudum). Later, Gray (1842, p. 60) provided a diagnosis: '*Torinia* differs [from *Solarium* = *Architectonica*] in having a nearly orbicular operculum, which is very convex, and marked with a spiral ridge looking like a pagoda'. This description of part of the animal makes the name *Torinia* available from 1842 under Article 12.1 of the Code.

3. The first included species, *Trochus cylindraceus*, was listed as the type species of *Torinia* by Gray (1847, p. 151) but no author or reference was cited. Gray showed the generic name as dating from both 1840 and 1842 and listed *Heliacus* as a synonym. The name *Trochus cylindraceus* was first introduced by Chemnitz (1781, p. 95, pl. clxx, figs. 1639a–b) in a work in which species-group names are not available under Opinion 184 (1944) and Direction 1 (1954) (see also BZN 61: 181). The first

author to use the name *Trochus cylindraceus* in an available work was Dillwyn, 1817 (p. 767). The nominal type species of *Torinia* is thus *Trochus cylindraceus* Dillwyn, 1817. However, Gmelin (1791, p. 3572) had earlier established the name *Trochus cylindricus* based on the same Chemnitz illustrations and that name is therefore a senior objective synonym of *T. cylindraceus*. The original Chemnitz material is thought to be lost and the type locality is unknown. However, the Chemnitz figures are good and it is possible to identify them as being conspecific with *Solarium herberti* Deshayes. *Heliacus* and *Torinia* are thus subjective synonyms.

4. Harris (1897, p. 245) argued that '*Torinia* must fall in synonymy' with *Heliacus* because he considered Gray's 1840 and 1842 usage as nomina nuda. Iredale (1911, p. 255) concurred. Subsequently, Barnard (1963, p. 158) followed Smith (1910, pp. 199–200) in considering that the description of the operculum, without reference to a species, rendered *Torinia* unacceptable. This position is contrary to the Code as the operculum is part of the animal.

5. Iredale (1913), in a detailed collation of the molluscan parts of the *Synopses of the Contents of the British Museum* with comments on the rarity of editions 42 (1840) and 44 (1842), advocated the rejection of all the new names introduced by Gray (1842), suggesting that they should date from Gray (1847). Iredale (1913, p. 301) admitted that his proposal was 'simply an individual opinion' and listed 'the whole of the diagnoses so that this matter may be fully discussed, and a definite policy of rejection or acceptance adopted'. Iredale made no mention of priority.

6. Thiele (1925, p. 80) used the name *Torinia*, accepting its introduction from the description of the operculum. Referring to Iredale (1911), he pointed out that *Heliacus* might be somewhat older but that its publication date was not completely certain. Thiele (1929, p. 183) maintained *Torinia* as senior synonym of *Heliacus*, dating both names from 1842.

7. Tomlin (1928, p. 333) used the generic name *Heliacus*, referring to Iredale's 1913 paper, and added his opinion that 'a short comparative account of operculum only . . . hardly seems a sufficient diagnosis on which to found a genus, and the reasons for rejection given by Iredale on p. 301 may well be applied to this case at any rate'.

8. Bayer (1948, p. 3) used the name *Torinia*, opening his paper by stating: 'opinions are divided in relation to what generic name has priority, *Heliacus* or *Torinia*. In proof of this I will quote . . . the opinions of two authorities'. He then cited Thiele (1925, p. 80) and Tomlin (1928, p. 333). Bayer qualified his usage of the name *Torinia* by adding that in accordance with his declaration in a previous paper (1940, p. 223) he followed Thiele (1929) 'in relation to the generic names, . . . but it is not my intention to state thereby that I always completely agree with the opinions of his author [sic]'.

9. Woodring (1959, p. 168) gave a short history of *Heliacus* and *Torinia* and stated: 'in the absence of data concerning priority within the year 1842, *Heliacus* is given precedence, for in that year it was on a much more satisfactory footing than *Torinia*'.

10. Bieler (1985, pp. 95–98) published a long discussion of the history of *Heliacus* and *Torinia* concluding that both names were validly introduced in 1842 but that their relative priority remained unresolved. He pointed out that type material and an extensive original description are available for *Heliacus* whereas *Torinia* has no known type material.

11. Despite recent attempts to date more precisely the parts of d'Orbigny's work the date of publication for most of the parts in volume 2 is unknown. Available evidence and inference point to the part [no. 5, pp. 65–80] containing *Heliacus* having been published early in 1842 but there is as yet no publishable information to confirm this supposition. The exact date of Gray's work is also unknown. The part of the catalogue containing mollusks is signed by Gray on June 24, 1842 but that is the date he finished his contribution, not the publication date. Other parts have different dates, the latest being 27 June 1842. That is the earliest possible date but it could have been printed anytime thereafter and in the absence of a definite publication date must be dated as the last day of 1842.

12. Bieler (1985), in his discussion, stated that he was maintaining the use of the name *Heliacus* as had most authors in the previous decades and that an application would be made to the the Commission for suppression of *Torinia* Gray, 1842. A search of the literature of the past 50 years found that *Torinia* had been used as a senior synonym in only 15 works by 11 authors, the most recent being in 1981 and 1982, the only two uses found for the past 24 years. In contrast, *Heliacus* has been used as a senior synonym in over 153 works by at least 85 authors. A list of these references is held by the Commission Secretariat.

13. While it is possible that Bieler's (1985) selection, or that of Harris (1897), could be taken as action of the First Reviser under Articles 24.2.1 and 24.2.2 of the Code, such action could be upset by determination of a precise date for one of the two works which were, as matters now stand under Article 24.2.5, published simultaneously.

14. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the generic name *Torinia* Gray, 1842 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Generic Names in Zoology the name *Heliacus* d'Orbigny, 1842 (gender: masculine), type species by monotypy *Solarium heberti* Deshayes, 1830 (an incorrect subsequent spelling of *herberti*), a junior subjective synonym of *Trochus cylindricus* Gmelin, 1791;
- (3) to place on the Official List of Specific Names in Zoology the name *cylindricus* Gmelin, 1791, as published in the binomen *Trochus cylindricus*, senior synonym of *Solarium heberti* Deshayes, 1830, specific name of the type species of *Heliacus* d'Orbigny, 1842;
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Torinia* Gray, 1842 (as suppressed in (1) above).

References

- Barnard, K.H.** 1963. Contributions to the knowledge of South African marine Mollusca. Part III. Gastropoda: Prosobranchiata: Taenioglossa. *Annals of the South African Museum*, **47**(1): 1–199.
- Bayer, C.** 1940. Catalogue of the Solariidae in the Rijksmuseum van Natuurlijke Historie. I. *Solarium* s.s. *Zoologische Mededeelingen*, **22**: 223–256.
- Bayer, C.** 1948. Catalogue of the Solariidae in the Rijksmuseum van Natuurlijke Historie. III. *Torinia*. *Zoologische Verhandelingen*, **4**: 1–44.

- Bieler, R.** 1985. Die Gattungen der Architectonicidae (Gastropoda: Allogastropoda). Teil 3: *Pseudotorinia*, *Nipteraxis*, *Heliacus*, *Eosolarium*. *Archiv für Molluskenkunde*, **116**(1/3): 89–117.
- Chemnitz, J.H.** 1781. *Neues systematisches Conchylien Cabinet*, vol. 5. [20], 324 pp., pls. clx-clxxxiii. Raspe, Nürnberg.
- Deshayes, G.P.** 1830. *Encyclopédie Méthodique. Histoire naturelle des vers*, vol. 2, part 1. 256 pp. Agasse, Paris.
- Dillwyn, L.W.** 1817. *A descriptive catalogue of Recent shells, arranged according to the Linnaean method; with particular attention to the synonymy*, vol. 2. Pp. 581–1092. Arch, London.
- Gmelin, J.F.** 1791. *Caroli a Linné Systema Naturae*, Ed. 13, vol. 1, pt. 6 (Vermes). Pp. 3021–3910. Lipsiae.
- Gray, J.E.** 1840. Mollusca. Pp. 105–152 in: *Synopsis of the contents of the British Museum*, Ed. 42. Woodfall & Son, London.
- Gray, J.E.** 1842. Mollusca. Pp. 48–92 in: *Synopsis of the contents of the British Museum*, Ed. 44. Woodfall & Son, London.
- Gray, J.E.** 1847. A list of the genera of Recent Mollusca, their synonyma and types. *Proceedings of the Zoological Society of London*, **15**: 129–219.
- Harris, G.F.** 1897. *Catalogue of Tertiary Mollusca in the Department of Geology British Museum (Natural History). Part I. The Australasian Tertiary Mollusca*. xxvi, 407 pp. British Museum (Natural History), London.
- Iredale, T.** 1911. On some misapplied molluscan generic names. *Proceedings of the Malacological Society of London*, **9**(4): 253–263.
- Iredale, T.** 1913. A collation of the molluscan parts of the *Synopses of the Contents of the British Museum, 1838–1845*. *Proceedings of the Malacological Society of London*, **10**(4): 294–309.
- Orbigny, A.d'**. 1842. *Mollusques*. In Sagra, R., *Histoire physique, politique, et naturelle de l'Ile de Cuba*, vol. 2, parts 1–7. 112 pp. Bertrand, Paris.
- Smith, E.A.** 1910. On South African marine Mollusca, with descriptions of new species. *Annals of the Natal Museum*, **2**: 175–220.
- Thiele, J.** 1925. Gastropoda der Deutschen Tiefsee-Expedition. II. Teil. *Deutsche Tiefsee-Expedition 1898–1899*, **17**(2): 35–382. [Dual pagination; also numbered 1–348].
- Thiele, J.** 1929. *Handbuch der Systematischen Weichtierkunde*. Erster Teil. 376 pp. Gustav Fischer, Jena.
- Tomlin, J.R. le B.** 1928. Reports on the marine Mollusca in the collections of the South African Museum. *Annals of the South African Museum*, **25**(2): 313–335.
- Woodring, W.P.** 1959. Geology and paleontology of Canal Zone and adjoining parts of Panama. Description of Tertiary mollusks (Gastropods: Vermetidae to Thaididae). *U. S. Geological Survey Professional Paper*, **306-B**: 147–239.

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Case 3350***Oncopus* Thorell, 1876 and ONCOPODIDAE Thorell, 1876 (Arachnida, Opiliones): proposed conservation**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the generic name *Oncopus* Thorell, 1876 for a group of nine opilionids from Southeast Asia, together with the family-group names ONCOPODIDAE Thorell, 1876 and ONCOPODOIDEA Thorell, 1876 for five genera and 64 species from Asia, by suppressing the little-used senior homonym *Oncopus* Herrich-Schäffer, 1855 for two species of South American Lepidoptera.

Keywords. Nomenclature; taxonomy; Insecta; Lepidoptera; GEOMETRIDAE; moths; Arachnida; Opiliones; ONCOPODIDAE; *Oncopus*; *Oncopus doriae*; harvestmen; South-east Asia.

1. In 1855 Herrich-Schäffer (p. 99) introduced the generic name *Oncopus* for two species (*Paida citrosa* Geyer in Hübner, 1832 and *Paida transpecta* Geyer in Hübner, 1832) in the lepidopteran family LITHOSIIDAE (currently ARCTIIDAE) and designated *Paida citrosa* Geyer, 1832 as the type species. The same synopsis was given again in Herrich-Schäffer (1856, p. 19). The name *Oncopus* Herrich-Schäffer, 1855 later appeared in three geometrid catalogues: Prout (1934, p. 137, where it was transferred to the family GEOMETRIDAE, subfamily STERRHINAE), Fletcher (1979, p. 145) and Parsons et al. (1999, p. 663). Sihvonen & Kaila (2004, p. 333) recently assigned *Oncopus* Herrich-Schäffer, 1855 to the sterrhine tribe CYLLOPODINI (of uncertain association); it is currently also listed in the online catalogue of Pitkin & Jenkins (2005). No other references to *Oncopus* Herrich-Schäffer, 1855 in the taxonomic literature are known to us.

2. In 1876 Thorell (p. 134) described the genus *Oncopus* and the subfamily ONCOPODINAE in the opilionid family COSMETOIDAE (= COSMETIDAE) for *Oncopus doriae* Thorell, 1876 (p. 135), and in 1890 (p. 375) he raised ONCOPODINAE to family level. Kratochvíl (1958, p. 380) established the superfamily ONCOPODOIDEA for several families of laniatorean opilionids, Martens (1980, p. 356) restricted it to the family ONCOPODIDAE alone. After its introduction, the generic name *Oncopus* Thorell, 1876 was mentioned in numerous taxonomic publications: Pocock (1897,

p. 285); Loman (1902, p. 182); Roewer (1923, p. 57); Sørensen (1932, p. 210); Giribet et al. (2002) and others. A list of a further 25 papers is held by the Commission Secretariat. A revision of this genus was published by Schwendinger & Martens (2004). *Oncopus* Thorell, 1876 is currently also listed in four online catalogues: Kury (2003), Kury (2004), Brands (1989–2005) and Hallan (2005). These and many more publications also refer to the family-group names ONCOPODIDAE Thorell, 1876 and ONCOPODOIDEA Thorell, 1876. The corresponding taxa have been taxonomically revised in Schwendinger (1992), Martens & Schwendinger (1998) and Schwendinger & Martens (1999, 2002, 2004). Schwendinger (in press, a) will present a summary of the genus *Oncopus* Thorell, 1876 and the family ONCOPODIDAE Thorell, 1876 in a book on the biology of Opiliones. Descriptions of numerous new oncopodid species and genera will follow (Schwendinger, in press, b; Schwendinger & Martens, in press). Giribet is continuously adding molecular data from *Oncopus* Thorell, 1876 and other oncopodids to GenBank and to his phylogenetic matrix for a future re-evaluation of opilionid systematics. *Oncopus* Thorell, 1876 currently comprises nine valid species known from Southeast Asia. ONCOPODIDAE Thorell, 1876 and ONCOPODOIDEA Thorell, 1876 comprise 64 species from Asia.

3. The generic name *Oncopus* Herrich-Schäffer, 1855 has priority over *Oncopus* Thorell, 1876. If the provisions of the Code are applied, *Oncopus* Thorell, 1876 would have to be replaced by a substitute name in accordance with Article 60.3 of the Code (no junior synonyms are available). The corresponding family-group names ONCOPODIDAE Thorell, 1876 and ONCOPODOIDEA Thorell, 1876, correctly formed from the genitive (podos) of the Greek word (pous) in accordance with Article 29.3.1, also would have had to be substituted under Article 39 of the Code.

4. Replacing the generic name *Oncopus* Thorell, 1876 would require mandatory new combinations for nine valid binomina, for two binomina currently in synonymy and for one binomen (*Oncopus cuspidatus* Schwendinger, 1992) that is the original combination of the name of the type species of the genus *Caenoncopus* Martens & Schwendinger, 1998. It also requires replacing two family-group names, ONCOPODIDAE Thorell, 1876 and ONCOPODOIDEA Thorell, 1876, but not the corresponding two suborder names Oncopodomorphi Šilhavý, 1961 (p. 264) and Oncopodines Bristowe, 1976 (p. 178), which are not ruled by the Code and thus could remain in use. The above nomenclatural changes would cause confusion and considerable nomenclatural instability.

5. *Oncopus* Herrich-Schäffer, 1855 is not the type-genus of a family-group taxon and it contains only two species. After Herrich-Schäffer's original publication the generic name and its corresponding binomina have been mentioned in only five systematic compilations and in one online catalogue. As far as we know, the two species of moths are of no economic importance. Replacing the generic name *Oncopus* Herrich-Schäffer, 1855 by its junior synonym *Neochorista* Warren, 1897 and changing the combinations of its two species accordingly would have a minimal impact on nomenclatural stability.

6. It is proposed, under Article 23.9.3 of the Code, to suppress the little-used generic name *Oncopus* Herrich-Schäffer, 1855 in order to conserve the widely used generic name *Oncopus* Thorell, 1876 together with the corresponding family-group names.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the generic name *Oncopus* Herrich-Schäffer, 1855 and all uses of the name before Thorell (1876) for the purposes of both the Principle of Priority and the Principle of Homonymy;
- (2) to place on the Official List of Generic Names in Zoology the name *Oncopus* Thorell, 1876 (gender: masculine), type species by original designation and by monotypy *Oncopus doriae* Thorell, 1876 (Arachnida);
- (3) to place on the Official List of Specific Names in Zoology the name *doriae* Thorell, 1876, as published in the binomen *Oncopus doriae* (specific name of the type species of *Oncopus* Thorell, 1876) (Arachnida);
- (4) to place on the Official List of Family-Group Names in Zoology the name ONCOPODIDAE Thorell, 1876 (type genus *Oncopus* Thorell, 1876) (Arachnida);
- (5) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Oncopus* Herrich-Schäffer, 1855 as suppressed in (1) above (Lepidoptera).

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Dr Axel Hausmann (*Zoologische Staatssammlung München*) kindly commented on bibliographic references to *Oncopus* Herrich-Schäffer, 1855 and pointed out one paper that we had overlooked. Dr Bernard Landry (*Muséum d'histoire naturelle, Genève*) helped searching for these publications.

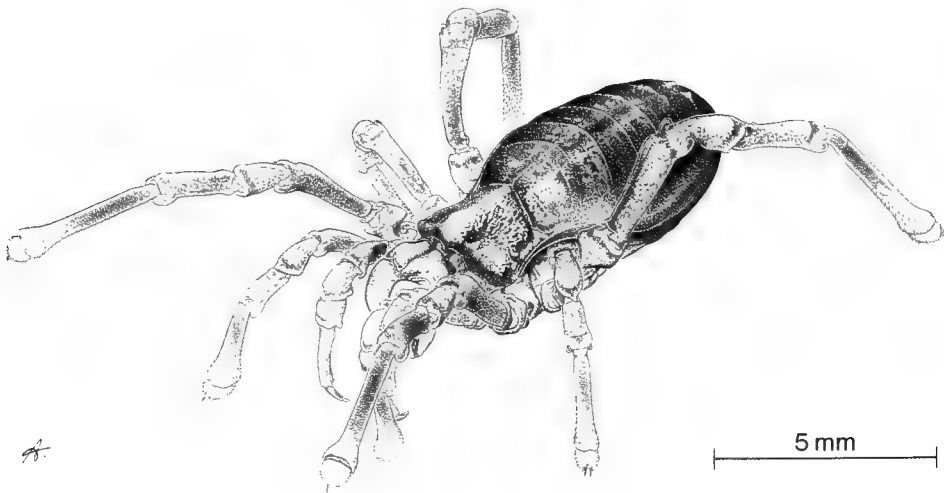


Fig. 1. *Oncopus truncatus* Thorell, 1891, female from Singapore; drawing by A. Coray (Basel).

References

- Brands, S.J. (comp.) 1989–2005. *Systema Naturae 2000*. Online at: <http://sn2000.taxonomy.nl/>, accessed in May 2006.
- Bristowe, W.S. 1976. Rare arachnids from Malaysia and Sumatra. *Journal of Zoology*, **178**: 7–14.

- Fletcher, D.S.** 1979. Geometroidea. Pp. 1–243 in Nye, I.W.B. (Ed.), *The generic names of moths of the World*, vol. 3. British Museum (Natural History), London.
- Giribet, G., Edgecombe, G.D., Weeler, W.C. & Babbitt, C.** 2002. Phylogeny and systematic position of Opiliones: a combined analysis of chelicerate relationships using morphological and molecular data. *Cladistics*, **18**: 5–70.
- Hallan, J.** 2005. *Biology catalog – synopsis of the described Opiliones of the World*. Online at: <http://insects.tamu.edu/research/collection/hallan/>, accessed in May 2006.
- Herrich-Schäffer, G.A.W.** 1855. *Systematische Bearbeitung der Schmetterlinge von Europa, zugleich als Text, Revision und Supplement zu Jakob Hübner's Sammlung Europäischer Schmetterlinge*, vol. 6. 178 pp. G.J. Manz, Regensburg.
- Herrich-Schäffer, G.A.W.** 1856. *Sammlung neuer, oder wenig bekannter, aussereuropäischer Schmetterlinge*, vol. 1. G.J. Manz, Regensburg.
- Hübner, J.** 1832. *Zuträge zur Sammlung exotischer Schmetterlinge, bestehend in Bekundigung einzelner Fliegmuster neuer oder rarer nichteuropäischer Gattungen*, vol. 4. 48 pp. Hübner, Augsburg.
- Kratochvíl, J.** 1958. Die Höhlenweberknechte Bulgariens (Cyphophthalmi und Laniatores). *Acta Academiae Scientiarum Cechoslovenicae Basis Brunensis*, **30**(9): 372–396.
- Kury, A.B.** 2003. Checklist of valid genera of Opiliones of the World. Online at: <http://acd.ufrj.br/mndi/Aracnologia/checklaniator.htm>, accessed in May 2006.
- Kury, A.B.** 2004. *Opiliones—systematics*. Online at: <http://acd.ufrj.br/mndi/Aracnologia/opiliones.html>, accessed in May 2006.
- Loman, J.C.C.** 1902. Neue aussereuropäische Opilioniden. *Zoologische Jahrbücher, Abteilung für Systematik*, **16**: 163–216.
- Martens, J.** 1980. Versuch eines phylogenetischen Systems der Opiliones. Pp. 355–360 in Gruber, J. (Ed.), *Verhandlungen, 8. Internationaler Arachnologen-Kongress*. Egermann, Wien.
- Martens, J. & Schwendinger, P.J.** 1998. A taxonomic revision of the family Oncopodidae I. New genera and new species of *Gnomulus* Thorell (Opiliones, Laniatores). *Revue suisse de Zoologie*, **105**(3): 499–555.
- Parsons, M.S., Scoble, M.J. (Ed.), Honey, M.R., Pitkin, L.M. & Pitkin, B.R.** 1999. *Geometrid moths of the World – a catalogue (Lepidoptera, Geometridae)*, vol. 2. 485–999 pp. CSIRO Publishing, Collingwood & Apollo Books, Stenstrup.
- Pitkin, B.R. & Jenkins, P.** 2005. *Butterflies and moths of the World. Generic names and their type-species*. Online at: <http://www.nhm.ac.uk/entomology/butmoth/>, accessed in May 2006.
- Pocock, R.I.** 1897. Descriptions of some new Oriental Opiliones recently received by the British Museum. *Annals and Magazine of Natural History*, (6)**19**: 283–310.
- Prout, L.B.** 1934. Geometridae: Subfamilia Sterrhinae I. Pp. 1–176 in Strand, E. (Ed.), *Lepidopterorum Catalogus*, part 61. W. Junk, Berlin.
- Roewer, C.F.** 1923. *Die Weberknechte der Erde. Systematische Bearbeitung der bisher bekannten Opiliones*. 1116 pp. Gustav Fischer, Jena.
- Schwendinger, P.J.** 1992. New Oncopodidae (Opiliones, Laniatores) from Southeast Asia. *Revue suisse de Zoologie*, **99**(1): 177–199.
- Schwendinger, P.J.** In press, a. Oncopodidae Thorell, 1876 in Pinto-da-Rocha, R. Machado, G. & Giribet, G. (Eds.), *Harvestmen: the biology of Opiliones*. Harvard University Press, Cambridge, Massachusetts.
- Schwendinger, P.J.** In press, b. A taxonomic revision of the family Oncopodidae VI. *Martensiellus*, a new genus from Borneo, and the discovery of a tarsal pore organ in Oncopodidae (Opiliones: Laniatores). *Zootaxa*.
- Schwendinger, P.J. & Martens, J.** 1999. A taxonomic revision of the family Oncopodidae II. The genus *Gnomulus* Thorell (Opiliones, Laniatores). *Revue suisse de Zoologie*, **106**(4): 945–982.
- Schwendinger, P.J. & Martens, J.** 2002. A taxonomic revision of the family Oncopodidae III. Further new species of *Gnomulus* Thorell (Opiliones, Laniatores). *Revue suisse de Zoologie*, **109**(1): 47–113.

- Schwendinger, P.J. & Martens, J.** 2004. A taxonomic revision of the family Oncopodidae IV. The genus *Oncopus* Thorell (Opiliones, Laniatores). *Revue suisse de Zoologie*, **111**(1): 139–174.
- Schwendinger, P.J. & Martens, J.** In press. A taxonomic revision of the family Oncopodidae V. *Gnomulus* from Vietnam and China, with the description of five new species (Opiliones, Laniatores). *Revue suisse de Zoologie*.
- Sihvonen, P. & Kaila, L.** 2004. Phylogeny and tribal classification of Sterrhinae with emphasis on delimiting Scopulini (Lepidoptera: Geometridae). *Systematic Entomology*, **29**: 324–358.
- Šilhavý, V.** 1961. Die Grundsätze der modernen Weberknechtntaxonomie und Revision des bisherigen Systems der Opilioniden. Pp. 262–267 in Strouhal, H. & Beier, M. (Eds.), *Verhandlungen des 11. Internationalen Kongresses für Entomologie in Wien (17.-25. August 1960)*, vol. 1. C. Reisser's Söhne, Wien.
- Sørensen, W.** 1932. Descriptiones Laniatorum (Arachnidorum Opilionum subordinis) fecit William Sørensen opus posthumum recognovit et edidit Kai L. Hendriksen. *Kongelige Danske videnskaberne selskabs skrifter, naturvidenskabelig og matematisk afdeling*, (9)**3**(4): 199–422.
- Thorell, T.** 1876. Descrizione di alcune specie di Opilioni dell'Archipelago Malese appartenenti al Museo Civico di Genova. *Annali del Museo civico di Storia Naturale di Genova*, (1)**9**: 111–138.
- Thorell, T.** 1890. Aracnidi di Pinang raccolti nel 1889 dai signori L. Loria e L. Fea. *Annali del Museo civico di Storia Naturale di Genova*, (2)**10**: 269–383.

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Comments on this case are invited for publication (subject to editing) in the Bulletin; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3335***Trachys* Fabricius, 1801 (Insecta, Coleoptera): proposed fixation of the feminine gender of the genus and the form of derivation of family-group names based on *Trachys***

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Abstract. The purpose of this application, under Articles 29.3 and 30 of the Code, is to validate the feminine gender of the genus-group name *Trachys* Fabricius, 1801 for a common and widespread leaf-mining jewel beetle and the form of derivation of family-group names based on *Trachys*.

Keywords. Nomenclature; taxonomy; Coleoptera; BUPRESTIDAE; *Trachys*; *Trachys minuta*; gender; leaf-mining jewel beetle.

1. Fabricius (1801, p. 218) introduced the generic name *Trachys* including eleven nominal species: *Trachys tessellata* Fabricius, 1801, *T. ephippium* Fabricius, 1801, *Buprestis pygmaea* Fabricius, 1787, *T. rugosa* Fabricius, 1801, *B. minuta* Linnaeus, 1758, *T. terminans* Fabricius, 1801, *T. fastigiata* Fabricius, 1801, *T. pulchella* Fabricius, 1801, *T. exigua* Fabricius, 1801, *T. pusilla* Fabricius, 1801 and *B. nana* Paykull, 1799. None was designated or indicated as the type species. Fabricius treated *Trachys* as a feminine name as evident from the endings of all the specific names included, and from his use of the feminine genitive *Trachydis*.

2. Westwood (1840, p. 25) designated *Buprestis minuta* Linnaeus, 1758 as the type species of *Trachys*.

3. There is no uniformity in interpretation of the gender of *Trachys* in the literature. Many principal works on BUPRESTIDAE since Fabricius (1801) have accepted *Trachys* as feminine. These include the works of Dejean (1821, pp. 30–31; 1833, p. 83; 1836, p. 94), Gory & Laporte (1840, pp. 1–11), Kiesenwetter (1849, p. 41; 1857, pp. 166–172), Lacordaire (1857, p. 88), Dohrn (1858, p. 51), Deyrolle (1864, pp. 237–268), Marseul (1866, pp. 504–519), Gemminger & Harold (1869, pp. 1452–1454), Saunders (1871, pp. 130–132), Stein & Weise (1877, p. 91), Heyden, et al. (1883, p. 105; 1891, p. 201; 1906, p. 420), Kerremans (1892, pp. 284–289; 1903, pp. 307–314), Théry (1905, pp. 148–166; 1925, p. 177; 1948, pp. 60–82), Jakobson (1913, p. 780), Schaefer (1936, pp. 120–123; 1956, pp. 45–48), Obenberger (1937, pp. 1352–1409), Kurosawa (1959, pp. 204–247), Descarpentries & Villiers (1965, pp. 723–735), Rikhter & Alexeev (1965, pp. 294–295), Bílý (1977, pp. 46–47), Burakovski et al. (1985, pp. 82–86), Alexeev (1989, pp. 476–477) and Bellamy (2003, pp. 95–96). Other works have treated *Trachys* as masculine including Schaum (1862,

p. 57), Stein (1868, p. 64), Bedel (1921, p. 169), Théry (1930, pp. 520–540; 1942, pp. 182–198), Schaefer (1947, pp. 166–167; 1949, pp. 460–480), Horion (1955, pp. 117–124), Harde (1979, pp. 246–248), Bílý (1982, pp. 87–91), Cobos (1986, pp. 278–289), Curletti (1994, pp. 199–207), Köhler & Klausnitzer (1998, p. 103) and Arnáiz Ruiz et al. (2002, p. 62). It is desirable to resolve the problem of the interpretation of the gender of *Trachys* because several large works dealing with the entire buprestid systematics of the Palaearctic region or the world fauna (FaEu project, Catalogue of the Palaearctic Beetles, World Catalogue of Buprestidae) are nearing completion.

4. Kraatz (1859, p. 59 in Schaum, 1859; Kraatz, 1870, p. 31) was the first to suggest that *Trachys* is masculine, but reversed his opinion after the published discussion between him and von Harold (1869, p. 117; 1870, p. 116). It is evident that many recent authors (e.g. Théry, Schaefer, Horion) followed Bedel (1921, p. 166) who commented and reopened the *Trachys* gender case.

5. Article 30.1.4.2 (Gender of genus-group names) may allow for the solution to this problem: ‘A genus-group name that either is, or ends in, a word of common or variable gender (masculine or feminine) is to be treated as masculine unless its author, when establishing the name, stated that it is feminine or treated it as feminine in combination with an adjectival species-group name [Art. 31.2]’. However, a question remains here as it seems clear that there is no indication that *Trachys*, or its stem, is of common or variable gender.

6. We realize that strictly speaking the name ‘*Trachys*’ should be treated as masculine (feminine form would be *Tracheia*). But Fabricius created his names in a rather free, non-standard and sometimes grammatically incorrect way (see also Harold, 1870). For this reason we should accept ‘*Trachys*’ as a non-standard name, which according to Prof. A. Bartoněk, a linguist and specialist in ancient Greek, can be treated as feminine to maintain the author’s intention.

7. The first author who established a family-group name derived from *Trachys* was Laporte (1835, p. 166); he used the form ‘Trachisites. Trachisidae’. Because we propose confirmation of the feminine gender for *Trachys*, we also propose, following Article 29.3.3 and Recommendation 29A of the Code, to form the family-group names TRACHYSIDAE, TRACHYSINAE and TRACHYSINI by adding the suffix –dae to the whole name *Trachys* in accordance with Laporte (1835, p. 166).

8. It is proposed that the names TRACHEIDAE Gistel, 1848 (p. 3); TRACHINAE Obenberger, 1926 (p. 651); TRACHYINAE Gavoy, 1897 (p.133); TRACHYDINI Reitter, 1911 (p. 180); TRACHYNI Kerremans, 1893 (p. 121) and TRACHYNINI Kraatz, 1869 (p. 36) are considered invalid as incorrectly derived from *Trachys*.

9. The International Commission on Zoological Nomenclature is accordingly asked:

(1) to rule that:

- (a) the gender of the genus-group name *Trachys* Fabricius, 1801 is feminine;
- (b) the family-group names derived from the genus-group name *Trachys* should be formed by adding the appropriate ending to the name of the genus in the nominative case (e.g. TRACHYSIDAE, TRACHYSINAE, TRACHYSINI);

(2) to place on the Official List of Generic Names in Zoology the name *Trachys* Fabricius, 1801 (gender: feminine), type species *minuta* Linnaeus, 1758, by subsequent designation by Westwood, 1840, as published in the binomen *Buprestis minuta*;

- (3) to place on the Official List of Specific Names in Zoology the name *minuta* Linnaeus, 1758, as published in the binomen *Buprestis minuta* Linnaeus, 1758 (specific name of the type species of *Trachys* Fabricius, 1801);
- (4) to place on the Official List of Family-Group Names in Zoology the name TRACHYSIDAE Laporte, 1835 (type genus *Trachys* Fabricius, 1801).
- (5) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the following names, as incorrectly derived from *Trachys* Fabricius (1801):
 - (a) TRACHEIDAE Gistel, 1848;
 - (b) TRACHINAE Obenberger, 1926;
 - (c) TRACHYINAE Gavoy, 1897;
 - (d) TRACHYDINI Reitter, 1911;
 - (e) TRACHYNI Kerremans, 1893;
 - (f) TRACHYNINI Kraatz, 1869.

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References

- Alexeev, A.V. 1989. Buprestidae – Zlatki. Pp. 463–489 in Ler, P.A. (Ed.), *Opređitel' nasekomykh Dal'nego Vostoka SSSR, Tom 3, Zhestkokrylye, ili zhuki, Chast' 1*. 572 pp. Nauka, Leningrad.
- Arnáiz Ruiz, L., Bercedo Páramo, P. & Sousa Zuzarte, A.J. de. 2002. Corología de los Buprestidae de la Península Ibérica e Islas Baleares (Coleoptera). *Boletín de la Sociedad Entomológica Aragonesa*, **30**: 37–80.
- Bedel, L. 1921. *Faune des coléoptères du bassin de la Seine. Tome IV. Deuxième Fascicule – Serricornia*. Pp. 165–234. Firmin-Didot, Paris.
- Bellamy, C.L. 2003. An illustrated summary of the higher classification of the superfamily Buprestoidea (Coleoptera). *Folia Heyrovskyana*, Suppl. **10**: 1–197.
- Bílý, S. 1977. *Klíč k určování československých krasců. Buprestidae, Coleoptera*. 51 pp. Academia, Praha.
- Bílý, S. 1982. The Buprestidae of Fennoscandia and Denmark. *Fauna Entomologica Scandinavica*, **10**: 1–110.
- Burakowski, B., Mroczkowski, M. & Stefańska, J. 1985. *Chrzęszcze. Coleoptera. Buprestoidea, Elateroidea i Cantharoidea. Katalog fauny polski. Catalogus faunae Poloniae*, part 23, vol. 10. 401 pp. Państwowe wydawnictwo naukowe, Warszawa.
- Cobos, A. 1986. *Fauna Iberica de Coleopteros Buprestidae*. 364 pp. Imp. Aguirre, Madrid.
- Curletti, G. 1994. I Buprestidi d'Italia. Catalogo tassonomico, sinonimico, biologico, geonomico. *Natura Bresciana* (Brescia), *Monografie*, **19**: 1–318.
- Dejean, P.F.M.A. 1821. *Catalogue de la collection de Coléoptères de M. le Baron Dejean*. Crevot, 8, 136, [2] pp. Paris.
- Dejean, P.F.M.A. 1833. *Catalogue des Coléoptères de la collection de M. le Comte Dejean*, section 1–12. Pp. 1–96. Méquignon-Marvis, Paris.
- Dejean, P.F.M.A. 1836. *Catalogue des Coléoptères de la collection de M. le Comte Dejean. Troisième édition, revue, corrigée, et augmentée*. 1–384 pp. Méquignon-Marvis, Paris.
- Descarpentries, A. & Villiers, A. 1965. Catalogue raisonné des Buprestidae d'Indochine. VII, Trachydini (2e partie). Genre *Trachys*. *Annales de la Société Entomologique de France (N. S.)*, **1**: 723–735.
- Deyrolle, H. 1864. Description des Buprestides de la Malaisie recueillis par M. Wallace. *Annales de la Société Entomologique de Belgique*, **8**: 1–312.

- Dohrn, C.A.** 1858. *Catalogus Coleopterorum Europae*. Siebente Auflage. [3], 104, 15 pp. R. Grassmann, Stettin.
- Fabricius, J.C.** 1801. *Systema Eleutheratorum secundum ordines, genera, species: adiectis synonymis, locis, observationibus, descriptionibus. Tomus II*. 687 pp. Bibliopoli academici novi, Kiliae.
- Gavoy, L.** 1897. Catalogue des Insectes coléoptères trouvés jusqu'à ce jour dans le département de l'Aude. *Bulletin de la Société Étude Scientifique Aude*, **8**: 163–212.
- Gemminger, M. & Harold, E. von.** 1869. *Catalogus coleopterorum hucusque descriptorum synonymicus et systematicus. Tom. V. Buprestidae, Trixagidae, Monommidae, Eucnemidae, Elateridae, Cebionidae*. Pp. 1347–1608. Sumptu E.H. Gummi, Monachii.
- Gistel, J.** 1848. Faunula monacensis cantharologica. *Isis*, **7**: 3.
- Gory, H.L. & Laporte de Castelnau, F.L.** 1840. Genre *Brachys*. Pp. 4–9, *Trachys*, 11 pp. (genera paged separately) in *Histoire naturelle et iconographie des insectes Coléoptères, publiée par monographies séparées. Monographie de la tribu des Buprestides*, vol. 2, livraisons 36–42. P. Duméril, Paris.
- Harde, K.W.** 1979. 38. Familie: Buprestidae (Prachtkäfer). Pp. 204–248 (excl. gen. *Agrilus*, pp. 230–243) in Freude, H., Harde, K.W. & Lohse, G.A. (Eds.), *Die Käfer Mitteleuropas. Band 6, Diversicornia*. Goecke & Evers Verlag, Krefeld.
- Harold, E. von.** 1869. Berichtigungen und Zusätze zum *Catalogus Coleopterorum synonymicus et systematicus. Coleopterologische Hefte*, **5**: 112–119, 122–125.
- Harold, E. von.** 1870. Ueber den Gattungsnamen *Trachys. Coleopterologische Hefte*, **6**: 116.
- Heyden, L.F.J.D. von, Reitter, E. & Weise, J.** 1883. *Catalogus Coleopterorum Europae et Caucasi. Editio tertia*. (Buprestidae by E. Reitter). [3], 228 pp. Libraria Nicolai, Berlin.
- Heyden, L.F.J.D. von, Reitter, E. & Weise, J.** 1891. *Catalogus Coleopterorum Europae, Caucasi et Armeniae rossicae*. (Buprestidae by E. Reitter). 8, 420 pp. R. Friedländer & Sohn, Berlin; E. Reitter, Mödling; *Revue d'Entomologie*, Caen.
- Heyden, L.F.J.D. von, Reitter, E. & Weise, J.** 1906. *Catalogus Coleopterorum Europae, Caucasi et Armeniae rossicae. Editio secunda*. (Buprestidae by E. Reitter). [8], 775 pp. R. Friedländer & Sohn, Berlin; E. Reitter, Paskau; *Revue d'Entomologie*, Caen.
- Horion, A.** 1955. Faunistik der mitteleuropäischen Käfer. Sternoxia (Buprestidae), Fossipedes, Macroductylia, Brachymera. *Entomologische Arbeiten aus dem Museum G. Frey*, **4**: 1–21, 1–280.
- Jakobson, G.G.** 1913. *Zhuki Rossii i zapadnoi Evropy. Rukovodstvo k' opredeleniyu zhukov*, vol. 10. [2], 721–864 pp., pls. 76–83. A.F. Devrien, S. Petersburg.
- Kerremans, C.** 1892. Catalogue synonymique des Buprestides décrits de 1758 à 1890. *Mémoires de la Société Entomologique de Belgique*, **1**: 1–304.
- Kerremans, C.** 1893. Essai de groupement des Buprestides. *Annales de la Société Entomologique de Belgique*, **37**: 94–122.
- Kerremans, C.** 1903. Coleoptera Serricornia, Fam. Buprestidae. Pp. 49–338 in Wytzman, P. (Ed.), *Genera Insectorum*, fasc. 12b; 12c; 12d. Verteneuil & Desmet, Bruxelles.
- Kiesenwetter, H. von.** 1849. *Catalogus Coleopterorum Europae. 3. Auflage*. 82 pp. Stettiner Ent. Ver., Bautzen.
- Kiesenwetter, H. von.** 1857. Buprestidae, Eucnemidae. Pp. 1–176 (Bogen 1–11) in Kiesenwetter, H. von. 1857–1863: *Vierter Band, Buprestidae-Lymexylidae, Nachträge, Zusätze und Berichtigungen*, 6, 746 pp. in Erichson, W.F., Schaum, H., Kraatz, G. & Kiesenwetter, H. von. *Naturgeschichte der Insecten Deutschlands. Erste Abtheilung. Coleoptera*. Nicolai'sche Verlagsbuchhandlung, Berlin.
- Köhler, F. & Klausnitzer, B.** 1998. Verzeichnis der Käfer Deutschlands. *Entomologische Nachrichten und Berichte* (Dresden), Beiheft **4**: 1–185.
- Kraatz, G.** 1869. *Verzeichnis der Käfer Deutschlands*. 7, 84 pp. Nicolai'sche Verlagsbuchhandlung, Berlin.
- Kraatz, G.** 1870. Ueber den Gattungsnamen *Trachys. Coleopterologische Hefte*, **6**: 31–32.
- Kurosawa, Y.** 1959. A revision of the leaf-mining buprestid-beetles from Japan and the Loo-Choo Islands. *Bulletin of the National Science Museum (Tokyo)*, **4** (2): 202–268.
- Lacordaire, J.T.** 1857. *Histoire naturelle des insectes. Genera des Coléoptères ou exposé méthodique de critique de tous les genres proposés jusqu'ici dans cet ordre d'insectes*,

- Tome quatrième contenant les familles des buprestides, throscides, eucnémides, élatérides, cébrionides, cérophytides, rhipicérides, dascyllides, malacodermes, clérides, lyméxylones, cupésides, ptiniores, bostrichides et cissides.* 554 pp. Librairie encyclopédique de Roret, Paris.
- Laporte, F.L. de Castelnau.** 1835. Études entomologiques, ou descriptions d'insectes nouveaux et observations sur la synonymie. *Revue Entomologique* (Strasbourg & Paris), **3**: 157-181.
- Marseul, S.-A. de.** 1866. Monographie des buprestides famille des sternoxes de Latreille. *L'Abeille, Mémoires d'Entomologie*, **2**: 289-540.
- Obenberger, J.** 1926. Buprestidae. Pp. 625-663 in Winkler, A. (Ed.), *Catalogus Coleopterorum regionis palaearcticae. Pars 6.* A. Winkler, Wien.
- Obenberger, J.** 1937. Buprestidae VI, pars 157. Pp. 1247-1714 in Junk, W. & Schenkling, S. (Eds.), 1936-1937: *Coleopterorum Catalogus*, vol. 13. W. Junk, Verlag für Naturwissenschaften, Gravenhage.
- Reitter, E.** 1911. *Fauna Germanica. Die Käfer des Deutschen Reiches. Nach der analytische Methode bearbeitet*, vol. 3. 436 pp., 48 pls. K.G. Lutz Verlag, Stuttgart.
- Rikhter, A.A. & Alexeev, A.V.** 1965. 48. Sem. Buprestidae-Zlatki. Pp. 283-303 in Bei-Bienko, G.Y. (Ed.), *Opredelitel' nasekomykh Evropeiskoi chasti SSSR. Zhestkokrylye i veerokrylye*, vol. 2. 668 pp. Nauka, Moskva-Leningrad.
- Saunders, E.** 1871. *Catalogus Buprestidarum Synonymicus et Systematicus*. 171 pp. J. Janson, London.
- Schaefer, L.** 1936. Troisième note sur les Buprestides. *Miscellanea Entomologica*, **37**: 117-123.
- Schaefer, L.** 1947. Notes sur la systématique et la morphologie des larves de Buprestides (Suite et fin). *Bulletin Mensuel de la Société Linnéenne de Lyon*, **16**: 162-167.
- Schaefer, L.** 1949. Les Buprestides de France. Les Buprestides de France. Tableaux analytiques des Coléoptères de la faune franco-rhénane. France, Rhénane, Belgique, Hollande, Valais, Corse. Famille LVI. *Miscellanea Entomologica, Supplement*. 511 pp., 28 pls.
- Schaefer, L.** 1956. Un nouveau *Trachys* français (Col Buprestidae). *Annales de la Société d'Horticulture et d'Histoire Naturelle de l'Hérault*, **96**: 45-48.
- Schaum, H.R.** 1859. *Catalogus Coleopterorum Europae*. 4, 121 pp. Nicolai'sche Verlagsbuchhandlung, Berlin.
- Schaum, H.R.** 1862. *Catalogus Coleopterorum Europae. Editio secunda aucta et emendata*. 138 pp. Nicolai'sche Verlagsbuchhandlung, Berlin.
- Stein, J.P.E.F.** 1868. *Catalogus Coleopterorum Europae*. iv, 149 pp. Friderici Nicolai, Berolini.
- Stein, J.P.E.F. & Weise, J.** 1877. *Catalogi Coleopterorum Europae. Editio Secunda*. 209 pp. Libraria Nicolai, Berolini.
- Théry, A.** 1905. *Revision des Buprestides de Madagascar*. 186 pp. E. Deyrolle, Paris.
- Théry, A.** 1925. Coléoptères Buprestides récoltés par M. de Morgan en Perse, pendant l'année 1904. *Bulletin du Muséum National d'Histoire Naturelle*, **1925**: 171-177.
- Théry, A.** 1930. Études sur les Buprestides de l'Afrique du nord. *Mémoires de la Société des Sciences Naturelles du Maroc*, **19** (1928): 1-586.
- Théry, A.** 1942. *Coléoptères Buprestides. Faune de France*, **41**. 223 pp. P. Lechevalier, Paris.
- Théry, A.** 1948. *Exploration du Parc National Albert, Mission G.F. de Witte (1933-1935)*. Fascicule 54. *Buprestidae (Coleoptera Sternoxia)*. 85 pp. Institut des Parcs Nationaux du Congo Belge, Bruxelles.
- Westwood, J.O.** 1840. Synopsis of the genera of British insects, 158 pp. (paged separately), in Westwood, J.O., *An introduction to the modern classification of insects; founded on the natural habits and corresponding organisation of the different families*, vol. 2. 11, 587 pp. Longman, Orme, Brown, Green, and Longmans, London.

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Comments on this case are invited for publication (subject to editing) in the Bulletin; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3349***Gnorimus* Le Peletier de Saint-Fargeau & Serville, 1828 and
Osmoderma Le Peletier de Saint-Fargeau & Serville, 1828 (Insecta,
Coleoptera): proposed conservation of the generic names**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the names *Gnorimus* Le Peletier de Saint-Fargeau & Serville, 1828, and *Osmoderma* Le Peletier de Saint-Fargeau & Serville, 1828, for dead-wood and pollen-feeding scarab beetles (SCARABAEIDAE) from the Palaearctic and North America. The names are threatened by two senior synonyms, the long forgotten but recently used names *Aleurostictus* Kirby, 1827 and *Gymnodus* Kirby, 1827, respectively. The suppression of the two senior synonyms is proposed.

Keywords. Nomenclature; taxonomy; Coleoptera; SCARABAEIDAE; *Gnorimus*; *Osmoderma*; *Aleurostictus*; *Gymnodus*; Acari; ASCIDAE; scarab beetles; mites; Palaearctic; North America.

1. Kirby (1827) introduced seven genus-group names as subgenera of *Trichius* Fabricius, 1775 (SCARABAEIDAE, TRICHIINAE): *Aleurostictus*, *Archimedi*, *Euclidi*, *Gymnodus*, *Legitimus*, *Tetrophthalmus* and *Trichinus*. He introduced these names as masculine nouns in the plural form (*Aleurosticti*, *Gymnodi*, etc.) but the most influential authors of the time either overlooked Kirby's names (Gory & Percheron, 1833) or treated them as synonyms (Burmeister & Schaum, 1840; Lacordaire, 1856, p. 557). Thus, these names either gained only limited acceptance during a short period after their introduction, or instantly fell into disuse (Smith, 2004). Case 3314 (BZN 62: 75–78) applied for the suppression of two of them, *Tetrophthalmus* Kirby

and *Trichinus* Kirby, in favour of long established names. Recently another two of Kirby's names, *Aleurostictus* Kirby, 1827 (p. 157) and *Gymnodus* Kirby, 1827 (p. 157), reappeared in the literature as valid names for the well-known Holarctic genera *Gnorimus* and *Osmoderma* respectively (see paras. 3 and 4 below).

2. These two names, *Gnorimus* and *Osmoderma*, were published the year after Kirby's paper by Le Peletier de Saint-Fargeau & Serville (1828, p. 702) as subgenera ('subdivisions') of *Trichius* Fabricius. The authors did not refer to Kirby's paper and did not designate type species.

3. MacLeay (1838, p. 16) designated *Scarabaeus eremita* Scopoli, 1763 (p. 7) (which he referred to as *Trichius eremita* Fabricius, 1792) as the type species of *Osmoderma* Le Peletier de Saint-Fargeau & Serville, 1828, making it a junior objective synonym of *Gymnodus* Kirby, 1827, because the latter has the same type species by monotypy. However, MacLeay treated *Osmoderma* as a valid name and *Gymnodus* as an invalid synonym. This was followed by all subsequent authors for over 150 years – 35 references of articles and books published between 1958 and 2003 are listed by Smith (2004, p. 287) and more than 150 references from the last 130 years by Ranius et al. (2005, pp. 22–30). Recently, however, *Gymnodus* has been treated as a valid name by Ádám (1994; 2003, p. 129) and Gusakov (2002). Smith (2004) intended to reverse the precedence of *Gymnodus* and placed it as a junior synonym of *Osmoderma*. However, the conditions for prevailing usage (Article 23.9.2 of the Code) were arguably not met because Ádám (1994, p. 10) used it as a valid name. Smith (2004) considered Ádám's paper a 'list of names' that 'must not be taken into account in determining usage under Article 23.9.1.1' (Article 23.9.6.). However, the other three authors of this Case believe that Ádám's list is not covered by Article 23.9.6 because it is not a 'list of names' but a list of taxa (i.e. containing information about the species beyond their names, namely their occurrence in Hungary), thus being valid for determining usage. Actually, it has already been followed by several authors (see above and para. 4 below).

4. MacLeay (1838, p. 15) synonymized *Gnorimus* Le Peletier de Saint-Fargeau & Serville with *Aleurostictus* Kirby while keeping the latter ('*Aleurosticti*') as a valid name. However, at that time *Gnorimus* had already been in common use (Stephens, 1830, p. 231; Gory & Percheron, 1833, p. 100; Curtis, 1837, p. 21). Blanchard (1845, p. 233) designated *Scarabaeus nobilis* Linnaeus, 1758 (p. 353) (currently *Gnormius nobilis*) as the type species of *Gnorimus*. By designating *Scarabaeus nobilis* Linnaeus, 1758 the type species of *Aleurostictus*, Smith (2004, p. 286) made *Aleurostictus* an objective synonym of *Gnorimus*. After Stephens (1839, p. 170), who was the last to use *Aleurostictus* as valid before 1994, *Gnorimus* has been considered a valid name by all authors. However, in 1994, Ádám used *Aleurostictus* in his Hungarian checklist of Scarabaeoidea, which was then followed by Tauzin (2000, 2004a, b), Fujioka (2001, p. 126), Gusakov (2002), Uguarte San Vicente & Uguarte Arrue (2002), Ádám (2003, p. 129) and Whitehead (2003). However, Tauzin (2004a, b) obviously was not fully sure about his intentional use of the virtually unused name *Aleurostictus*, because he mentioned having sent an application to 'Entomological Records' to decide whether his usage is permissible and acceptable (Tauzin, 2004a, p. 33; 2004b, p. 78). *Gnorimus* is still the predominant name (Tremblay, 2000, p. 87; Cooter, 2001; Gebicki, 2001; Lo Cascio, 2001, p. 185f; Brechtel & Kostenbader, 2002, p. 565; Frank & Konzelmann, 2002, p. 131; Micó & Galante, 2002, p. 59f; Nilsson et al., 2002, p. 84; Ranius &

Jansson, 2002, p. 1763; Ruta, 2002; Telnov, 2002; Ballerio, 2003, pp. 68, 79; Jansson & Antonsson, 2003, p. 43; Recalde & San Martín, 2003, p. 66; Schaffrath, 2003, p. 174; Smith, 2003, p. 47; Pino & Pino, 2003; Vignon & Orabi, 2003; Voolma & Randveer, 2003, p. 51; Pesarini, 2004, p. 96; Renault et al., 2004) and it is used in the recently published data bank of the Fauna Europaea Project (Krell, 2004). Dechambre (2001) listed 34 additional references covering the years 1952–2000 to meet Article 23.9.1.2 and declared *Aleurostictus* a nomen nudum. However, Ádám's (1994, p. 10) use of *Aleurostictus* as a valid name prevents the application of Article 23.9.2.

5. Both *Gnorimus* and *Osmoderma* are in wide use for well-known species of importance in conservation. *Osmoderma eremita* (Scopoli, 1763) is a priority species of the habitat directive of the European Union (92/43/EEC), is listed in the Bern Convention (Luce 1996) and classified as vulnerable on the IUCN Red List of Threatened Species (www.redlist.org). Two widespread European *Gnorimus* species, *G. nobilis* (Linnaeus, 1758) and *G. variabilis* (Linnaeus, 1758), are on the Priority Species List of the UK Biodiversity Action Plan (www.english-nature.org.uk/baps/pdf/Priority.pdf) and on the Red Lists of most European countries; the third known European species, *G. decempunctatus* Helfer, 1834 (endemic to Sicily), will be established as a focal species in the Italian Red List, with Sicilian endemic *Osmoderma cristinae* Sparacio, 1994 (Audisio et al., 2003; Brustel, 2004). We agree with Tauzin's (2002, p. 147) conclusion that there is no need or advantage in replacing those names by long-forgotten senior synonyms. A change of the generic names *Gnorimus* and *Osmoderma* would not only cause confusion amongst the large community of conservationists and ecologists dealing with these species, but also threatens the legal protection of the species since *Gymnodus* and *Aleurostictus* are not included in legal documents.

6. Chaudhri (1975, p. 100), described the mite genus *Gnorimus* (Acari: Mesostigmata: ASCIDAE) (type species by monotypy: *Gnorimus tabella* Chaudhri, 1975). This genus has been rarely mentioned in literature (Gupta & Ray, 1981, p. 267; Wu & Wang, 1982; Zhang & Lin, 1986, p. 84; Moraes et al., 1986, p. 153; Zhang & Lin, 1989, 1991). In 1994, Chant & McMurtry (p. 225) synonymised *Gnorimus* Chaudri with *Lasioseius* Berlese which was agreed by Walter & Lindquist (1997, p. 526) who pointed out that Chaudhri's name was preoccupied by *Gnorimus* Le Peletier de Saint-Fargeau & Serville. In recent years, *Gnorimus* Chaudri has occasionally been used as a valid name (Parvez et al., 2000; Moraes et al., 2004, p. 5), but is not threatening *Gnorimus* Le Peletier de Saint-Fargeau & Serville, and we are confident that its status as synonym and junior homonym will be accepted soon. Because of its synonymy with *Lasioseius*, a replacement name for *Gnorimus* Chaudri is currently unnecessary.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the following generic names for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *Aleurostictus* Kirby, 1827;
 - (b) *Gymnodus* Kirby, 1827;
- (2) to place on the Official List of Generic Names in Zoology the following names:

- (a) *Gnorimus* Le Peletier de Saint-Fargeau & Serville, 1828 (gender: masculine), type species by subsequent designation by Blanchard (1845) *Scarabaeus nobilis* Linnaeus, 1758;
- (b) *Osmoderma* Le Peletier de Saint-Fargeau & Serville, 1828 (gender: neuter), type species by subsequent designation by MacLeay (1838) *Scarabaeus eremita* Scopoli, 1763;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *eremita* Scopoli, 1763, as published in the binomen *Scarabaeus eremita* (the type species of *Osmoderma* Le Peletier de Saint-Fargeau & Serville, 1828);
 - (b) *nobilis* Linnaeus, 1758, as published in the binomen *Scarabaeus nobilis* (the type species of *Gnorimus* Le Peletier de Saint-Fargeau & Serville, 1828);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
 - (a) *Aleurostictus* Kirby, 1827, as suppressed in (1)(a) above;
 - (b) *Gymnodus* Kirby, 1827, as suppressed in (1)(b) above;
 - (c) *Gnorimus* Chaudhri, 1975 (a junior homonym of *Gnorimus* Le Peletier de Saint-Fargeau & Serville, 1828).

References

- Ádám, L. 1994. A check-list of the Hungarian Scarabaeoidea with the description of ten new taxa (Coleoptera). *Folia Entomologica Hungarica*, **55**: 5–17.
- Ádám, L. 2003. Faunisztikai adatok a Kárpát-medencéből (Coleoptera: Scarabaeoidea). *Folia Historico Naturalia Musei Matraensis*, **27**: 101–136.
- Audisio, P., Ballerio, A., Carpaneto, G.C., Antonini, G., Mancini, E., Coletti, G., Piattella, E. & De Biase, A. 2003. *Osmoderma eremita* s.l. in Europa meridionale: stato delle conoscenze e problemi di conservazione (Coleoptera, Cetoniidae). Pp. 57–60 in Mason, F., Nardi, G. & Tisato, M. (Eds.), *Proceedings of the International Symposium 'Dead wood: a key to biodiversity'*, Mantova, May 29–31, 2003. 100 pp. Sherwood.
- Ballerio, A. 2003. EntomoLex: la conservazione degli insetti e la legge. *Memorie della Società Entomologica Italiana*, **82**: 17–86.
- Blanchard, É. 1845. *Histoire des Insectes. Hyménoptères et Coléoptères*. 398 pp., 10 pls. Firmin Didot Frères, Paris.
- Brechtel, F. & Kostenbader, H. (Eds.). 2002. *Die Pracht- und Hirschkäfer Baden Württembergs*. 632 pp. Ulmer, Stuttgart.
- Brustel, H. 2004. Contribution à la connaissance d'*Osmoderma* spp. dans le sud de l'Europe (Coleoptera, Cetoniidae). *Le Coléoptériste*, **7**: 203–205.
- Burmeister, H. & Schaum, H. 1840. Kritische Revision der *Lamellicornia melitophila*. *Zeitschrift für die Entomologie*, **2**: 353–420.
- Chant, D.A. & McMurtry, J.A. 1994. A review of the subfamilies Phytoseiinae and Typhlodrominae (Acari: Phytoseiidae). *International Journal of Acarology*, **20**: 223–310.
- Chaudhri, W.M. 1975. New subfamily Gnoriminae (Acarina: Phytoseiidae) with a new genus *Gnorimus* and description of a new species *Gnorimus tabella* from Pakistan. *Pakistan Journal of Agricultural Sciences*, **12**: 99–102.
- Cooter, J. 2001. *Gnorimus nobilis* (L.) (Col., Scarabaeidae) in Herefordshire. *Entomologist's Monthly Magazine*, **137**: 66.
- Curtis, J. 1837. *A guide to an arrangement of British insects; being a catalogue of all the named species hitherto discovered in Great Britain and Ireland. Second edition*. 6, 294 pp. Pigot, Sherwood & Simpkin, London.
- Dechambre, R.-P. 2001. Du bon usage du principe de priorité ou pourquoi *Gnorimus* doit rester *Gnorimus* (Coleoptera, Cetoniidae, Trichiinae). *Entomologiste*, **57**: 229–232.
- Fabricius, J.C. 1775. *Systema Entomologiae*. 832 pp. Flensburgi & Lipsiae.

- Frank, J. & Konzelmann, E.** 2002. Die Käfer Baden-Württembergs 1950–2000. *Naturschutz-Praxis, Artenschutz*, **6**: 1–290.
- Fujioka, M.** 2001. A list of Japanese lamellicornia. *Kogane, Supplement*, **1**: 1–4, 1–294.
- Gebicki, C.** 2001. Nowe stanowisko *Gnorimus variabilis* (L.) w polnocnej Polsce (Coleoptera: Scarabaeidae). *Acta Entomologica Silesiana*, **7–8**: 70.
- Gory, H. & Percheron, A.** 1833. *Monographie des cétoines et genres voisins, formant, dans les familles naturelles de Latreille, la division des scarabées mélitophiles*. 410 pp., 77 pls. Baillière, Paris and London.
- Gupta, S.K. & Ray, S.** 1981. A new genus and one new species under subfamily Gnoriminae Chaudhri from India (Acarina: Phytoseiidae). *Bulletin of the Zoological Survey of India*, **4**: 267–269.
- Gusakov, A.A.** 2002. *Plastinchatousye zhuki podsemeistva Trichiinae (Coleoptera, Scarabaeidae) v faune Rossii. Vidy roda Gymnodus Kirby*. 55 pp. Eidos, Kaluga.
- Jansson, N. & Antonsson, K.** 2003. The work with old trees and saproxylic beetles in Östergötland Sweden. Pp. 41–43 in Bowen, C.P. (Ed.), *Proceedings of the second pan-European conference on Saproxylic Beetles*. People's Trust for Endangered Species, London.
- Kirby, W.** 1827. A Description of some new Genera and Species of Petalocerous Coleoptera. *Zoological Journal*, **3**: 145–158.
- Krell, F.-T.** 2004. Fauna Europaea: Family Cetoniidae, Family Dynastidae, Family Euchiridae, Family Glaphyridae. *Fauna Europaea version 1.1*. <http://www.faunaeur.org>, accessed in April, 2006.
- Lacordaire, T.** 1856. *Histoire naturelle des insectes. Genera des Coléoptères ou exposé méthodique et critique de tous les genres proposés jusqu'ici dans cet ordre d'insectes*. 594 pp. Roret, Paris.
- Le Peletier de Saint-Fargeau, [A.L.M.] & [Audinet-Serville, [J.G.]** 1828. Trichie. Pp. 701–718 in Latreille, [...]: *Encyclopédie Méthodique. Histoire Naturelle. Entomologie, ou histoire naturelle des crustacés, des arachnides et des insectes*. **10**. Agasse, Paris.
- Linnaeus, C.** 1758. *Systema Naturae*. Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.
- Lo Cascio, P.** 2001. Trogidae, Geotrupidae, Aphodiidae, Melolonthidae, Dynastidae, Cetoniidae. Pp. 173–189 in Sforzi, A. & Bartolozzi, L. (Eds.), *Libro rosso degli insetti della Toscana*. 375 pp. Arsia, Firenze.
- Luce, J.-M.** 1996. *Osmoderma eremita* (Scopoli, 1763). Pp. 64–69 in Helsdingen, P.J. van, Willemsse, L. & Speight, M.C.D. (Eds.), *Background information on invertebrates of the Habitats Directive and the Bern Convention. Part I—Crustacea, Coleoptera and Lepidoptera (Nature and Environment No. 79)*. Council of Europe Publishing.
- MacLeay, W.S.** 1838. [Illustrations of the Annulosa of South Africa, collected during an expedition into the interior, under Andrew Smith]. Pp. 1–54, 1 pl. in Smith, A. *Illustrations of the zoology of South Africa [...] Invertebratae*. Smith, Elder and Co., London.
- Micó, E. & Galante, E.** 2002. *Atlas fotogràfic de los escarabeidos florícolas ibero-baleares*. 81 pp. Argania Editio, Barcelona.
- Moraes, G.J. de, McMurtry, J.A. & Denmark, H.A.** 1986. *A catalogue of the mite family Phytoseiidae. References to Taxonomy, Synonymy, distribution and Habitat*. **7**, 353 pp. Embrapa, Brasília.
- Moraes, G.J. de, McMurtry, J.A., Denmark, H.A. & Campos, C.B.** 2004. A revised catalog of the mite family Phytoseiidae. *Zootaxa*, **434**: 1–494.
- Nilsson, S.-G., Baranowski, R., Hedin, J., Jansson, N. & Ranius, T.** 2002. Håltrådslevande guldbaggars (Coleoptera, Scarabaeidae) biologi och utbredning i Sverige. *Entomologisk Tidskrift*, **123**: 81–98.
- Parvez, A., Iqbal, M. & Akbar, S.** 2000. Descriptions of three new species of the genus *Gnorimus* Chaudhri (Acarina: Phytoseiidae) from Pakistan. *Pakistan Journal of Zoology*, **32**: 355–360.
- Pesarini, C.** 2004. Insetti della Fauna Italiana. Coleotteri Lamellicorni. *Natura, Rivista di Scienze Naturali*, **93**(2): 1–131.

- Pino, J.J. & Pino, R.** 2003. Cita de *Gnorimus variabilis* (Linnaeus, 1758) en Galicia (NW Spain) (Coleoptera, Cetoniidae, Trichiinae). *Boletín de la Sociedad Entomológica Aragonesa*, **32**: 248.
- Ranius, T., Aguado, L.A., Antonsson, K. et al.** 2005. *Osmoderma eremita* (Coleoptera, Scarabaeidae, Cetoniinae) in Europe. *Animal Biodiversity and Conservation*, **28**: 1–44.
- Ranius, T. & Jansson, N.** 2002. A comparison of three methods to survey saproxylic beetles in hollow oaks. *Biodiversity and Conservation*, **11**: 1759–1771.
- Recalde, J.I. & San Martín, A.F.** 2003. Saproxylics of Navarra (North Spain): chronology, faunistic and status of noticeable, protected and endangered beetles. Pp. 66–67 in Bowen, C.P. (Ed.), *Proceedings of the second pan-European conference on Saproxylic Beetles*. People's Trust for Endangered Species, London.
- Renault, D., Vernon, P. & Vannier, G.** 2004. Comparing the freezing susceptibility of third-instar larvae of *Gnorimus variabilis* (Cetoniidae: Trichiinae) from three distant geographical regions. *Canadian Journal of Zoology*, **82**: 873–879.
- Ruta, R.** 2002. Nowe stanowiska *Gnorimus variabilis* (Linnaeus, 1758) i *Bruchus brachialis* Fahraeus, 1839 (Coleoptera: Cetoniidae, Bruchidae) w Polsce. *Wiadomości Entomologiczne*, **20**: 91.
- Schaffrath, U.** 2003. Zu Lebensweise, Verbreitung und Gefährdung von *Osmoderma eremita* (Scopoli, 1763) (Coleoptera; Scarabaeoidea, Cetoniidae, Trichiinae). *Philippia*, **10**: 157–336.
- Scopoli, I.A.** 1763. *Entomologia carniolica exhibens Insecta Cornioliae indigena [...]*. Trattner, Vindobonae.
- Smith, A.B.T.** 2004. Clarification on the nomenclatural status of six genus-group names in the tribe Trichiini (Coleoptera: Scarabaeidae: Cetoniinae). *Coleopterists Bulletin*, **58**: 285–291.
- Smith, M.N.** 2003. Saproxylic beetles in Britain, an overview of the status and distribution of four Biodiversity Action Plan species. Pp. 47–49 in Bowen, C.P. (Ed.), *Proceedings of the second pan-European conference on Saproxylic Beetles*. People's Trust for Endangered Species, London.
- Stephens, J.F.** 1830. *Illustrations of British entomology [...]. Mandibulata Vol. III.* 379 pp., 4 pls. Baldwin & Cradock, London.
- Stephens, J.F.** 1839. *A manual of British Coleoptera, or beetles [...]*. 12, 443 pp. Longman, Orme Brown, Green and Longmans, London.
- Tauzin, P.** 2000. Le genre *Aleurostictus* Kirby, 1827. Contribution à sa connaissance et précision sur la distribution des espèces (Coleoptera, Cetoniidae, Trichiinae, Trichiini). *Entomologiste*, **56**: 231–281.
- Tauzin, P.** 2002. *Osmoderma eremita*: compléments sur sa distribution en France et nouvelle information sur la taxonomie du genre (Coleoptera, Cetoniidae, Trichiinae, Osmodermatini). *Entomologiste*, **58**: 145–151.
- Tauzin, P.** 2004a. Quelques localités connues pour les espèces françaises d'*Aleurostictus* (Coleoptera, Cetoniidae, Trichiinae, Trichiini). *Cetoniimania*, **1**: 33–52.
- Tauzin, P.** 2004b. Iconographie de quelques espèces du genre *Aleurostictus* Kirby, 1827 et nouvelle précision sur leur distribution. (Coleoptera, Cetoniidae, Trichiinae, Trichiini). *Cetoniimania*, **2**: 77–94.
- Telnov, D.** 2002. Gefährdete und seltene Wirbellose-Lettlands. Teil II. *Gnorimus nobilis* (L., 1758) (Insecta Coleoptera: Scarabaeidae). *Latvijas Entomologs*, **39**: 38–42.
- Tremblay, E.** 2000. *Entomologia Applicata. Volume IV. Parte I.* 104 pp. Liguori Editore, Napoli.
- Uguarte San Vicente, I. & Uguarte Arrue, B.** 2002. Primer registro de *Osmoderma eremita* (Scopoli, 1763) para la Comunidad Autónoma Vasca y de *Aleurostictus variabilis* (Linnaeus, 1758) para Álava (norte de la Península Ibérica) (Coleoptera, Cetoniidae). *Estudios del Museo de Ciencias naturales de Álava*, **17**: 147–150.
- Vignon, V. & Orabi, P.** 2003. Exploring the hedgerows network in the west of France for the conservation of saproxylic beetles (*Osmoderma eremita*, *Gnorimus variabilis*, *Lucanus cervus*, *Cerambyx cerdo*). Pp. 36–38 in Bowen, C.P. (Ed.), *Proceedings of the second pan-European conference on Saproxylic Beetles*. People's Trust for Endangered Species, London.

- Voolma, K. & Randveer, T.** 2003. *Gnorimus variabilis* (Linnaeus, 1758) (Coleoptera: Scarabaeidae), a new record from Estonia. *Baltic Journal of Coleopterology*, **3**: 51–52.
- Walter, D.E. & Lindquist, E.E.** 1997. Australian species of *Lasioseius* (Acari: Mesostigmata: Ascidae): the *porulosus*-group and other species from rainforest canopies. *Invertebrate Taxonomy*, **11**: 525–547.
- Whitehead, P.F.** 2003. The noble chafer *Aleurostictus nobilis* (L., 1758) (Col., Scarabaeidae) in Britain. Pp. 17–31 in Bowen, C.P. (Ed.), *Proceedings of the second pan-European conference on Saproxyllic Beetles held at Royal Holloway, University of London, June 2002*. People's Trust for Endangered Species, London.
- Wu, Wei-nan & Wang, Ching-ling.** 1982. A new species of *Gnorimus* from Fujian (Acarina: Phytoseiidae). *Wuyi Science Journal*, **2**: 134–136.
- Zhang, Yan-xuan & Lin, Jian-zhen.** 1986. (Identification of phytoseiids—the four species of natural enemies [sic] for controlling [sic] tarsonemids on rice). *Entomological Knowledge*, **23**: 83–85. [In Chinese].
- Zhang, Yan-xuan & Lin, Jian-zhan.** 1989. Role of *Gnorimus chauthrii* (Acari: Phytoseiidae) in controlling tarsonemid mite in paddy fields in China. *Indian Journal of Acarology*, **10**: 83–86.
- Zhang, Yan-xuan & Lin, Jian-zhen.** 1991. Studies on *Gnorimus chauthrii* (Acari: Phytoseiidae), an important predator of tarsonemid mites in rice fields. *Chinese Journal of Biological Control*, **7**: 163–165. [In Chinese].

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Case 3323***Rana ocellata* Linnaeus, 1758 (currently *Leptodactylus ocellatus*; Amphibia, Anura): proposed conservation of usage of the specific name by the designation of a neotype**

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Abstract. The purpose of this application, under Article 75.6 of the Code, is to conserve the usage of the specific name of *Rana ocellata* Linnaeus, 1758 for a species of leptodactylid frog from South America by the designation of a neotype. Prevailing usage of the name is threatened by the identity of the type specimen which is a different species than that which is currently known as *Leptodactylus ocellatus*. It is proposed that all name-bearing types be set aside and a neotype designated in accord with prevailing usage.

Keywords. Nomenclature; taxonomy; Amphibia; Anura; *Leptodactylus*; *Leptodactylus ocellatus*; frog; South America.

1. The nominal species *Rana ocellata* was established by Linnaeus in 1758 (p. 211). Kitchell (1994) translated the original description as: ‘*ocellata* 9. Frog with ocellate ears and stubby feet. *Brown. jam.* 466. *t.* 41. *f.* 4. The largest, compressed, mottled frog. Lives in America. At the ears there is an ocellate [sic] spot on each side. Front feet four-toed and split; rear feet five-toed, subpalmate’. The description itself does not permit unequivocal association with any currently recognized species of frog. The figure cited by Linnaeus is rather stylized and does not represent any species of *Leptodactylus*. The illustration is certainly based on a species of *Rana* as stated by Peters (1872, p. 199).

2. Peters (1872, pp. 197–201) summarized the usage of the name *Rana ocellata* and examined a specimen purported to be the holotype (‘*originalexemplar*’) from the Museum Adolphi Friderici. Herpetologists accepted the nomenclatural status of *Rana ocellata* Linnaeus, 1758 as discussed by Peters (1872) in his influential paper. Peters (1872, p. 200) stated that the specimen was the specimen used by Linnaeus in his description, although he believed that the later more complete description

(Linnaeus, 1764, p. 39) included an error regarding the relative lengths of the toes. Peters did not provide a detailed description of the type other than some measurements and indicated that the specimen was faded and compared extremely well with a specimen (number 3319) in the Berlin Museum. The purported holotype Peters examined was transferred in 1801 from the Museum Adolphi Friderici to the Swedish Museum of Natural History (NRM) in Stockholm and was catalogued as NRM 150 with the following information: 'det. C. Linnaeus / 1764, 1766. Leg: Ex. Coll. Adolphi Friderici Field No: KVA-LIN'. Peters concluded that the type of *Rana ocellata* represented a valid species then recognized in the genus *Cystignathus* (currently *Leptodactylus*) and provided a synonymy. The specimen Peters examined is still extant and seems to be in as good condition as it was when he studied it. The name *Rana ocellata* was established with a description and reference to an illustration (see para. 1 above). However, Peters (1872, p. 200) stated: 'Da es mir so ganz unerwiesen und unwahrscheinlich schien, dass Linné's *Rana ocellata* auf die vorstehende Art zu beziehen sei, wandte ich mich an meinem Freund, Hrn. Professor S. Lovén in Stockholm mit der Anfrage, ob das Originalexemplar zu der aus der Sammlung des Königs Adolph Friederich von Linné beschriebenen *Rana ocellata* vorhanden sei'. We interpret this statement to mean that Peters believed that Linnaeus had a single specimen of the species he described as *Rana ocellata*. Under Article 74.6 of the Code 'if it is considered subsequently that the original description was based on more than one specimen, the first author to have published before 2000 the assumption that the species-group taxon was based upon a single type specimen is deemed to have designated that specimen as the lectotype'. Therefore, designation of the lectotype may be credited to Peters (1872, p. 200). Several years ago Dr Ivan Sazima examined and photographed this specimen and realized that it was not the species that is currently recognized as *Leptodactylus ocellatus* and informally made this information known to his herpetological colleagues. An image of the type specimen is posted on the web at '<http://linnaeus.nrm.se/zool/herp/images/H00150.jpg>'. The lead author (Heyer) recently examined this specimen and confirmed what Dr Sazima had discovered, that the type of *Rana ocellata* Linnaeus, 1758 is conspecific with the species currently known as *Leptodactylus bolivianus* Boulenger, 1898. At the time that Peters examined the type of *Rana ocellata* herpetologists thought that there was a single rather variable species that included the two species now recognized as *Leptodactylus bolivianus* and *L. ocellatus*.

3. The situation is further complicated by the fact that *Leptodactylus bolivianus* and *L. ocellatus* are each recognized as consisting of two or more species. Neither species has been revised based on evaluation of material throughout their extensive geographic ranges. However, both species have been used extensively as experimental laboratory animals, especially in Latin America. Heyer is compiling a bibliography for the genus *Leptodactylus* and has found at least 1,000 publications in which *L. ocellatus* is cited and more than 200 publications where *L. bolivianus* is cited. We are currently revising the taxon understood as *L. ocellatus*. Our preliminary findings indicate that there are both reproductive and molecular differences that represent more than one species, but that the morphologies of these biological taxa are very similar and may not be distinguishable. Applying the name *L. ocellatus* to the species currently known as *L. bolivianus* and resurrecting a synonym of the species currently known as *L. ocellatus* would cause great confusion. Therefore, to provide stability for

the name *L. ocellatus*, we propose that the lectotype of *Rana ocellata* Linnaeus, 1758 be set aside, and a neotype be designated in accord with currently accepted usage of the name, in accordance with Article 75.6 of the Code. Designation of a neotype will fix the identity of the nominal species *L. ocellatus* and enable resolution of the names for other cryptic species currently included in the name *L. ocellatus*. The proposed neotype (MNRJ 30733) was collected from Vale dos Agriões, Teresópolis, 22° 25' S, 42° 58' W, approx. 900 m above sea level, Rio de Janeiro, Brazil on 18 September 1999 by Ulisses Caramaschi, H. de Niemeyer and D. F. de Moraes Jr. The specimen is in the Museu Nacional, Rio de Janeiro, Brazil. There is a viable population at this locality and a DNA sample is available for the specimen. At this time, mtDNA sequence data for the specimen are available at GenBank accession number AY669856.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the nominal species *ocellata* Linnaeus, 1758, as published in the binomen *Rana ocellata*, and to designate specimen MNRJ 30733 in the Museu Nacional, Rio de Janeiro, Brazil, mtDNA sequence data GenBank accession number AY669856, from Vale dos Agriões, Teresópolis, 22° 25' S, 42° 58' W, approx. 900 m above sea level, Rio de Janeiro, Brazil, as the neotype;
- (2) to place on the Official List of Specific Names in Zoology the name *ocellata* Linnaeus, 1758, as published in the binomen *Rana ocellata* and as defined by the neotype designated in (1) above.

References

- Kitchell Jr., K.** 1994. Translation and annotation of the amphibian and reptile section of *Systema Naturae X*. Pp. 3–39 in Kitchell Jr., K. & Dundee, H.A., *A trilogy on the herpetology of Linnaeus's Systema Naturae X*. Smithsonian Herpetological Information Service, no. 100. 61 pp. Smithsonian Institution, Washington, D.C.
- Linnaeus, C.** 1758. *Systema Naturae* (Ed. 10), vol. 1. 824 pp. Salvii, Holmiae.
- Linnaeus, C.** 1764. *Museum S:ae R:ae M:tis Adolphi Friderici Regis Svecorum, Gothorum, Vandalorumque &c. &c. &c. in quo Animalia rariora imprimis & exotica: Aves, Amphibia, Piscis describuntur*, vol. 2. Prodromus. Pp. 110. Holmiae.
- Peters, W.** 1872. Über die von Spix in Brasilien gesammelten Batrachier des Königl. Naturalienkabinetts zu München. *Monatsberichte der Königlichen Preussische Akademie der Wissenschaften Berlin*, **1872**: 196–227.

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Case 3351***Chelodina rugosa* Ogilby, 1890 (currently *Macrochelodina rugosa*; Reptilia, Testudines): proposed precedence over *Chelodina oblonga* Gray, 1841**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the current usage of the name *Chelodina rugosa* Ogilby, 1890 (currently *Macrochelodina rugosa*) for the northern long-necked turtle from northern Australia. The recent finding that *Chelodina oblonga* Gray, 1841 is a subjective senior synonym of *Chelodina rugosa* threatens nomenclatural stability. It is proposed that the name *Chelodina rugosa* is given precedence over *Chelodina oblonga* whenever the two are considered to be synonyms.

Keywords. Nomenclature; taxonomy; Reptilia; Testudines; CHELIDAE; *Macrochelodina*; *Chelodina*; *Chelodina oblonga*; *Chelodina rugosa*; *Chelodina colliei*; Australia; side-necked turtle; northern long-necked turtle.

1. J.E. Gray, during his tenure as Keeper of Zoology at the British Museum, London, described many Australian turtles. Among them were *Chelodina oblonga* Gray, 1841 (p. 446) (holotype Natural History Museum, London, (BMNH) 1947.3.5.89, from Western Australia) and *Chelodina colliei* Gray, 1856 (p. 200) (lectotype Natural History Museum, London (BMNH) 1947.3.5.91 from Swan River; designated by Thomson, 2000, p. 747). Gray (1856, 1857, 1870, 1873) continued to regard the two species as distinct. Gray (1870, p. 72) gave the range of *Chelodina oblonga* as north and west Australia. Gray (1873, pp. 62–63) gave the locality data for the three specimens of this species in the museum, two from Port Essington and one from Western Australia.

2. *Chelodina colliei* was treated as a junior synonym of *Chelodina oblonga* by Boulenger (1889), who also published the combined range as north and west Australia. Strauch (1890) and Schenkel (1901) followed Boulenger by assigning material from Thursday Island and Prince of Wales Island (Torres Strait, northern Australia) to *Chelodina oblonga*.

3. Ogilby (1890, p. 56) described *Chelodina rugosa* (holotype Australian Museum R6256) from Cape York, Queensland; it was rapidly synonymised with *Chelodina oblonga* (Boulenger, 1890; Boulenger, 1892; Siebenrock, 1905).

4. Werner (1901) described *Chelodina siebenrocki* (holotype Zoologisches Museum, Berlin ZMB16491) from Papua New Guinea. This species was synonymised with *C. oblonga* by Siebenrock (1915), although some subsequent authors have thought it to be distinct.

5. For the next 62 years the name *Chelodina oblonga* was used for the turtle species from northern and Western Australia (Werner, 1909; Siebenrock, 1909, 1915; Rooij, 1915; Loverige, 1934; Mertens & Wermuth, 1955; Wermuth & Mertens, 1961; Worrell, 1963; Pritchard, 1967).

6. Burbidge (1967, unpublished thesis) and Goode (1967) considered the south-western Western Australian *Chelodina* species distinct from the allopatrically-distributed tropical populations, and restricted to it the name *C. oblonga* Gray, 1841. Goode (1967) applied the name *Chelodina siebenrocki* Werner, 1901 to the northern Australia species, with *C. rugosa* in synonymy, despite the priority of the latter name. Goode's nomenclature was followed by Peters (1969).

7. The priority of *C. rugosa* over the name *C. siebenrocki* was noted by Cogger & Lindner (1974) and Burbidge et al. (1974), both publications also regarding the two species as distinct, having used the name *C. rugosa* for the northern Australia species. Cann (1972) had similarly used the name *C. rugosa* for the northern Australian species, without discussion.

8. Burbidge et al. (1974) provided further serological and morphological evidence for the distinctiveness of *C. oblonga* and *C. rugosa*.

9. The name *C. rugosa* has, since 1974, been used consistently for the northern Australian species (Covacevich et al., 1990; Thomson & Georges, 1996; Thomson et al., 2000; McCord & Thomson, 2002), including ecological studies (Cann, 1980a; Kennett & Georges, 1989; Kennett et al., 1993; Kennett, 1996; Kennett & Tory, 1996), field survey reports (Cann, 1980b, 1980c; Shea et al., 1988), phylogenetic and karyological analyses (Gaffney, 1977; Bull & Legler, 1980; Pritchard, 1984; Georges & Adams, 1992; Seddon et al., 1997; Georges et al., 1999; Thomson et al., 2000; McCord & Thomson, 2002; Iverson et al., 2001; Thomson et al., 2005).

10. The name *Chelodina oblonga* was applied solely to the northern long-necked turtle from 1841 to 1889, a total of 48 years. Since Boulenger (1889), as a composite species it also incorporated the south-west long-necked turtle until 1967, a total of 78 years. Since 1967 it has been restricted to the south west long-necked turtle (originally named *C. collicii*), a total of 33 years. Much recent literature has also used the name in this way (Cogger, 1975; Rhodin & Mittermeier, 1976, 1977; Wermuth & Mertens, 1977; Cann, 1978, 1998; Pritchard, 1979, 1984; Bull & Legler, 1980; Burbidge, 1981; Cogger et al., 1983; Iverson, 1986; Kutchling, 1988, 1989; King & Burke, 1989; Georges & Adams, 1992; Thomson & Georges, 1996; Seddon et al., 1997; Georges et al., 1999; Thomson et al., 2000; McCord & Thomson, 2002; Thomson et al., 2005).

11. Cann (1998) expressed doubts that the south-western species is conspecific with the holotype of *Chelodina oblonga*. Subsequently, Thomson (2000) demonstrated that, contrary to the findings of Rhodin & Mittermeier (1977), the holotype of *C. oblonga* is conspecific with the holotype of *C. rugosa* and not with the south-western species to which the name has recently been applied. He restricted the type locality of *C. oblonga* to Port Essington, Northern Territory. He also noted that *Chelodina collicii* could be resurrected from synonymy as the only available name for the south-western species.

12. The argument has been made among researchers that the name *Chelodina oblonga* should be conserved over the name *Chelodina collicii* for the south-west Western Australian species due to consistent usage. However, to my knowledge, this recommendation has not been put in press or formally recommended anywhere. In

my opinion, it would be more practical to use the name *Chelodina colliei* for the south-west Western Australian species because the taxonomy of the species known as *Chelodina rugosa* is far from resolved. The holotype of *Chelodina rugosa* is from Cape York, in north-east Australia, and that of *Chelodina oblonga* is from Port Essington, in north-west Australia; they are from the extreme east and west limits of the range of the species. Morphological and electrophoretic differences have been found between them (Georges & Adams, 1992; Georges et al., 1996; Thomson et al., 2000) and the same can be said of the Papuan species *Chelodina siebenrocki*. At present all these populations are regarded as a single species, but it is possible that they could be proved to be separate species with further study. Hence, it would seem inappropriate to set aside the holotype of a species that may be correctly resurrected in the future. *Chelodina oblonga* should remain an available name for the Northern Territory form of *Chelodina rugosa*.

13. Further complicating this matter is the genus name *Macrochelodina* Wells & Wellington, 1985 (p. 13). The type species of the genus was originally designated as *Chelodina oblonga*. Thomson (2000, p. 747) demonstrated that the holotype of *C. oblonga* is not the same as the current concept of this species from Western Australia, i.e. that the type species of *Macrochelodina* Wells & Wellington, 1985 has been misidentified. Iverson et al. (2001, p. 362) explained that the name *Macrochelodina* is still valid, but designated a new type species as *Chelodina rugosa*, which they considered synonymous with *Chelodina oblonga*, and interpreted this as the original intent of the authors of the genus (Articles 67.9 and 70.3 of the Code – Misidentified type species). Hence the name *Macrochelodina* is the correct generic name for what has been called in the literature the *Chelodina* “B” group (Rhodin & Mittermeier, 1976) and includes the species *Macrochelodina expansa*, *Macrochelodina burrungandjii* and *Macrochelodina parkeri* along with *Macrochelodina rugosa* among the living forms (Georges & Adams, 1992; Rhodin, 1994a, 1994b; Georges et al., 1996; Thomson et al., 2000; Thomson, 2000). *Chelodina colliei*, as correctly applied, is a member of the *Chelodina* or *Chelodina* “A” group (Georges et al., 1996; Thomson et al., 2000; Thomson, 2000).

14. The name *Chelodina rugosa* (currently *Macrochelodina rugosa*) has been in common usage for three decades for the northern Australian species and the name *Chelodina oblonga* has been used for the south-western Australian species for a similar time. It would prove disruptive to now apply *C. oblonga* to the northern species, even though this is the correct name for that species. I do believe, however, that the name *C. colliei* should be conserved for the south-western species following the original descriptions and taxonomy of Gray (1856, 1857, 1870, 1872, 1873).

15. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to give the name *rugosa* Ogilby, 1890, as published in the binomen *Chelodina rugosa*, precedence over the name *oblonga* Gray, 1841, as published in the binomen *Chelodina oblonga*, whenever the two are considered to be synonyms;
- (2) to place on the Official List of Generic Names in Zoology the name *Macrochelodina* Wells & Wellington, 1985 (gender: feminine), type species by subsequent designation by Iverson et al. (2001) *Chelodina rugosa* Ogilby, 1890;

- (3) to place on the Official List of Specific Names in Zoology the following names:
- (a) *colliei* Gray, 1856, as published in the binomen *Chelodina colliei* and as defined by the lectotype (catalogue no. 1947.3.5.91 in the Natural History Museum, London);
 - (b) *rugosa* Ogilby, 1890, as published in the binomen *Chelodina rugosa* and as defined by the holotype (catalogue no. R6256 in the Australian Museum, Sydney) (type species of the genus *Macrochelodina* Wells & Wellington, 1985, with the endorsement that it is to be given precedence over the name *oblonga* Gray, 1841, as published in the binomen *Chelodina oblonga*, whenever the two are considered to be synonyms);
 - (c) *oblonga* Gray, 1841, as published in the binomen *Chelodina oblonga*, with the endorsement that it is not to be given priority over the name *rugosa* Ogilby, 1890, as published in the binomen *Chelodina rugosa*, whenever the two are considered to be synonyms.

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References

- Boulenger, G.A.** 1889. *Catalogue of the Chelonians, Rhynchocephalians, and Crocodiles in the British Museum (Natural History). New Edition.* 311 pp. British Museum (Natural History), London.
- Boulenger, G.A.** 1890. *The Fauna of British India; including Ceylon and Burma. Reptilia and Batrachia.* 18, 541 pp. Taylor & Francis, London.
- Boulenger, G.A.** 1892. Reptilia and Batrachia. *Zoological Record*, **1892**: 27.
- Bull, J.J. & Legler, J.M.** 1980. Karyotypes of side-necked turtles (Testudines, Pleurodira). *Canadian Journal of Zoology*, **58**: 828–841.
- Burbidge, A.A.** 1967. *The biology of south western Australian tortoises.* Ph.D. thesis, University of Western Australia.
- Burbidge, A.A.** 1981. The ecology of the western swamp tortoise *Pseudemydura umbrina* (Testudines: Chelidae). *Australian Wildlife Research*, **8**: 203–223.
- Burbidge, A.A., Kirsch, J.A.W. & Main, A.R.** 1974. Relationships within the Chelidae (Testudines: Pleurodira) of Australia and New Guinea. *Copeia*, **1974**: 392–409.
- Cann, J.** 1972. Notes on some tortoises collected in northern Australia. *Victorian Naturalist*, **89**: 165–168.
- Cann, J.** 1978. *Tortoises of Australia.* 79 pp., 92 pls. Angus and Robertson, Sydney.
- Cann, J.** 1980a. Notes on the reproduction of the northern longnecked tortoise (*Chelodina rugosa*). *Northern Territory Naturalist*, **1**(3): 4–5.
- Cann, J.** 1980b. Kimberley Reptiles. *Geo*, **2**(1): 74–93.
- Cann, J.** 1980c. Confessions of a tortoise freak. *Geo*, **3**(2): 50–69.
- Cann, J.** 1998. *Australian Freshwater Turtles.* 292 pp. Beumont Publishing, Singapore.
- Cogger, H.G.** 1975. *Reptiles and Amphibians of Australia.* 808 pp. Reed Books, Sydney.
- Cogger, H.G., Cameron, E.E. & Cogger, H.M.** 1983. *Zoological Catalogue of Australia. Volume 1. Amphibia and Reptilia.* 313 pp. Australian Government Printing Service, Canberra.
- Cogger, H.G. & Lindner, D.A.** 1974. Frogs and Reptiles. *C.S.I.R.O. Division of Wildlife Research Technical Paper*, **28**: 63–107.

- Covacevich, J., Couper, P., McDonald, K. & Trigger, D.** 1990. Walunarra, Bungarra nali, and the Gangalidda at Old Doomadgee. *Memoirs of the Queensland Museum*, **29**: 322.
- Gaffney, E.S.** 1977. The side-necked turtle family Chelidae: a theory of relationships using shared derived characters. *American Museum Novitates*, **2620**: 1–28.
- Georges, A. & Adams, M.** 1992. A phylogeny of Australian chelid turtles based on allozyme electrophoresis. *Australian Journal of Zoology*, **40**: 453–476.
- Georges, A., Birrell, J., Saint, K., McCord, W. & Donnellan, S.** 1999. A phylogeny for the side-necked turtles (Chelonia: Pleurodira) based on mitochondrial and nuclear gene sequence variation. *Biological Journal of the Linnean Society*, **67**: 213–246.
- Goode, J.** 1967. *Freshwater tortoises of Australia and New Guinea (in the family Chelidae)*. 10, 154 pp. Lansdowne Press, Melbourne.
- Gray, J.E.** 1841. A catalogue of the species of reptiles and amphibia hitherto described as inhabiting Australia, with a description of some new species from Western Australia, and some remarks on their geographical distribution. Pp. 422–449 in Grey, G., *Journals of Two Expeditions of Discovery in Northwest and Western Australia*, vol. 2. Appendix E. T. & W. Boone, London.
- Gray, J.E.** 1856. On some new species of freshwater tortoises from North America, Ceylon and Australia, in the collection of the British Museum. *Proceedings of the Zoological Society of London*, **1855**: 197–202.
- Gray, J.E.** 1857. Description of a new species of *Chelodina* from Australia. *Proceedings of the Zoological Society of London*, **1856[1857]**: 369–371.
- Gray, J.E.** 1870. *Supplement to the catalogue of shield reptiles in the collection of the British Museum. Part I. Testudinata (tortoises)*. 9, 120 pp. British Museum, London.
- Gray, J.E.** 1872. On the genus *Chelymys* and its allies from Australia. *Proceedings of the Zoological Society of London*, **23**: 504–513.
- Gray, J.E.** 1873. *Hand-List of the Specimens of Shield Reptiles in the British Museum*. 4, 124 pp. British Museum, London.
- Iverson, J.B.** 1986. A checklist with distribution maps of the turtles of the world. *SSAR Herpetological Circular*, **14**: 1–14.
- Iverson, J.B., Thomson, S. & Georges, A.** 2001. Validity of the taxonomic changes for turtles proposed by Wells and Wellington. *Journal of Herpetology*, **35**: 365–368.
- Kennett, R.M.** 1996. Growth models for two species of freshwater turtle from tropical northern Australia. *Herpetologica*, **52**: 383–395.
- Kennett, R.M. & Georges, A.** 1989. Turtles of the top end. *Northern Territory Naturalist*, **11**: 31.
- Kennett, R.M., Georges, A. & Palmer-Allen, M.** 1993. Early developmental arrest during immersion of eggs of a tropical chelid turtle, *Chelodina rugosa* (Testudinata: Chelidae), from northern Australia. *Australian Journal of Zoology*, **41**: 37–45.
- Kennett, R.M. & Tory, O.** 1996. Diet of two species of freshwater turtle from tropical northern Australia. *Copeia*, **1996**: 409–419.
- King, F.W. & Burke, R.L.** 1989. *Crocodylian, Tuatara, and Turtle Species of the World. A Taxonomic and Geographic Reference*. 216 pp. Association of Systematics Collections, Washington, DC.
- Kutchling, G.** 1988. Gonadal cycles of the western Australian long-necked turtles *Chelodina oblonga* and *Chelodina steindachneri* (Chelonia: Chelidae). *Records of the Western Australian Museum*, **14**(2): 189–198.
- Kutchling, G.** 1989. Assessment of ovarian follicles and oviductal eggs by ultra-sound scanning in live freshwater turtles, *Chelodina oblonga*. *Herpetologica*, **45**(1): 89–94.
- Loveridge, A.** 1934. Australian reptiles in the Museum of Comparative Zoology, Cambridge, Massachusetts. *Bulletin of the Museum of Comparative Zoology at Harvard College*, **77**(6): 243–383.
- McCord, W. & Thomson, S.** 2002. A new species of *Chelodina* (Testudines: Pleurodira: Chelidae) from Northern Australia. *Journal of Herpetology*, **36**(2): 255–267.
- Mertens, R. & Wermuth, H.** 1955. Die rezenten Schildkroten Krokodile und Brueneschen. *Zoologische Jahrbücher. Abteilung für Systematik*, **83**(5): 323–440.

- Ogilby, J.D. 1890. Description of a new Australian tortoise. *Records of the Australian Museum*, 1: 56–59.
- Peters, U. 1969. Die Siebenrock-Schlangehalsschildkröte (*Chelodina siebenrocki* Werner) in Australien. *Die Aquarien-und Terrarien Zeitschrift*, 22: 217–219.
- Pritchard, P.C.H. 1967. *Living turtles of the world*. 288 pp. T.F.H. Publications, Jersey City, N.J.
- Pritchard, P.C.H. 1979. *Encyclopedia of Turtles*. 895 pp. T.F.H. Publications, Neptune, N.J.
- Pritchard, P.C.H. 1984. Piscivory in turtles, and evolution of the long-necked Chelidae. In Ferguson, M.W. (Ed.), The structure, development and evolution of reptiles. *Zoological Society of London, Symposium*, 52: 87–110.
- Rhodin, A.G.J. 1994a. Chelid turtles of the Australian archipelago: I. A new species of *Chelodina* from southeastern Papua New Guinea. *Breviora*, 497: 1–36.
- Rhodin, A.G.J. 1994b. Chelid turtles of the Australian archipelago: II. A new species of *Chelodina* from Roti Island, Indonesia. *Breviora*, 498: 1–31.
- Rhodin, A.G.J. & Mittermeier, R.A. 1976. *Chelodina parkeri*, a new species of chelid turtle from New Guinea, with a discussion of *Chelodina siebenrocki* Werner, 1901. *Bulletin of the Museum of Comparative Zoology*, 147(11): 465–488.
- Rhodin, A.G.J. & Mittermeier, R.A. 1977. Neural bones in chelid turtles from Australia and New Guinea. *Copeia*, 1977: 370–372.
- Rooij, N. de. 1915. *The reptiles of the Indo-Australian Archipelago. I. Lacertilia, Chelonia, Emydosauria*. 334 pp. E.J. Brill, Leiden.
- Schenkel, E. 1901. Achter Nachtrag zum Katalog der herpetologischen Sammlung des Basler Museums. *Verhandlungen der Naturforschenden Gesellschaft in Basel*, 13(1): 142–199.
- Shea, G.M., Weigel, J., Harwood, A., Floriani, H. & Hemsley, C. 1988. Notes on the herpetofauna of Mitchell Plateau, Western Australia. Results of the 1987 Australian Herpetological Society field trip to the Kimberleys. *Herpetofauna*, 18(1): 9–20.
- Seddon, J., Georges, A., Baverstock, P. & McCord, W. 1997. Phylogenetic relationships of chelid turtles (Pleurodira: Chelidae) based on mitochondrial 12S rRNA gene sequence variation. *Molecular Phylogenetics and Evolution*, 7: 55–61.
- Siebenrock, F. 1905. Chelonologische Notizen. *Zoologischer Anzeiger*, 28: 460–468.
- Siebenrock, F. 1909. Synopsis der rezenten Schildkröten mit Berücksichtigung der in historischer Zeit ausgestorbenen Arten. *Zoologischer Jahrbücher., Suppl.*, 10: 427–468.
- Siebenrock, F. 1915. Die Schildkrötengattung *Chelodina*. Fitz. *Sitzungsberichte der Akademie der Wissenschaften*, 124: 13–35.
- Strauch, A. 1890. Bemerkungen über die Schildkrötensammlung im Zoologischen Museum der Kaiserlichen Akademie der Wissenschaften zu St. Petersburg. *Mémoires. Académie Impériale des Sciences. St. Petersburg*, (7)38(2): 1–127.
- Thomson, S. 2000. The identification of the holotype of *Chelodina oblonga* (Testudines: Chelidae) with a discussion of taxonomic implications. *Chelonian Conservation and Biology*, 3(4): 745–749.
- Thomson, S. & Georges, A. 1996. Neural bones in Australian chelid turtles. *Chelonian Conservation and Biology*, 2: 82–86.
- Thomson, S., Georges, A. & Limpus, C. 2006. A new species of freshwater turtle in the genus *Eelseya* (Testudinata: Pleurodira: Chelidae) from Central Coastal Queensland, Australia. *Chelonian Conservation and Biology*, 5(1): 74–86.
- Thomson, S., Kennett, R. & Georges, A. 2000. A new species of freshwater turtle (Testudines: Chelidae) from the sandstone plateau of Arnhem Land, in tropical northern Australia. *Chelonian Conservation and Biology*, 3(4): 675–685.
- Wells, R. & Wellington, R. 1985. A classification of the Amphibia and Reptilia of Australia. *Australian Journal of Herpetology, Supplementary Series*, 1: 1–61.
- Wermuth, H. & Mertens, R. 1961. *Schildkröten, Krokodile, Brückeneschsen*. 422 pp. Gustav Fischer, Jena.
- Wermuth, H. & Mertens, R. 1977. Liste der rezenten Amphibien und Reptilien. Testudines, Crocodylia, Rhynchocephalia. *Tierreich*, 100: 1–174.
- Werner, F. 1901. Über reptilien und batrachier aus Ecuador und Neu-Guinea. *Verhandlungen der Zoologisch-Botanischen Gesellschaft in Wien*, 51: 593–603.

- Werner, F.** 1909. Reptilia exkl. Geckonidae und Scincidae. *Die Fauna Sudwest-Australiens*, 9(2): 251–278.
- Worrell, E.** 1963. *Reptiles of Australia*. 207 pp. Angus & Robertson, Sydney.

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Case 3347***Pachyramphus* Gray, 1840 (Aves, Passeriformes): proposed conservation of usage of the generic name**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the accustomed usage of the name *Pachyramphus* Gray, 1840 for a genus of cotinga from Central and South America, by the designation of *Tityra viridis* Vieillot, 1816 as the type species of *Pachyramphus* (family COTINGIDAE, or family TYRANNIDAE, subfamily TITYRINAE). It is also proposed that the name *Pachyramphus* Gray, 1839 and all uses of the name before 1840 are suppressed. The name *Pachyramphus* relates to a group of some 16 species of cotinga known as becardes with a widespread distribution throughout Central and South America; *Pachyramphus viridis* is the green-backed becard from northern South America.

Keywords. Nomenclature; taxonomy; Aves; Passeriformes; COTINGIDAE; TYRANNIDAE; TITYRINAE; *Tityra*; *Pachyrhynchus*; *Pachyramphus*; *Tityra viridis*; *Lanius cayanus*; Central America; South America; cotingas; becardes.

1. *Pachyramphus* was originally proposed by Gray (in Gould, 1839, p. 50) as a replacement name (*nomen novum*) for *Pachyrhynchus* Spix, 1825, itself a junior synonym and homonym of *Pachyrhynchus* Wagler (in Hahn, 1822, pl. 6 and text) (suppressed in Opinion 928, August 1970) and a synonym of *Tityra* Vieillot, 1816a (p. 39). The type species of *Pachyramphus* Gray, 1839 is therefore *Lanius cayanus* Linnaeus, 1766 (also the type species of *Tityra* Vieillot, 1816) (Article 67.8).

2. In 1840 Gray (p. 31) again used *Pachyramphus*, in what has become the established and accepted citation, with the single included new combination of '*P. Cuvieri* (Swains.)', which is the type species by monotypy of *Pachyramphus* Gray, 1840.

3. *Psaris cuvierii* Swainson, 1821 (pl. 32 and text) is a junior synonym of *Tityra viridis* Vieillot, 1816b (p. 348).

4. *Lanius cayanus* Linnaeus, 1766 and *Tityra viridis* Vieillot, 1816 are presently assigned to two currently recognized genera of cotinga, *Tityra* Vieillot, 1816a and *Pachyramphus* Gray, 1840 respectively.

5. Usage of *Pachyramphus* Gray, 1840, both long term and current, is demonstrated by the following publications: Bonaparte (1850, p. 180), Sclater (1862, p. 240), Sclater (1888, p. 337), Salvin & Godman (1890, p. 124), Brabourne & Chubb (1912, p. 315), Hellmayr (1929, p. 163), Pinto (1944), Wetmore (1972, pp. 273–286), Peterson & Chalif (1973, p. 138), Ridgely (1976, pp. 224–226), Wolters (1977, p. 170), Snow (1979, p. 229), Sibley & Monroe (1990, p. 368), Sick (1993, p. 484), Ridgely & Tudor (1994, p. 676), American Ornithologists' Union (1998, p. 417), Rodner, Lentino & Restall (2000, p. 83) and Dickinson (2003, p. 344). To the best of our knowledge, *Pachyramphus* Gray, 1839 has not been used since the time of its original publication.

6. It is proposed that the name *Pachyramphus* Gray, 1839 be suppressed, and *Tityra viridis* Vieillot, 1816 be recorded as the specific name of the senior synonym of the type species of *Pachyramphus* Gray, 1840.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress *Pachyramphus* Gray, 1839 for the purposes of both the Principle of Priority and the Principle of Homonymy and all uses of the name before Gray (1840);
- (2) to place on the Official List of Generic Names in Zoology the name *Pachyramphus* Gray, 1840 (gender: masculine), type species by monotypy *Psaris cuvierii* Swainson, 1821, junior synonym of *Tityra viridis* Vieillot, 1816;
- (3) to place on the Official List of Specific Names in Zoology the name *viridis* Vieillot, 1816, as published in the binomen *Tityra viridis* (senior synonym of *Psaris cuvierii* Swainson, 1821, specific name of the type species of *Pachyramphus* Gray, 1840);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Pachyramphus* Gray, 1839, as suppressed in (1) above.

References

- American Ornithologists' Union.** 1998. *Check-list of North American Birds. 7th edition.* 829 pp. American Ornithologists' Union, Washington.
- Bonaparte, C.L.** 1850. *Conspectus Generum Avium*, part 1. 543 pp. Brill, Leiden.
- Brabourne, W.W. & Chubb, C.** 1912. *The birds of South America*, vol. 1. 29, 504 pp. Porter, London.
- Dickinson, E.C.** (Ed.). 2003. *The Howard & Moore Complete Checklist of the Birds of the World.* 1040 pp. Christopher Helm, London.
- Gould, J.** 1839. Birds. Pp. 33–56 in *The Zoology of the Voyage of H.M.S. Beagle, under the command of Capt. Fitzroy, R.N., during the years 1832 to 1836*, Darwin, C. (Ed.), 3(3) [= part 9]. Smith, Elder and Co., London.
- Gray, G.R.** 1840. *A list of the genera of birds with an indication of the typical species of each genus. Compiled from various sources.* 8, 80 pp. R. & J.E. Taylor, London.
- Hahn, C.W.** 1822. *Vögel aus Asien, Africa, America und Neuholland in Abbildungen nach der Natur.* Lieferung 13, pl. 6 and text. Lechner, Nürnberg.
- Hellmayr, C.E.** 1929. Catalogue of birds of the Americas and adjacent islands (Oxyruncidae – Phytotomidae). *Field Museum of Natural History Publications, Zoology series*, 13(6): 1–258.

- Linnaeus, C.** 1766. *Systema Naturae*, Ed. 12, vol. 1, part 1. 532 pp. Salvii, Holmiae.
- Peterson, R.T. & Chalif, E.L.** 1973. *A Field Guide to Mexican Birds*. 22, 298 pp., 48 pls. Houghton Mifflin Co., Boston.
- Pinto, O.M.d.O.** 1944. *Catalogo das Aves do Brasil e lista dos exemplares existentes na coleção do Departamento de Zoologia*. 2. 11, 700 pp. Secretaria da Agricultura, Industria e Comercio, São Paulo.
- Ridgely, R.S.** 1976. *A Guide to the Birds of Panama*. 394 pp., 32 pls. Princeton University Press, Princeton.
- Ridgely, R.S. & Tudor, G.** 1994. *The Birds of South America*, vol. 2 (The suboscine passerines). 12, 814 pp., 52 pls. Oxford University Press, Oxford.
- Rodner, C., Lentino, M. & Restall, R.** 2000. *Checklist of the Birds of northern South America*. 8, 136 pp. Pica Press, Robertsbridge.
- Salvin, O. & Godman, F.D.** 1888–1904. *Biologia Centrali-Americana. Aves*, vol. 2 (text). 4, 598 pp. Taylor and Francis, London.
- Sclater, P.L.** 1862. *Catalogue of a collection of American Birds*. 14, 2, 338 pp., 20 pls. Trubner, London.
- Sclater, P.L.** 1888. *Catalogue of the Passeriformes, or perching birds, in the collection of the British Museum – Oligomyodae, or the families Tyrannidae, Oxyrhamphidae, Pipridae, Cotingidae, Phytotomidae, Philepittidae, Pittidae, Xenicidae, and Eurylaemidae. Catalogue of the Birds in the British Museum*, vol. 14. 19, 494 pp. British Museum, London.
- Sibley, C.G. & Monroe, B.L. Jr.** 1990. *Distribution and taxonomy of the birds of the world*. 24, 1111 pp. Yale University Press, New Haven & London.
- Sick, H.** 1993. *Birds in Brazil, a natural history*. 17, 703, 1 pp., 46 pls. Princeton University Press, New Jersey. [Translated from the Portuguese of a substantially revised version of *Ornitologia Brasileira*, 1985].
- Snow, D.W.** 1979. Family Tyrannidae, Subfamily Tityrinae. Pp. 229–245 in M.A. Traylor, Jr., *Check-list of Birds of the World* 8. Museum of Comparative Zoology, Cambridge, Massachusetts.
- Spix, J.B. von.** 1825. *Avium species novae, quas in itinere per Brasiliam annis 1817–20*, vol. 1. 90, 47 pp., 104 pls. Maximiliani Josephi I. Bavariae regis & M. Schmidt, Monachii.
- Swainson, W.** 1821. *Zoological Illustrations, or original figures and descriptions of new, rare, or interesting Animals, selected chiefly from the classes of Ornithology, Entomology, and Conchology and arranged on the principles of Cuvier and other modern zoologists*, vol. 1. Part 1. Baldwin, Cradock & Joy and W. Wood, London.
- Vieillot, L.P.** 1816a. *Analyse d'une nouvelle ornithologie élémentaire*. 70 pp. A. Belin, Paris.
- Vieillot, L.P.** 1816b. *Nouveau dictionnaire d'histoire naturelle, appliqué*, vol. 3. 581 pp. Lanoe, Paris.
- Wetmore, A.** 1972. *The Birds of the Republic of Panamá*. Part 3. Passeriformes: Dendrocolaptidae (Woodcreepers) to Oxyruncidae (Sharpbills). 4, 631 pp. Smithsonian Institution Press, Washington.
- Wolters, H.E.** 1975–1982. *Die Vogelarten der Erde. Eine systematische Liste mit Verbreitungangaben sowie deutschen und englischen Namen*, Lief. 3 (1977). Pp. 161–240. Paul Parey, Hamburg.

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Comments on the proposed conservation of usage of the specific name of *Eudendrium tenellum* Allman, 1877 (Cnidaria, Hydrozoa) by the designation of a neotype
(Case 3315; see BZN 63: 8–11)

(1) P. Schuchert

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Marques & Vervoort proposed to designate a neotype for *Eudendrium tenellum*, despite the original type specimen still existing. The original type material of *E. tenellum* is of limited use as it lacks hydranths, but its nematocysts agree with the assertion that it is conspecific with *E. capillare* Alder, 1856 (based on my own observations of the type specimen and also a conclusion tentatively given by Marques & Vervoort). Although the nominal species *E. tenellum* was not objectively recognisable, several authors, although not a significant number, referred material to this species, mostly without examining the taxonomically essential nematocyst capsules. Without this information, the species identification within *Eudendrium* is not possible (this includes *E. capillare*). While many of the previous records are likely to have been of *E. capillare* (although most of these records cannot now be checked), some records were recognized as belonging to other species with different nematocysts, including *E. tenellum* described by Hirohito.

Because only a few records of *E. tenellum* are actually based on nematocyst types, I disagree with Marques & Vervoort that *E. tenellum* sensu Hirohito is a well known and widespread species and that this usage should be stabilized. Hirohito's *E. tenellum* has a polysiphonic colony, while *E. tenellum* is otherwise portrayed as monosiphonic. This suggests that most other records of *E. tenellum* are unlikely to belong to the same species as Hirohito's material. I am not convinced that the use of *E. tenellum* sensu Hirohito corresponds to general usage as claimed by the authors. I think it is likely that many previous records of *E. tenellum* were in fact of *E. capillare*—possibly as many or even more as of *E. tenellum* sensu Hirohito—which makes it preferable to maintain the original type fixation.

Eudendrium tenellum was originally described from the western Atlantic, from a region that also falls within the known distribution of *E. capillare*. By designating a specimen from Japan as the neotype, the scope of the original distribution of *E. tenellum* will be completely changed. This is certainly undesirable. Furthermore, the Code requires that a neotype should come as nearly as practicable from the original type locality.

I therefore suggest that the current type fixation is maintained and *E. tenellum* be treated as a subjective synonym of *E. capillare*, while Hirohito's material be assigned to a new nominal species.

To summarise why I oppose the application by Marques & Vervoort:

- (1) the original type and the proposed neotype come from biogeographically very distant areas (tropical W-Atlantic versus temperate N-Pacific);
- (2) the original type material still exists and provides sufficient data to allow *E. tenellum* to be tentatively synonymized with the well known species *E. capillare*;
- (3) many records of *E. tenellum* probably refer to *E. capillare*, and do not match well with the species scope of the proposed neotype material;

- (4) *E. tenellum* sensu Hirohito cannot be considered a widespread and well-known species and should be assigned to a new nominal species.

(2) A.C. Marques

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In his comment (above), Schuchert objected to the proposal to designate a neotype for *Eudendrium tenellum*, arguing that the original type specimen is still existing, although it is of limited value. His arguments are (1) that the original type and the proposed neotype come from biogeographically very distant areas (tropical W-Atlantic versus temperate N-Pacific); (2) that the original type material still exists and provides sufficient data to allow *E. tenellum* to be tentatively synonymized with the well known species *E. capillare*; (3) that many records of *E. tenellum* probably refer to *E. capillare*, and do not match well with the species range of the proposed neotype material; (4) that *E. tenellum* sensu Hirohito cannot be considered a widespread and well known species and that this material would be better assigned to a new nominal species.

The solution proposed by Schuchert, included in item (4) above, would also resolve the taxonomic problem although in a different way. I do not object to Schuchert's solution but some considerations in his arguments and other facts may lead to a decision.

Concerning item (1) above, the original application (Marques & Vervoort, 2006) made clear that the neotype we proposed for *Eudendrium tenellum* was not in accord with the original sense of the author, but would satisfy the use of the species in the sense of subsequent authors. It follows that the geographic location of Allman's holotype is not a concern in the solution of the problem, as argued by Schuchert. This was the reason why we proposed a neotype from Japan, because the material is well preserved and reflects the morphology of the species as used by authors since 1950 (as far as I know, the binomen *E. tenellum* is cited in 22 references since 1950, but only five by three different authors include descriptions). Furthermore, neotypes from other localities were proposed in analogous cases (e.g. Lindner & Calder, 2000; see also Opinion 1986, BZN 59: 51, March 2002).

Concerning item (2) above, the description of *Eudendrium tenellum* Allman, 1877 (p. 8, pl. 4, figs. 3–4) is incomplete and could refer to many species in the genus *Eudendrium*. The nematocysts of the type material of *E. tenellum* may indeed corroborate the hypothesis that the species is conspecific with *E. capillare* Alder, 1856 (see Naumov, 1960, p. 224; Christiansen, 1972, p. 290; Marques & Vervoort, 2006, p. 9; and Schuchert's comments). However, the same cnidome and trophosomal morphology of *E. capillare* is observed in many other species of *Eudendrium* that would require sexual characters to be clearly diagnosed (see discussion in Marques, 2001, pp. 349–350). As a consequence, specimens of *E. capillare* are recorded for many places, being considered possibly cosmopolitan (Watson, 1985, p. 185; Marques, Peña Cantero & Vervoort, 2000, p. 201). Therefore, the synonymy of *E. tenellum* with *E. capillare* must be regarded as tentative as highlighted by Marques & Vervoort (2006, p. 9).

Concerning item (3) above, the widespread occurrence of *E. capillare*, as already demonstrated, is most probably an artifact resulting from imprecise historical taxonomy and generalizations. Schuchert suggests that ‘many records of *E. tenellum* probably refer to *E. capillare*’, but this generalization on the synonymy does not resolve the taxonomic problem that has arisen and given rise to the chaotic situation found for the poorly defined and presumably cosmopolitan species *E. capillare*. In fact, Marques & Vervoort (2006, p. 9) gave a partial (but not exhaustive) list of authors who recorded specimens assigned to *E. tenellum*, but there are at least 65 references to the species. There is no possibility of determining how many of these references are, indeed, to *E. capillare*, and most records should be ignored if no further study of the original material is possible.

Item (4) above is the most important aspect of Marques & Vervoort’s and Schuchert’s proposals, and in which we disagree. This refers to the acceptance of *E. tenellum* auct. Basically, Schuchert considered the neotype inappropriate because it is ‘fascicled’ and, therefore, would differ from most of the records previously assigned to *E. tenellum*. This would indeed make the neotype unrepresentative of the meaning of previous authors and therefore unsuitable to be considered as widespread and well known. However, the colony is unfascicled, as correctly described by Hirohito (1988, p. 88). We (Marques & Vervoort, 2006, p. 9, caption of fig. A) mistakenly described the colony as fascicled and generated the confusion. Therefore, it is not possible based only on morphology (unless for those studies including description of the gonophores, as in Calder, 1972), to determine whether colonies previously described as *E. tenellum* refer to *E. capillare* or to the proposed neotype.

Finally, the genus *Eudendrium* has many nominal species (over 100) that do not fit with well-established species. Based on these arguments, I propose to follow the suggestion Vervoort and I put forward, even though Schuchert’s proposal would also resolve the nomenclatural problems.

Additional references

- Lindner, A. & Calder, D.R. 2000. Case 3166. *Campanularia noliformis* McCrady, 1859 (currently *Clytia noliformis*; Cnidaria, Hydrozoa): proposed conservation of the specific name by the designation of a neotype. *Bulletin of Zoological Nomenclature*, **57**(3): 140–143.
- Marques, A.C. & Vervoort, W. 2006. *Eudendrium tenellum* Allman, 1877 (Cnidaria, Hydrozoa): proposed conservation of usage of the specific name by the designation of a neotype. *Bulletin of Zoological Nomenclature*, **63**(1): 8–11.
- Watson, J.E. 1985. The genus *Eudendrium* (Hydrozoa: Hydroida) from Australia. *Proceedings of the Royal Society of Victoria*, **97**(4): 179–221.

Comment on the proposed conservation of the specific name of *Helix papillaris* Müller, 1774 (currently *Papillifera papillaris*; Mollusca, Gastropoda)
(Case 3319; see BZN **62**: 130–133; **63**: 46–47, 130–131)

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We thank Welter-Schultes (BZN 63: 46–47) for expounding frankly his ideas on how to manage problems of nomenclature in his refusal of our application. We stress, however, that his ideas are not in line with the Code. For example, he writes (p. 46): ‘I think that a simple species taxon possibly being threatened by a senior synonym alone does not justify an application to the Commission. *Helix papillaris* is not the type species of an important genus . . .’ and a few lines further on: ‘Species names have to be replaced by older synonyms . . . Although *Papillifera papillaris* is a well-known name, I could also live with this name being changed’. These phrases indicate that he disagrees with some of the main principles of the Code, namely:

- (1) ‘The Code . . . provides the name that is to be used for a taxon whatever taxonomic limits and rank are given to it’ (Point 2 of Principles, p. xix);
- (2) ‘Nomenclatural rules are tools that are designed to provide maximum stability compatible with taxonomic freedom. . . . Therefore the rules must enable the Principle of Priority to be set aside on occasions when its application would be destructive of stability or universality, or would cause confusion’ (Point 4 of Principles, p. xx).

The latter point is particularly interesting in our case, because in the last 50 years *papillaris* has been cited much more often than *bidens* (a list of citations is held by the Commission Secretariat).

In any case, as we demonstrated in our application, problems of priority are secondary: *Turbo bidens* Linnaeus, 1758 is not a senior synonym of *Helix papillaris* Müller, but a different species characterized by reddish shell (*‘rufescens’*) with simply crenulate suture (*‘sutura subcrenata’*).

Almost anything is possible, but the suggestion that Linnaeus may have examined an ‘old and eroded’ shell in which ‘the white dots’ (the dots are presumably papillae) ‘are expressed much more faintly than in fresh shells’, seems unlikely, since Linnaeus described the shell as *‘pellucida’*, i.e. transparent and therefore fresh.

Confusion between the two species is impossible since the description given by Müller (1774) for his *Helix papillaris* is anything but ‘not clear enough’ as Welter-Schultes claims (against Giusti & Manganelli, 2005, p. 131, para. 6). Indeed, it includes certain characters which, coexisting in a shell, are absolutely diagnostic of Müller’s species: shell ashen-grey (*‘cinerea’*) with sutures bordered by a reddish band and with white papillae (*‘intersectiones anfractuum fuscescunt, punctis elevatis sive papillis parvis candidis pulchre interstinctae’*).

As clearly stated by Giusti & Manganelli (2005, p. 132), the purpose of designating a neotype was only to establish a landmark for future morphological and molecular studies.

The fact that Linnaeus (1767) included Bonanni (1684) in the list of references has no practical consequences, if not as a source of confusion, because *Turbo bidens* remains that defined by Linnaeus (1758).

Finally, the last paragraph of Welter-Schultes’s comment contains personal considerations which are irrelevant to the present problem. These considerations could be more appropriately advanced in the event of a revision of the Code.

Comment on the proposed conservation of the specific name of *Cambalida coriacea* Simon, 1909 (Arachnida, Araneae) by the suppression of *Castianeira fulvipes* Simon, 1896

(Case 3331; see BZN 63: 17–19)

Otto Kraus

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There is no need to conserve the name *Cambalida coriacea* Simon, 1909. Decisive reasons for this view were mentioned in para. 2 of the original application: ‘The CORINNIDAE remains one of the most poorly-studied families of spiders . . .’; see also similar remarks in the applicant’s para. 4. Since their original introduction and until at least 1995, all names in question were not used again, and afterwards in a very few exceptions: *Castianeira fulvipes* Simon, 1896, *Cambalida coriacea* Simon, 1909 and *Cambalida fulvipes* Simon, 1909. No prevailing usage exists. Hence, stability of practically unused names cannot be threatened. The case should be solved by regular application of the Code. One species should be named *Cambalida fulvipes* (Simon, 1896), with the junior subjective synonym *C. coriacea* Simon, 1909. According to Article 60 of the Code and without any harm, the secondary homonymy in the other species should be solved by replacing *C. fulvipes* Simon, 1909 by a new substitute name.

Comment on the proposed precedence of the specific name of *Buprestis sexsignata* Say, 1839 (Insecta, Coleoptera) over those of *Chrysobothris ignipes* Gory & Laporte, 1838 and *Chrysobothris germari* Gory & Laporte, 1838

(Case 3302; see BZN 63: 36–38)

Richard L. Westcott

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In my opinion there can be no reasonable objection to accepting this proposal. The species is widespread and common in the eastern United States and has been cited many times in the literature. T.C. MacRae provides clear evidence why the Gory & Laporte names should be considered nomina oblita. To resurrect either of them from synonymy, thus making invalid a widely used name, *Chrysobothris sexsignata* (Say), would cause much confusion and work against stability.

Therefore, I urge the acceptance of MacRae’s proposal.

Comment on the proposed conservation of the specific name of *Celaenorrhinus ratna* Fruhstorfer, 1908 (Insecta, Lepidoptera)

(Case 3339; see BZN 63(2): 114–117)

Rienk de Jong

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The authors have made a strong case which I fully endorse. In many cases identification is not easy among Asian *Celaenorrhinus* species. With ca. 100 names available it is important that nomenclatural matters do not hamper identification and access to literature. The authors have made a thorough search of the relevant literature, and we can be confident that the name proposed to be suppressed has not ever been used since its introduction in 1907, except for the record mentioned. To further support their claim I like to add that the most complete worldwide catalogue of names in HESPERIIDAE to date, Bridges (1994), a considerably enlarged version of Bridges (1988), incorrectly listed as Bridges (1993, 1998), does not mention Matsumura's name either. The correct references are:

- Bridges, C.A.** 1983. *Lepidoptera: HesperIIDae, Notes on Species-group names*. 274 pp. Bridges, Urbana.
Bridges, C.A. 1988. *Catalogue of HesperIIDae (Lepidoptera: Rhopalocera)*. 590 pp. Bridges, Urbana.
Bridges, C.A. 1994. *Catalogue of the Family-group, Genus-group and Species-group names of the HesperIIDae (Lepidoptera) of the World*. 644 pp. Bridges, Urbana.

Comment on the proposed conservation of *Palamopus* E. Hitchcock, 1845 (Ichnotaxa, Reptilia?)

(Case 3348; see BZN 62: 237–239; 63: 49–50, 131–133)

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1. Moser (see BZN 63: 131–133, para. 1) suggests that *Sauroidichnites* does not need to be suppressed because it is not a valid ichnogenetic name. However, when *Sauroidichnites* was named (Hitchcock, 1837) it was used only at the ichnogenetic level (being used only in binominal combinations with ichnospecies), and not as a supra-ichnogenetic taxon; it was only later used (homonymously) as a supra-ichnogenetic taxon (Hitchcock, 1841). Thus, from its first usage, *Sauroidichnites* is a valid and available ichnogenetic name, and requires either suppression or conservation. If we were to follow Moser's arguments in para. 1, and instead argue that *Sauroidichnites* and the other pre-1845 ichnogeneta were not (or not intended to be) ichnogenetic names (valid and/or available or otherwise), but only supra-ichnogenetic names, then the pre-1845 ichnospecies names would not be valid (validity requiring that the ichnospecific name is associated with an ichnogenetic name, whether that be valid or available or not; Article 11.9.3). In turn, the next valid and available names would be those published (for the most part) in 1845 – which include many objective synonyms of the earlier names. We have then completely destabilized Early Jurassic tetrapod ichnological nomenclature – because, since 1915, all workers in the field have used the older (pre-1845) names. Fortunately, all of the pre-1845 ichnogenetic names (*Ornithichnites*, *Sauroidichnites*, *Batrachoidichnites*, *Tetrapodichnites*) can be shown to have been used in binominal nomenclature (and thus used as ichnogenetic names), and so the species associated with them are valid and available (unless other reasons are present).

2. *Ornithichnites palmatus* Hitchcock, 1836 (currently *Palamopus palmatus*) is the type species of *Sauroidichnites* Hitchcock, 1837 by explicit bibliographic reference; *Ornithichnites palmatus* is both valid and available from its original publication (Hitchcock, 1836). When Hitchcock (1845) renamed and reclassified all of his ichnites, he stated the type species of *Palamopus* to be *Palamopus anomalus*; but *P. anomalus* is the same species as *O. palmatus*, having the same description and being based on the same material (including having the same type specimen); *Palamopus anomalus* is merely an unjustified replacement name for *Ornithichnites palmatus*. Therefore, *P. anomalus* was never a valid name, although it is an available name. Thus, the type ichnospecies of *Palamopus* is *Ornithichnites palmatus*.

3. Moser (para. 4) suggests that I was incorrect in stating that four works had used *Palamopus* as the ichnotaxon name. He speculates that Kuhn (1963) did not consider pre-1845 names to be valid; however, the simple fact that Kuhn gave an 1841 date for *palmatus* indicates he did consider pre-1845 names valid and available. Moser (para. 4) also suggests that Kuhn (1963) and others (e.g. Haubold, 1971) followed Hay (1902) in not accepting the pre-1845 names; however Lull (1915, revised in 1953) and Hay (1930) used and accepted the availability and validity of the pre-1845 ichnospecific names (but only the availability, and not the validity, of the pre-1845 ichnogenetic names); Hay (1930) also explicitly stated that he did not consider his 1902 work to be nomenclaturally binding. Lull's 1953 tome is considered the key modern reference for Early Jurassic ichnology (and Hitchcock's material in particular), and its nomenclatural system (i.e. Hitchcock's pre-1845 species names) is followed by modern workers and is infused throughout the literature. Finally, Olsen & Padian (1986) only tentatively subjectively synonymized *Palamopus palmatus* and *Batrachopus deweyi* – using *Palamopus* rather than *Sauroidichnites* as the valid ichnogenetic 'home' for the ichnospecies *palmatus*. Of the few workers (other than Hitchcock) that have even mentioned this ichnotaxon since 1844 (see Rainforth, 2005 and Moser, 2006), it is critical to note that none has considered *Sauroidichnites* to be the valid ichnogenetic name; they have all treated *Palamopus* or one of its subjective or objective synonyms as the valid name.

4. Moser (para. 5) suggests that my previous (Rainforth, 2005) reasoning does not support the suppression of *Sauroidichnites*. I stress, however, that 100% of the usage – (whether 'prevailing' or not by the current Code's standards) since 1844 has been of an ichnogenetic name other than *Sauroidichnites* (whether that be *Palamopus* or an objective or subjective synonym), and usage of *palmatus* rather than *anomalus* as the valid (and available) name. Due to the inherent problems with retention of *Sauroidichnites* (alluded to by Lucas, 2006), which is both valid and available as an ichnogenetic name from its original publication (in which it was only used as an ichnogenus, not as a supra-ichnogenetic taxon), it is important that it be suppressed. Contra to Moser (para. 6), we cannot simply argue the name away as an unavailable name (on the basis of homonymy with a supra-ichnogenetic taxon) to get rid of the problem, because, in the original publication (Hitchcock, 1837), the name is only used in binominal combination, i.e. as an ichnogenus; it was not used as a supra-ichnogenetic name until 1841.

5. A final philosophical note. Edward Hitchcock's concept of ichnogenera changed in 1845, when the ichnospecies previously referred to *Sauroidichnites* were transferred to seven ichnogenera including *Palamopus* (the destination for the type ichnospecies

of *Sauroidichnites*). It is desirable to retain *Palamopus*, because Hitchcock's three pre-1845 ichnogenera were named as the footprints made by three different classes of tetrapods, whereas the 1845 and later ichnogenera were named under a new philosophy in which ichnogenera were distinguished with much higher morphological resolution, representing individual animal species or genera. As a result, *Palamopus* and *Sauroidichnites* are philosophically different, and have different diagnoses, descriptions, and species compositions. Retaining *Sauroidichnites* (in place of *Palamopus*) for *Ornithichnites palmatus* would thus essentially be mixing ichnotaxonomic apples (the 1836–1844 ichnogenera) and oranges (the 1845 and later ichnogenera).

Additional reference

Hay, O.P. 1930. Second Bibliography and Catalogue of the Fossil Vertebrata of North America. *Carnegie Institute of Washington Publication*, **390-2**: 1–1074.

OPINION 2156 (Case 3262)***Nautilus spengleri* Gmelin, 1791 (currently *Calcarina spengleri*) and *Calcarina hispida* Brady, 1876 (Foraminiferida): usage of the specific names conserved by the designation of a replacement neotype for *Nautilus spengleri***

Abstract. The Commission has ruled that the prevailing usage of both *Nautilus spengleri* Gmelin, 1791 (the type species of the prominent reef foraminiferan genus *Calcarina* d'Orbigny, 1826 (family CALCARINIDAE)) and *Calcarina hispida* Brady, 1876 is conserved by the designation of a replacement neotype for *N. spengleri*. In 1981, H.J. Hansen designated a neotype for *N. spengleri*, but this is a specimen of *C. hispida* Brady, 1876.

Keywords. Nomenclature; taxonomy; Foraminiferida; CALCARINIDAE; *Calcarina spengleri*; *Calcarina hispida*; foraminifera.

Ruling

- (1) Under the plenary power it is hereby ruled that all type fixations for the nominal species *spengleri* Gmelin, 1791, as published in the binomen *Nautilus spengleri*, are set aside and specimen NHMW Inv. Mi-541 is designated as the neotype of *Nautilus spengleri*.
- (2) The entry on the Official List of Specific Names in Zoology for *Nautilus spengleri* Gmelin, 1791 is hereby emended to record that it is to be interpreted by the neotype NHMW Inv. Mi-541 in the Naturhistorisches Museum, Vienna.

History of Case 3262

An application to conserve the prevailing usage of both *Nautilus spengleri* Gmelin, 1791 (the type species of the prominent reef foraminiferan genus *Calcarina* d'Orbigny, 1826 (family CALCARINIDAE)), and *Calcarina hispida* Brady, 1876 by the designation of a replacement neotype for *N. spengleri* was received from Willem Renema (*Nationaal Natuurhistorisch Museum, Leiden, The Netherlands*) and Johann Hohenegger (*Institut für Palaeontologie, Universität Wien, Wien, Austria*) on 19 December 2002. After correspondence the case was published in BZN 62: 64–67 (June 2005). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 January 2006 the members of the Commission were invited to vote on the proposals published in BZN 62: 66. At the close of the voting period on 1 April 2006 the votes were as follows:

Affirmative votes: – 19: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahner, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes: – none.

No votes were received from Ng and Song.

Original reference

The following is the original reference to the name on an Official List emended by the ruling given in the present Opinion:

spengleri, *Nautilus*, Gmelin, 1791, *Systema Naturae Linnaei*, Ed. 13, vol. 1(6), p. 3371.

OPINION 2157 (Case 3309)***Rosacea* Quoy & Gaimard, 1827: usage conserved; *Desmophyes annectens* Haeckel, 1888 and *Rosacea plicata* Bigelow, 1911: conserved (Cnidaria, Siphonophora)**

Abstract. The Commission has ruled that the usage of the generic name *Rosacea* Quoy & Gaimard, 1827 is conserved by the designation of *R. plicata* Bigelow, 1911 as its type species, and the names *Desmophyes annectens* Haeckel, 1888 and *Rosacea plicata* Bigelow, 1911 are conserved for two widely distributed species of calyco-phoran prayid siphonophores.

Keywords. Nomenclature; taxonomy; Cnidaria; Siphonophora; PRAYIDAE; *Desmophyes*; *Rosacea*; *Desmophyes annectens*; *Rosacea plicata*; calyco-phoran prayid siphonophores.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) the name *plicata* Quoy & Gaimard, 1827, as published in the binomen *Rosacea plicata*, and all uses of the name before that by Bigelow (1911) are suppressed for the purposes of both the Principle of Priority and the Principle of Homonymy;
 - (b) all previous fixations of type species for the nominal genus *Rosacea* Quoy & Gaimard, 1827 are set aside and *Rosacea plicata* Bigelow, 1911 is designated as the type species.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Desmophyes* Haeckel, 1888 (gender: masculine), type species by monotypy *Desmophyes annectens* Haeckel, 1888;
 - (b) *Rosacea* Quoy & Gaimard, 1827 (gender: feminine), type species by designation in (1)(b) above *Rosacea plicata* Bigelow, 1911.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *annectens* Haeckel, 1888, as published in the binomen *Desmophyes annectens* (specific name of the type species of *Desmophyes* Haeckel, 1888);
 - (b) *plicata* Bigelow, 1911, as published in the binomen *Rosacea plicata* and defined by the lectotype, designated as a neotype by Pugh & Harbison (1987), registered as BMNH Reg. No. 1939.6.10.1 in the Natural History Museum, London (specific name of the type species of *Rosacea* Quoy & Gaimard, 1827).
- (4) The name *plicata* Quoy & Gaimard, 1827, as published in the binomen *Rosacea plicata*, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology (suppressed in (1)(a) above).

History of Case 3309

An application to conserve the usage of the generic name *Rosacea* Quoy & Gaimard, 1827 by the designation of *R. plicata* Bigelow, 1911 as its type species, and to conserve the names *Desmophyes annectens* Haeckel, 1888 and *Rosacea plicata* Bigelow, 1911 was received from Gillian M. Mapstone (*Natural History Museum, London SW7 5BD, U.K.*) and Philip R. Pugh (*National Oceanography Centre, European Way, Southampton SO14 3ZH, U.K.*) on 19 December 2003. After correspondence the case was published in **BZN 61**: 149–153 (September 2004). The title, abstract and keywords of the case were published on the Commission's website. A comment in support of the application was published in **BZN 62**: 84.

Decision of the Commission

On 1 September 2005 the members of the Commission were invited to vote on the proposals published in **BZN 61**: 151. At the close of the voting period on 1 December 2005 the votes were as follows:

Affirmative votes: – 14: Bock, Brothers, Fortey, Halliday, Macpherson, Mahnert, Mawatari, Minelli, Ng, Nielsen, Papp, Rosenberg, Song and van Tol.

Negative votes: – 6: Alonso-Zarazaga, Bouchet, Calder, Lamas, Patterson and Štys.

Kerzhner abstained.

Voting against, Alonso-Zarazaga, Bouchet, Lamas and Štys considered that *Rosacea plicata* Bigelow, 1911 should be regarded as a misidentification of *Rosacea plicata* Quoy & Gaimard, 1827 rather than a new name. Alonso-Zarazaga pointed out that the gender of the genus *Desmophyes* Haeckel, 1888 should be treated as masculine rather than feminine.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

annectens, *Desmophyes*, Haeckel, 1888, *Report on the scientific results of the voyage of H.M.S.*

Challenger during the years 1872–76, *Zoology*, **28**: 170.

Desmophyes Haeckel, 1888, *Jenaische Zeitschrift für Naturwissenschaft*, **22**: 36.

plicata, *Rosacea*, Bigelow, 1911, *Transactions of the Linnean Society of London*, Series 2, *Zoology*, **10**(10): 201–203.

plicata, *Rosacea*, Quoy & Gaimard, 1827, *Annales des Sciences Naturelles* (Series 1), **10**: 177.

Rosacea Quoy & Gaimard, 1827, *Annales des Sciences Naturelles* (Series 1), **10**: 176–177.

The following is the reference for the designation of a lectotype (originally as a neotype) for *Rosacea plicata* Bigelow, 1911:

Pugh, P.R. & Harbison, G.R. 1987. *Bulletin of Marine Science*, **41**(1): 86.

OPINION 2158 (Case 3324)***Tramea* Hagen, 1861 (Insecta, Odonata): conserved**

Abstract. The Commission has ruled that the name *Tramea* Hagen, 1861 is conserved for a group of common and widespread dragonflies by suppression of the senior objective synonym *Trapezostigma* Hagen, 1849. In addition, it is ruled that all previous fixations of type species for the nominal genus *Tramea* Hagen, 1861 before that by Kirby (1889) of *Libellula carolina* Linnaeus, 1763 are set aside.

Keywords. Nomenclature; taxonomy; Odonata; LIBELLULIDAE; *Tramea*; *Trapezostigma*; *Tramea carolina*; dragonflies.

Ruling

- (1) Under the plenary power it is hereby ruled that:
 - (a) the generic name *Trapezostigma* Hagen, 1849 is suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
 - (b) all fixations of type species for the nominal genus *Tramea* Hagen, 1861 before the designation of *Libellula carolina* Linnaeus, 1763 by Kirby (1889) are set aside.
- (2) The name *Tramea* Hagen, 1861 (gender: feminine), type species by subsequent designation by Kirby (1889) *Libellula carolina* Linnaeus, 1763 is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *carolina* Linnaeus, 1763, as published in the binomen *Libellula carolina* (specific name of the type species of *Tramea* Hagen, 1861), is hereby placed on the Official List of Specific Names in Zoology.
- (4) The name *Trapezostigma* Hagen, 1849 is hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology (suppressed in (1)(a) above).

History of Case 3324

An application to conserve the name *Tramea* Hagen, 1861 for a group of common and widespread dragonflies by suppression of the senior objective synonym *Trapezostigma* Hagen, 1849 and to set aside all previous fixations of type species for *Tramea* before that by Kirby (1889) of *Libellula carolina* Linnaeus, 1763 was received from K.-D.B. Dijkstra and J. van Tol (*National Museum of Natural History, Naturalis, Leiden, The Netherlands*), J. Legrand (*Muséum National d'Histoire Naturelle, Laboratoire d'Entomologie, F-75005 Paris, France*) and G. Theischinger (*Grays Point, N.S.W., Australia*) on 21 July 2004. After correspondence the case was published in BZN 62: 68–71 (June 2005). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 January 2006 the members of the Commission were invited to vote on the proposals published in BZN 62: 69–70. At the close of the voting period on 1 April 2006 the votes were as follows:

Affirmative votes: – 18: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Štys and van Tol.

Negative votes: – 1: Rosenberg.

No votes were received from Ng and Song.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

carolina, *Libellula*, Linnaeus, 1763, *Amoenitates Academicae*, **6**: 411.

Tramea Hagen, 1861, *Smithsonian Miscellaneous Collections*, **4**: 143.

Trapezostigma Hagen, 1849, *Entomologische Zeitung, Stettin*, **10**(6): 174.

The following is the reference for the designation of *Libellula carolina* Linnaeus, 1763 as the type species of the nominal genus *Tramea* Hagen, 1861:

Kirby, W.F. 1889. *Transactions of the Zoological Society of London*, **12**: 268.

OPINION 2159 (Case 3072)***Crioceris* Geoffroy, 1762, *Lilioceris* Reitter, 1912 and other genus-group names with the suffix *-ceris* in the family CHRYSOMELIDAE (Insecta, Coleoptera): Official Correction of gender to feminine**

Abstract. The Commission has ruled that the gender of the names of two economically important genera of beetles recognized as crop pests, *Crioceris* Geoffroy, 1762 and *Lilioceris* Reitter, 1912, and other genus-group names with the suffix *-ceris* in the family CHRYSOMELIDAE are fixed as feminine.

Keywords. Nomenclature; taxonomy; CHRYSOMELIDAE; *Crioceris*; *Crioceris asparagi*; *Lilioceris*; *Lilioceris lili*; beetles; crop pests.

Ruling

- (1) It is hereby ruled that the gender of generic names in the family CHRYSOMELIDAE ending with the suffix *-ceris* are feminine.
- (2) The entries on the Official List of Generic Names in Zoology for the following names are hereby emended to record that their gender is feminine:
 - (a) *Crioceris* Geoffroy, 1762 (gender: feminine), type species by subsequent designation by the Commission *Chrysomela asparagi* Linnaeus, 1758, placed on the Official List of Generic Names in Zoology in Opinion 908;
 - (b) *Lilioceris* Reitter, 1912 (gender: feminine), type species by subsequent designation by Chûjô (1951) *Attelabus lili* Scopoli, 1763, placed on the Official List of Generic Names in Zoology in Opinion 908.

History of Case 3072

An application to fix the gender as feminine for the names of two economically important genera of beetles, *Crioceris* Geoffroy, 1762 and *Lilioceris* Reitter, 1912, and other genus-group names with the suffix *-ceris* in the family CHRYSOMELIDAE was received from Michael Schmitt (*Zoologisches Forschungsinstitut und Museum Alexander Koenig, Bonn, Germany*) on 17 October 1997. After correspondence the case was published in BZN 62: 72–74 (June 2005). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 January 2006 the members of the Commission were invited to vote on the proposals published in BZN 62: 73. At the close of the voting period on 1 April 2006 the votes were as follows:

Affirmative votes: – 19: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes: – none.

No votes were received from Ng and Song.

Original references

The following are the original references to the names on an Official List emended by the ruling given in the present Opinion:

Crioceris Geoffroy, 1762, *Histoire abrégée des insectes qui se trouvent aux environs de Paris*, vol. 1, p. 237.

Lilioceris Reitter, 1912, *Fauna Germanica*, 4: 79.

The following is the reference for the designation of *Attelabus lilii* Scopoli, 1763 as the type species of the nominal genus *Lilioceris* Reitter, 1912:

Chûjô, M. 1951. *Kagawa Agricultural College, Technical Bulletin*, 2(2): 80.

OPINION 2160 (Case 3280)***Melitaea nycteis* Doubleday, 1847 (currently *Chlosyne nycteis*; Insecta, Lepidoptera): specific name conserved**

Abstract. The Commission has ruled that the specific name *Melitaea nycteis* Doubleday, 1847 (currently *Chlosyne nycteis*) is conserved for a widespread North American species of butterfly (family NYMPHALIDAE) by suppression of the problematic name *M. ismeria* Boisduval & Le Conte, 1835.

Keywords. Nomenclature; taxonomy; Lepidoptera; NYMPHALIDAE; *Melitaea*; *Chlosyne nycteis*; *Chlosyne gorgone*; *Chlosyne ismeria*; butterflies.

Ruling

- (1) Under the plenary power it is hereby ruled that the specific name *ismeria* Boisduval & Le Conte, 1835, as published in the binomen *Melitaea ismeria*, is suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy.
- (2) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *gorgone* Hübner, 1810, as published in the trinomen *Dryas reticulata gorgone* and as defined by the neotype (labelled: 'Neotype ♂, *Dryas reticulata gorgone*', deposited in the McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, Gainesville, Florida) designated by Gatrelle (1998);
 - (b) *nycteis* Doubleday, 1847, as published in the binomen *Melitaea nycteis* and as defined by the holotype (B.M. Type no. Rh 8433 in the Natural History Museum, London).
- (3) The name *ismeria* Boisduval & Le Conte, 1835, as published in the binomen *Melitaea ismeria* and as suppressed in (1) above, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3280

An application to conserve the specific name *Melitaea nycteis* Doubleday, 1847 (currently *Chlosyne nycteis*) (NYMPHALIDAE) was received from John V. Calhoun (977 Wicks Drive, Palm Harbor, Florida 34684, U.S.A.), Lee D. Miller and Jacqueline Y. Miller (McGuire Center for Lepidoptera and Biodiversity, Florida Museum of Natural History, University of Florida, Gainesville, Florida, U.S.A.) on 2 April 2003. After correspondence the case was published in BZN 62: 79–83 (June 2005). The title, abstract and keywords of the case were published on the Commission's website. Comments in support of the application were published in BZN 62: 150–152. No comments opposing the case were received.

Decision of the Commission

On 1 January 2006 the members of the Commission were invited to vote on the proposals published in BZN 62: 81. At the close of the voting period on 1 April 2006 the votes were as follows:

Affirmative votes: – 19: Alonso-Zarazaga, Bock, Bouchet, Brothers, Calder, Fortey, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Nielsen, Papp, Patterson, Rosenberg, Štys and van Tol.

Negative votes: – none.

No votes were received from Ng and Song.

Original references

The following are the original references to the names placed on an Official List and an Official Index by the ruling given in the present Opinion:

gorgone, *Dryas reticulata*, Hübner, 1810, *Sammlung Exotischer Schmetterlinge*, pl. [41], figs. 1–2.

ismeria, *Melitaea*, Boisduval & Le Conte, 1835, *Histoire générale et iconographie des lépidoptères et des chenilles de l'Amérique septentrionale*, p. 168, pl. 46.

nycteis, *Melitaea*, Doubleday, 1847, *The genera of diurnal Lepidoptera: comprising their generic characters, a notice of their habits and transformations and a catalogue of the species of each genus*, vol. 1, pl. 23, fig. 3.

The following is the reference for the designation of the neotype of *Dryas reticulata gorgone* Hübner, 1810:

Gatrelle, R.R. 1998. *Taxonomic Report*, 1(2): 5.

***Mammal Species of the World. A taxonomic and geographic reference.* 2005. Don E. Wilson & DeeAnn M. Reeder (Eds.). Ed. 3, 2 vols., 2142 pp. Johns Hopkins University Press, Baltimore. ISBN 0-8018-8221-4**

A nomenclatural review

Anthea Gentry

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Publication of the new edition of *Mammal Species of the World* is a considerable achievement and is most welcome. Once again it is edited by Don E. Wilson and DeeAnn M. Reeder. The previous edition was published in 1993 and since then there have been significant changes. The work is now presented in two volumes, the near doubling in size resulting from the inclusion of accepted subspecies, English vernacular names for each recognised species, authorship and dates for all synonyms, and a large increase in the number of bibliographic references (which include publications up to the end of 2003 and some works then in press). There has also been an increase from 4629 recognised species in 1993 to 5416 in the current edition. Volume 1 of the work (pp. i-xxxv, 1-743) contains the list of 26 specialist contributors, preface, acknowledgments, introduction, list of museum abbreviations and all the orders except rodents; volume 2, which is larger, contains the rodents (pp. 745-1600), references (pp. 1601-1944), index of scientific names (pp. 1945-2115) and index of English vernacular names (pp. 2115-2142).

The work covers extant and recently extinct species (those probably alive during the past 500 years). Information now given for each species includes the type locality, distribution, a complete list of synonyms including those for currently recognised subspecies, status in the IUCN *Red list of threatened animals* (2003), CITES appendices (2004) and the U.S. Endangered Species Act (2004), and a record of ICZN rulings. The work reflects the numerous taxonomic changes since the previous edition at both the species and higher levels (the 26 orders in the previous edition have now increased to 29).

During my university studies I specialised in mammalogy and subsequently worked as a mammal palaeontologist. While employed in the ICZN Secretariat (1987-2002) I researched and published a number of mammal nomenclatural applications, sometimes co-authored with colleagues, relating to both Recent and fossil taxa. I also processed other mammal cases submitted by fellow workers. I was interested to see how names approved by the Commission had been treated in the new *Mammal Species of the World*.

A number of applications submitted to the Commission sought to set aside a hitherto overlooked type species designation in order to conserve the current usage of one or more generic names. Such applications included Case 3058 (BZN 56: 136-141, June 1999) on the fur seal names *Arctocephalus* F. Cuvier, 1826 and *Callorhinus* Gray, 1859, and the sea lion names *Otaria* Péron, 1816 and *Eumetopias* Gill, 1866, and Case 3121 (BZN 56: 255-261, December 1999) on the rodent names *Holochilus*

Brandt, 1835, *Proechimys* J.A. Allen, 1899 and *Trinomys* Thomas, 1921. The Commission approved these applications in Opinion 1962 (BZN 57: 193–195, September 2000) and Opinion 1984 (BZN 58: 245–246, September 2001) respectively. The generic names have been included in the new edition of *Mammal Species of the World*, although the compilers of the group which includes *Holochilus* state that they have followed the application, apparently unaware of the definitive Commission ruling.

Other applications sought to ratify the current spelling of a name by amending the originally published name. These included Case 3018 (BZN 56: 262–265, December 1999) for the deer name *Mazama gouazoubira* (Fischer, 1814), Case 3033 (BZN 57: 36–38, March 2000) for the rodent name *Glirulus japonicus* (Schinz, 1845), and Case 3004 (BZN 55: 165–168, September 1998 and 57: 228–231, December 2000) for the primate family-group names LORISIDAE Gray, 1821, GALAGIDAE Gray, 1825 and INDRIIDAE Burnett, 1828. These applications were approved in Opinion 1985 (BZN 58: 247, September 2001), Opinion 1978 (BZN 58: 159–160, June 2001) and Opinion 1995 (BZN 59: 65–67, March 2002) respectively; the corrected spellings have been incorporated in the new checklist.

A number of applications sought to stabilise the usage of names by a ruling on their authorship and date. These included Case 3022 (BZN 58: 41–52, March 2001) for the publication *Catalogue des mammifères du Muséum National d'Histoire Naturelle* by É. Geoffroy Saint-Hilaire (1803) which included the mole name *Scalopus* and 22 specific names in several orders; Case 3178 (BZN 58: 126–132, June 2001) for the artiodactyl generic and family-group names *Hippotragus* and HIPPOTRAGINAE published by Sundevall (1845); and Case 2928 (BZN 51: 135–146, June 1994) for the generic names *Philander* (marsupial), *Pteropus* (bat), *Glis*, *Cuniculus* and *Hydrochoerus* (rodents), *Meles*, *Lutra* and *Hyaena* (carnivores), *Tapirus* (perissodactyl), *Tragulus* and *Giraffa* (artiodactyls) published by Brisson (1762). The Commission took action in Opinion 2005 (BZN 59: 153–154, June 2002), Opinion 2030 (BZN 60: 90–91, March 2003) and Opinion 1894 (BZN 55: 64–71, March 1998); the new edition of *Mammal Species of the World* now lists all the names with the appropriate authorship and date. The ruling on Brisson's (1762) names has been welcomed by some contributors but not by others. The entry for *Cuniculus* records 'The generic name of this taxon has been debated . . . , but the nomenclatural instability of this genus was resolved by the ruling by the International Commission on Zoological Nomenclature (1998) for the conservation of *Cuniculus* Brisson, 1762'. The entry for GLIRIDAE, however, notes 'the unfortunate ruling by the International Commission on Zoological Nomenclature (1998) to conserve *Glis* Brisson' and thereby ignores all the usage of the name and the support received, particularly from Europe-based zoologists (a full discussion on the usage of *Glis* was given in BZN 52: 90–91, March 1995). The long discussion on the identity and use of the name *Tragulus* by authors subsequent to Brisson (1762) is mostly irrelevant.

Two applications, both related to bats, sought to ratify the majority usage of an earlier specific name where there were taxonomic difficulties. Case 3073 (BZN 56: 182–186, September 1999) proposed to establish *Pipistrellus pygmaeus* (Leach, 1825) as the name for a cryptic species confused with *P. pipistrellus* (Schreber, 1774) until 1993. The Commission approved the application in Opinion 2028 (BZN 60: 85–87,

March 2003) and, in *Mammal Species of the World*, *P. mediterraneus* Cabrera, 1904, the name preferred to *P. pygmaeus* by some workers, is listed among the synonyms. Case 3095 (BZN 56: 250–254, December 1999) proposed confirmation of the majority usage of *Mystacina tuberculata* Gray, 1843 and *Chalinobus tuberculatus* (J.R. Forster, 1844). The Commission approved this application in Opinion 1994 (BZN 59: 63–64, March 2002) and in *Mammal Species of the World* both names have been adopted with *M. velutina* Hutton, 1872, the name preferred by a few workers in place of *M. tuberculata*, listed as a synonym.

For many domesticated animals, especially artiodactyls, separate names exist for a wild species and its supposed domestic derivative. Very often the 'domestic' name predates the 'wild' one and, although a majority of writers have preferred to use the 'wild' name for the wild species, there has been some confusion about the application of names and the significance to be read into one usage rather than another. In Case 3010 (BZN 53: 28–37, March 1996) Juliet Clutton-Brock, Colin Groves and I proposed that, where there were traditionally separate names for a wild species and its domestic derivative, the majority usage for the wild species of the first available name based on a wild population should be stabilised. This affected 15 mammals and in these the name of the domesticate had been established by Linnaeus (1758, 1766) and a few other authors and was earlier or contemporary with the name of the wild ancestor. The name for the domesticate had been applied by a few authors to the wild species, thereby increasing the confusion mentioned above.

Over the next six years our application received 28 out of 33 comments and five brief notes in favour of the proposals with considerable support from workers in zoology, archaeozoology, palaeontology, conservation, ecology, ethology and endangered species management. A few commentators were not in favour but this seemed to be because they had misunderstood the intention of the application: they assumed either that earlier names based on domestic forms were going to be discarded or that two alternative names would be adopted as valid for the wild species. We explained in published replies that neither assumption was correct.

In March 2003 the Commission approved the proposals (Opinion 2027, BZN 60: 81–84) and 15 names for wild mammal progenitor species were fixed as those based on wild populations. Names based on domestic forms can now only refer to domesticates.

Despite Opinion 2027 the minority and now incorrect treatment of the names for wild and domestic forms in *Mammal Species of the World* has remained unaltered from the 1993 edition. In the chapters on the Perissodactyla and the Artiodactyla, compiled by Peter Grubb, names based on domestic forms have actually been used for wild species. Thus the Linnaean names *Equus asinus* and *E. caballus*, based on domestic forms, are used for both the wild and domestic ass and the horse respectively with the wild species' names *E. africanus* Heuglin & Fitzinger, 1866 and *E. ferus* Boddaert, 1785 cited as synonyms. Similarly, *Bos taurus* Linnaeus, 1758, based on domestic cattle, is used for the extinct wild aurochs in preference to the almost universally used *B. primigenius* Bojanus, 1827. The Linnaean names *Ovis aries* and *Capra hircus* are still given as the wild progenitors of sheep and goats, which usually appear as *O. orientalis* Gmelin, 1774 and *C. aegagrus* Erxleben, 1777. This erroneous nomenclature has not been followed in other chapters: in the Carnivora *Felis catus* Linnaeus, 1758, the domestic cat, is treated as distinct from *F. silvestris*

Schreber, 1777, the wild cat, and in the Rodentia *Cavia porcellus* Linnaeus, 1758 is restricted to the domestic form of the guinea pig.

In using the Linnaean names *Equus asinus*, *E. caballus*, *Camelus bactrianus* (domestic Bactrian camel), *Bos bubalis* (domestic water buffalo) and *B. grunniens* (domestic yak) for wild species, Grubb notes the Commission ruling and states that it has not been demonstrated that most authors have used the names based on wild taxa for the species. On the contrary, the application (para. 7) cited 15 recent reference works in which the names based on wild populations have been used for the wild species, and noted that there were numerous publications in all fields which had adopted them. Moreover, many published comments supported our proposals, as noted above.

In adopting the names *Equus asinus* and *E. caballus*, Grubb states that Opinion 2027 did not explicitly specify which name was to be assigned to the whole species by those who consider wild and domestic populations to be conspecific. Again, in adopting the names *Camelus bactrianus*, *Bos frontalis* (domestic gaur), *B. bubalis*, *B. grunniens*, *Ovis aries* and *Capra aegagrus*, Grubb states that it might still be valid for those who consider the wild and domestic forms to be conspecific to employ the senior (domestic) name for the name of the species. In support of his statements Grubb cites a 1997 comment by Walter Bock, six years before the Opinion was published. It has to be pointed out that my colleagues and I replied to Bock in the same issue of the *Bulletin* (BZN 54(2), June 1997) and then published two further comments (BZN 58: 233–234, September 2001 and 59: 48–50, March 2002). We set out the situation in the usage of names for wild species with domestic derivatives, how this might be seen to differ from a strict interpretation of the Code, and the consequences that would result from Commission approval of the proposals. Our intentions regarding the names for wild and domestic forms, both when treated as separate species (two names) and when included in one species (one name), were stated in all three comments, and in both the second and third comments we made clear that ‘Approval of our proposals by the Commission will merely ratify the current nomenclatural situation: names based on wild populations will continue to be used for wild species and will include those for domestic forms if these are considered conspecific’. Similar comments were made by Corbet (BZN 53: 193), Kitchener (BZN 53: 194) and Uerpmann (BZN 58: 231). Following all this, the outcome was that Opinion 2027 does state explicitly (BZN 60: 83): ‘The names listed [pp. 81–82] in the ruling above, which are the first available names in use based on wild populations, apply to wild species and include those for their domestic derivatives if these are not distinguishable’.

Grubb himself has admitted that *Ovis aries* and *Bos frontalis*, the names for domestic sheep and domestic gaur, have not been used for wild species and, more seriously, that all wild taxa recorded as endangered in IUCN (2003) and CITES (2004) publications have been listed under the names for the wild ancestral species.

Another consideration reveals an unappreciated benefit of the Commission ruling which will eliminate much future confusion. Following publication of Opinion 2027, Gentry, Clutton-Brock & Groves (2004) set out the history and consequences of the ruling. We noted, citing recent papers, that genetic analyses have demonstrated that there are two or more lineages in several domestic animals (including cattle, water buffalo, sheep, goat, pig, horse, llama and alpaca) derived from two or more wild

ancestral species or subspecies from different geographical areas. There is also genetic evidence of hybridisation of domestic animals with wild species and other domestic forms during domestication. Still more recent publications (Dobney & Larson, 2006, and cited references; Zeder, Bradley, Emshwiller & Smith, 2006) have shown that the history of domestication is considerably more complex than originally thought and that the majority of modern domestic animals have multiple ancestors, often in different species. This makes it unsafe to assume a one-to-one equivalence between domesticates and single ancestors and to give it a formal expression in their names.

Under Article 17.2 of the Code the availability of specific names for animals is not affected by hybrid origins, so Gentry et al. (2004) acted legitimately in recommending that names based on domestic forms be adopted for the domestic derivatives. Under Article 23.8, however, a specific name for an animal later found to be hybrid must not be used as the valid name for either, or any, of the parental species even if it is older than all other available names for them. In adopting names based on hybrid domestic animals for wild progenitor species Grubb has ignored this Article of the Code.

To my knowledge the Code and Commission rulings have not hitherto been flouted on such a large scale and on such unsafe grounds. Applications submitted to the Commission to resolve nomenclatural difficulties are made on behalf of the zoological community as a whole. Publication of cases in the BZN and on the ICZN website includes an invitation to zoologists to comment or make alternative suggestions, and a two-thirds majority of those Commissioners voting is needed for approval of proposals. Decisions of the Commission are thus arrived at democratically and, in the interests of universality, clarity and stability, need to be followed.

References

- Dobney, K. & Larson, G.** 2006. Genetics and animal domestication: new windows on an elusive process. *Journal of Zoology*, **269**: 261–271.
- Gentry, A., Clutton-Brock, J. & Groves, C.P.** 2004. The naming of wild animal species and their domestic derivatives. *Journal of Archaeological Science*, **31**: 645–651.
- Zeder, M.A., Bradley, D.G., Emshwiller, E. & Smith, B.D.** (Eds.). 2006. *Documenting domestication: new genetic and archaeological paradigms*. 375 pp., 40 illustrations, 120 figs. University of California Press, Berkeley.

INFORMATION AND INSTRUCTIONS FOR AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Applications should be prepared in the format of recent parts of the Bulletin; manuscripts not prepared in accordance with these guidelines may be returned.

General. Applications are requests to the Commission to set aside or modify the Code's provisions as they relate to a particular name or group of names when this appears to be in the interest of stability of nomenclature. Authors submitting cases should regard themselves as acting on behalf of the zoological community and the Commission will treat all applications on this basis. Applicants should discuss their cases with other workers in the same field before submitting applications, so that they are aware of any wider implications and the likely reactions of other zoologists.

Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals to the Commission. Text references should give dates and pages in parentheses, e.g. 'Daudin (1800, p. 49) described ...'. The Abstract will be prepared by the Commission's Secretariat.

References. These should be given for all authors cited. Where possible, ten or more reasonably recent references should be given illustrating the usage of names which are to be conserved or given precedence over older names. The title of periodicals should be in full and in italics; numbers of volumes, parts, etc. should be in arabic figures, separated by a colon from page numbers. Book titles should be in italics and followed by the number of pages and plates, the publisher and place of publication. More detailed instructions on the preparation of references are given in BZN **59**: 159–160.

Submission of Application. One copy should be sent to: Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in IBM PC compatible format, or the script sent via e-mail to 'iczn@nhm.ac.uk' within the message or as an attachment (disks and attachments to be in Word, rtf or ASCII text).

Applications should be accompanied by photocopies of relevant pages of the main references if at all possible.

The Commission's Secretariat is very willing to advise on all aspects of the formulation of an application.

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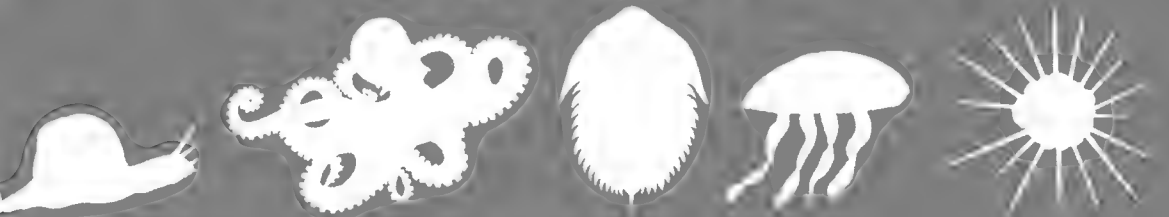
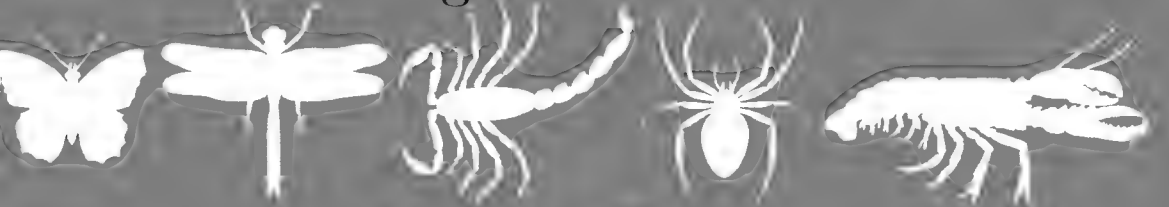
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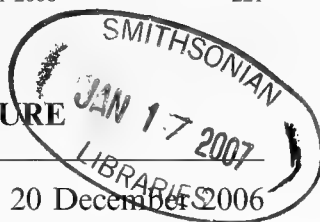
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BULLETIN OF ZOOLOGICAL NOMENCLATURE

Volume 63, part 4 (pp. 221–296)

20 December 2006

**Notices**

(1) Applications and correspondence relating to applications to the Commission should be sent to the Executive Secretary at the address given on the inside of the front cover and on the Commission website. English is the official language of the *Bulletin*. Please take careful note of instructions to authors (present in a one or two page form in each volume) as incorrectly formatted applications will be returned to authors for revision. The Commission's Secretariat will answer general nomenclatural (as opposed to purely taxonomic) enquiries and assist with the formulation of applications. As far as it can, the Secretariat will check the main nomenclatural references in applications. Correspondence should be by e-mail to 'iczn@nhm.ac.uk' where possible.

(2) The Commission votes on applications eight months after they have been published, although this period is normally extended to enable comments to be submitted. Comments for publication relating to applications (either in support or against, or offering alternative solutions) should be submitted as soon as possible. Comments may be edited.

(3) Requests for help and advice on the Code can be made direct to the Commission and other interested parties via the Internet. Membership of the Commission's Discussion List is free of charge. You can subscribe and find out more about the list at <http://list.afriherp.org/mailman/listinfo/iczn-list>.

(4) The Commission also welcomes the submission of general-interest articles on nomenclatural themes or nomenclatural notes on particular issues. These may deal with taxonomy, but should be mainly nomenclatural in content. Articles and notes should be sent to the Executive Secretary.

New applications to the Commission

The following new applications have been received since the last issue of the *Bulletin* (volume 63, part 3, 30 September 2006) went to press. Under Article 82 of the Code, the existing usage of names in the applications is to be maintained until the Commission's rulings on the applications (the Opinions) have been published.

CASE 3395: *Geophilus linearis* C.L. Koch, 1835 and *Geophilus sorrentinus* Attems, 1903 (currently *Stenotaenia linearis* and *S. sorrentina*; Chilopoda): proposed conservation of the specific names. L. Bonato & A. Minelli.

CASE 3396: *Conus jaspideus* Gmelin, 1791 (Mollusca, Gastropoda): proposed conservation of the specific name by designation of a neotype. A.J. Kohn & D.L.N. Vink.

CASE 3397: *Neoromicia* Roberts, 1926 (Mammalia, VESPERTILIONIDAE): proposed correction of gender. M. Riccucci & B. Lanza.

Election of members of the International Commission on Zoological Nomenclature

The following have been elected as members of the Commission:

Dr NINA G. BOGUTSKAYA (*Zoological Institute of the Russian Academy of Sciences, Universitetskaya emb. 1, 199034 St. Petersburg, Russia*). Dr Bogutskaya's research is mainly on cypriniform fishes (Teleostei: Cyprinidae) and addresses their morphology, taxonomy, and phylogenetic relationships. She also has expertise on freshwater fishes generally, particularly those of Eurasian river basins.

Prof DAPHNE G. FAUTIN (*KU Natural History Museum, and Department of Ecology and Evolutionary Biology, 1200 Sunnyside Drive, Lawrence, Kansas 66045, U.S.A.*). Prof Fautin's research focuses on sea anemones (Actiniaria), including their reproduction, taxonomy and phylogeny. She is currently developing a database for the taxonomy and biogeography of hexacorals.

Dr MARK J. GRYGIER (*Lake Biwa Museum, Oroshimo 1091, Kusatsu, Shiga 525-0001, Japan*). Dr Grygier is an authority on the parasitic crustacean Ascot-horacida, as well as other Crustacea including certain isopods, copepods and barnacles, and the annelid group Myzostomida.

Dr MAURICE KOTTELAT (*Route de la Baroche 12, Case postale 57, CH-2952 Cornol, Switzerland*). Dr Kottelat is a specialist on freshwater fishes, especially as indicators of threatened ecosystems. He is currently President of the European Ichthyological Society.

Dr FRANK-THORSTEN KRELL (*Head, Coleoptera Division, Department of Entomology, Natural History Museum, Cromwell Road, London SW7 5BD, U.K.*). Dr Krell specialises on the taxonomy, systematics, diversity and palaeontology of scarab beetles.

Dr SVEN O. KULLANDER (*Department of Vertebrate Zoology, Swedish Museum of Natural History, POB 50007, SE-104 05 Stockholm, Sweden*). Dr Kullander works on the taxonomy and systematics of a wide variety of fishes, and is the world authority on Neotropical cichlids.

Prof LEE-HONG SUSAN LIM (*Institute of Biological Sciences, University of Malaya, 50603 Kuala Lumpur, Malaysia*). Prof Lim is a specialist on monogenean platyhelminth parasites and hyperparasites, particularly those affecting both marine and freshwater fishes.

Dr THOMAS PAPE (*Natural History Museum of Denmark, Universitetsparken 15, DK-2100, Copenhagen, Denmark*). Dr Pape's research is primarily focused on taxonomy, systematics, phylogeny and evolution of Diptera with special emphasis

on the Tachinidae family-group (Calliphoridae, Oestridae, Rhinophoridae, Sarcophagidae, Tachinidae). He is also a collaborator on the Biosystematic Database of World Diptera.

Dr RICHARD PYLE (*Department of Natural Sciences, Bishop Museum, 1525 Bernice St., Honolulu, HI 96817 Hawaii, U.S.A.*). Dr Pyle's main specialism is the taxonomy and biogeography of coral-reef fishes. Other areas of expertise include the use of advanced diving technology to study biodiversity in deep tropical coral reefs, and database systems for managing biodiversity information.

Dr ZHI-QIANG ZHANG (*Landcare Research, Private Bag 92170, Auckland, New Zealand*). Dr Zhang conducts research on the systematics, diversity and ecology of the Acari, resulting in over 150 publications. He is also both editor and founder of the journal *Zootaxa*.

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

Financial Report for the year 2005

The main work of the Commission during the year was on applications from zoologists in 14 countries to resolve problems of zoological nomenclature. These were published in the *Bulletin of Zoological Nomenclature*, together with Opinions (rulings) made by the Commission on other cases. Further applications were under consideration. Advice was given by the Commission's Secretariat in response to a large number of enquiries on matters of nomenclature from zoologists worldwide.

Dr Simon Coppard was appointed during the year as Development Officer supported by the Wellcome Trust. His role has been particularly to improve the Commission Website and to assist with the development of ZooBank—the online open-access register for animal names and nomenclatural acts in zoology.

Extra salary costs incurred by the Commission's Secretariat during 2005, partially through the essential hiring on a part-time basis of Dr Svetlana Nikolaeva, contributed towards a deficit of £9,510 for the year. This deficit should be viewed in the light of the surplus of £24,533 obtained in 2004, during the main initial period of the Appeal.

Total income received by the Trust consisted of £32,624 for all publications produced by the Commission, £43,130 from Appeal and general donations, and £9,213 in bank interest and investment income, bringing the total income for the year to £84,967.

Expenditure in 2005 was £81,609 on salaries and fees of the Secretariat of the Commission, £2,431 on the Appeal (excluding salaries), £8,266 for printing the *Bulletin of Zoological Nomenclature* and for the distribution of all publications, and £2,171 for office expenses, bringing the total expenditure to £94,477.

The Secretariat of the Commission continued to be housed in the Natural History Museum, London, whom we thank for their support. The Trust wishes to express its thanks to all the donors listed below who have contributed to the continuation of its work during the year for the international zoological and palaeontological community.

Donations were received from:

- American Association for Zoological Nomenclature
- American Society of Parasitologists
- Ancaster Trust
- Dr P. Ashmole
- Australian Society of Parasitologists
- Canadian Society of Zoologists
- Lord Cranbrook
- Entomological Society of Canada
- Gatsby Charitable Foundation
- Dr D.L. Harrison
- Japanese Society of Systematic Zoology
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Malacological Society of London
 Marine Biological Association, U.K.
 Royal Danish Academy of Sciences and Letters
 Royal Entomological Society of London
 Royal Society of London
 Dr J. Taverne
 Dr F.C. Thompson
 Zoological Society of London

P.L. Forey, Secretary and Managing Director
 M.K. Howarth, former Secretary and Managing Director

INTERNATIONAL TRUST FOR ZOOLOGICAL NOMENCLATURE

INCOME AND EXPENDITURE ACCOUNT FOR THE YEAR ENDED 31 DECEMBER 2005

Income		
SALE OF PUBLICATIONS		
Bulletin of Zoological Nomenclature	£27,218	
International Code of Zoological Nomenclature	4,326	
Official Lists and Indexes	922	
Centenary History	158	
	<hr/>	
	32,624	
APPEAL FUND, GRANTS AND DONATIONS		43,130
INTEREST RECEIVED		1,168
INVESTMENT INCOME		8,045
		<hr/>
		84,967
Expenditure		
SALARIES, NATIONAL INSURANCE AND FEES		81,609
OFFICE EXPENSES		1,388
PRINTING OF BULLETIN AND DISTRIBUTION OF PUBLICATIONS		8,266
PRINTING OF APPEAL BROCHURES		2,431
DEPRECIATION OF OFFICE EQUIPMENT		783
		<hr/>
		94,477
DEFICIT FOR THE YEAR CARRIED TO BALANCE SHEET	£ 9,510	

Case 3353***Obovaria* Rafinesque, 1819 (Mollusca, Bivalvia): proposed conservation of usage by designation of *Unio retusa* Lamarck, 1819 as the type species of *Obovaria***

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Abstract. The purpose of this application, under Article 70.2 of the Code, is to conserve the current usage of the widely used name *Obovaria* Rafinesque, 1819 (freshwater bivalve from the eastern United States) by the designation of *Unio retusa* Lamarck, 1819 as the type species of *Obovaria*. The type species of *Obovaria* is at present *Obovaria obovalis* Rafinesque, 1820, which is an unused senior subjective synonym of *Unio ebenus* Lea, 1831 (currently *Fusconaia ebena*). The designation of *Obovaria obovalis* as the type species by Herrmannsen (1847) has never been adopted, and in current usage *Unio retusa* Lamarck, 1819 has universally been accepted as the type species of *Obovaria*. It is proposed that *Obovaria obovalis* Rafinesque, 1820 be suppressed.

Keywords. Nomenclature; taxonomy; Bivalvia; UNIONIDAE; *Obovaria*; *Fusconaia*; *Obovaria obovalis*; *Obovaria retusa*; *Obovaria torsa*; *Fusconaia ebena*; eastern United States; freshwater mussel.

1. Rafinesque (1819, p. 426) established the genus *Obovaria* for a freshwater bivalve and listed six species names (*O. obovalis*, *O. subrotunda*, *O. syntoxis*, *O. retusa*, *O. crassa* and *O. torsa*), all now considered nomina nuda. Rafinesque (1820, p. 311) described the genus *Obovaria* and included six described species: *O. obovalis* (p. 311), *O. torsa* (p. 311), *O. pachostea*, *O. striata*, *O. stegaria* and *O. cordata*, but did not designate a type species.

2. Herrmannsen (1847, p. 132) designated *Obovaria obovalis* Rafinesque, 1820 as the type species for the genus *Obovaria*.

3. *Obovaria obovalis* Rafinesque, 1820, considered as a nomen dubium from 1836 to 2006 by most authors (e.g. Lea, 1836, 1838, 1852, 1870; Simpson, 1900, 1914;

Burch, 1975), is a senior subjective synonym of *Unio ebenus* Lea, 1831 (p. 84). This synonymy was established by Vanatta (1915, p. 558), who listed and identified the Rafinesque specimens from the Poulson Collection housed in the Mollusk Collection of the Academy of Natural Sciences of Philadelphia. We have not found any usage of *Obovaria obovalis* as a valid name in the literature since the time it was designated the type species of *Obovaria* by Herrmannsen (1847). Vanatta (1915) clearly stated that he was not using the Rafinesque names, including *Obovaria obovalis*, as valid. Ortmann & Walker (1922, p. 44) stated that the species *O. obovalis* could not be recognized, but cited Vanatta (1915) as having recognized the so-called Rafinesque-Poulson type as *Unio ebenus* Lea, 1831. Frierson (1927), Haas (1969a) and Parmalee & Bogan (1998) erroneously listed *O. obovalis* as a junior synonym of *Obovaria pachostea* Rafinesque, 1820 and *Amblema antrosa* Rafinesque, 1820, which are presumed senior synonyms of *Unio ebenus* Lea, 1831. Johnson & Baker (1973, p. 163, pl. 4, fig. 1) designated a lectotype for *O. obovalis*, but this was done as a matter of curatorial routine and there is no evidence that Johnson & Baker intended to use the name *O. obovalis* as valid. The name *Unio obovalis* Rafinesque, 1820 was mentioned by Haas (1969a) as the type species of the nominal subgenus *Obovaria* but it is likely that he did not intend to use *Unio obovalis* Rafinesque, 1820 as valid.

4. We argue that stability is best served by continuing the long-established use of *Unio ebenus* Lea, 1831 (currently *Fusconaia ebena*) for a species that was originally named *Obovaria obovalis* by Rafinesque (1820). *Unio ebenus* has been used extensively in unionid literature for the past 170 years (e.g. Lea, 1836, 1838, 1852, 1870; Simpson, 1900, 1914; Haas, 1969a, b). It is not very certain whether the historic use of *Obovaria obovalis* meets Article 23.9.1.1 of the Code (Names not used as valid after 1899), because according to our records the name was used twice after 1899, although possibly not as valid. We choose to maintain the current use of *Fusconaia ebena* and, according to Article 23.9.2 of the Code (Prevailing usage), to use *U. ebenus* Lea, 1831 (nomen protectum) over *Obovaria obovalis* Rafinesque, 1820 (nomen oblitum). Considering that there is some uncertainty about the valid use of the name *Obovaria obovalis* Rafinesque, 1820 after 1899, we propose to formally suppress it.

5. Agassiz (1852, p. 46) selected *Obovaria torsa* Rafinesque, 1820 (a junior subjective synonym of *Unio retusa* Lamarck, 1819) as the type species of *Obovaria*. However, he was not very clear as to his preference between the names *Unio retusa* Lamarck, 1819 and *Obovaria torsa* Rafinesque, 1820. Although *Obovaria torsa* was among species originally included in *Obovaria* by Rafinesque (1820), this was not a valid subsequent type species designation (Article 69.1—Type species by subsequent designation) because it was preceded by a valid type species designation by Herrmannsen (1847), to which Agassiz (1852) made no reference. However, Agassiz's designation has become accepted and widely used in the literature. Fischer (1886) used *Obovaria* with the type species *Unio retusa* Lamarck, 1819 but made no mention of the designation of the type species of *Obovaria* by Agassiz (1852). Even in the absence of the earlier valid designation of the type species by Herrmannsen (1847) and a later designation by Agassiz (1852), this would be an invalid type species designation as *U. retusa* Lamarck, 1819 was not a name originally included in *Obovaria*, and no indication was made about the synonymy between *U. retusa* Lamarck and *Obovaria torsa* Rafinesque, 1820 (Article 69.2.2 of the Code—Type species not originally included in a genus). Simpson (1900, p. 599) was unsure about

the synonymy of *Obovaria torsa* Rafinesque, 1820 but listed the type species of *Obovaria* as *Unio retusa* Lamarck, 1819 and made no mention of the type species designations by Herrmannsen (1847), Agassiz (1852), or Fischer (1886). Ortmann (1912) followed Simpson (1900) by using *retusa* as the type species and provided detailed anatomical treatment of the species included in *Obovaria*. Simpson (1914) listed *U. retusa* Lamarck, 1819 as the type species of *Obovaria* and cited Ortmann (1912) but made no reference to Herrmannsen (1847), Agassiz (1852), or Fischer (1886). Haas (1969a, pp. 419, 420) recorded *Unio retusa* Lamarck, 1819 as the type species of the genus *Obovaria*, but gave *Unio obovalis* Rafinesque, 1820 as the type species of the nominal subgenus *Obovaria* (violation of Article 67.1.1 of the Code—A nominal genus and its nominotypical subgenus must have the same type species). Numerous authors have used *Obovaria* with the type species *U. retusa* since Simpson (1900), including Walker, 1918a, b; Frierson, 1927; Baker, 1928; Clench, 1959; Parmalee, 1967; Burch, 1973, 1975; Parmalee et al., 1980, 1982; Turgeon et al., 1988, 1998; Vaught, 1989; Ahlstedt, 1992; Haag & Warren, 1995; Hoggarth, 1999; Hughes & Parmalee, 1999; Millard, 2001 and others. The acceptance of *Obovaria obovalis* Rafinesque, 1820 as the type species of *Obovaria*, although in strict conformity with Article 67.2 of the Code (Species eligible for type fixation), would cause widespread confusion in the nomenclature since *Obovaria obovalis* Rafinesque, 1820 is an unused senior subjective synonym of *Unio ebenus* Lea, 1831 (currently *Fusconaia ebena*) and currently belongs to the genus *Fusconaia*. Species of *Obovaria* in the modern usage of this genus are included in major checklists and catalogues, such as the Federal Endangered Species List of the United States. Two standardized lists of the Mollusca of North America have used *Obovaria* in its modern sense (Turgeon et al., 1988, 1998), and McMahan & Bogan (2001) used *Obovaria* in this sense in an overview of the biology of the family. A list of a further 39 papers is held by the Commission Secretariat. We propose that *Unio retusa* Lamarck, 1819 (currently *Obovaria retusa*) (a senior subjective synonym of *Obovaria torsa* Rafinesque, 1820) is designated as the type species of *Obovaria*.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous fixations of type species for the nominal genus *Obovaria* Rafinesque, 1819 and to designate *Unio retusa* Lamarck, 1819 as the type species;
- (2) to rule that the name *obovalis*, as published in the binomen *Obovaria obovalis* Rafinesque, 1820, is a nomen oblitum;
- (3) to place on the Official List of Generic Names in Zoology the name *Obovaria* Rafinesque, 1819 (gender: feminine), type species *Unio retusa* Lamarck, 1819, as ruled in (1) above;
- (4) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *retusa* Lamarck, 1819, as published in the binomen *Unio retusa* (specific name of the type species of *Obovaria* Rafinesque, 1819, as ruled in (1) above);
 - (b) *ebenus* Lea, 1831, as published in the binomen *Unio ebenus*;
- (5) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *obovalis* Rafinesque, 1820, as published in the binomen *Obovaria obovalis* (ruled in (2) above to be a nomen oblitum).

References

- Agassiz, L.** 1852. Ueber die Gattungen unter den nordamerikanischen Najaden. *Archiv für Naturgeschichte*, **18**(1): 41–52.
- Ahlstedt, S.A.** 1992. Twentieth century changes in the freshwater mussel fauna of the Clinch River (Tennessee and Virginia). *Walkerana*, **5**(13): 73–122.
- Baker, F.C.** 1928. The fresh water Mollusca of Wisconsin. Part II. Pelecypoda. *Bulletin of the Wisconsin Geological and Natural History Survey. University of Wisconsin*, **70**(2): i-vi, 1–495.
- Burch, J.B.** 1973. Freshwater Unionacean clams (Mollusca: Pelecypoda) of North America. *Biota of Freshwater Ecosystems. Identification Manual for U.S. Environmental Protection Agency*, **11**: 1–176.
- Burch, J.B.** 1975. *Freshwater Unionacean clams (Mollusca: Pelecypoda) of North America*. 204 pp. Malacological Publications, Hamburg, Michigan.
- Clench, W.J.** 1959. Mollusca. Pp. 1117–1160 in Edmondson, W.T. (Ed.), *Freshwater biology*. Ed. 2. John Wiley and Sons, New York.
- Fischer, P.** 1880–1887. *Manuel de Conchyliologie et de Paléontologie conchyliologique ou Histoire Naturelle des Mollusques vivants et fossiles*. 369 pp. Librairie F. Savy, Paris.
- Frierson, L.S.** 1927. *A classified and annotated checklist of the North American naiades*. 111 pp. Baylor University Press, Waco, Texas.
- Haag, W.R. & Warren, M.L., Jr.** 1995. Current distributional information on freshwater mussels (Family Unionidae) in Mississippi National Forests. *United States Forest Service, Southern Forest Experiment Station, General Technical Report*, **SO-110**: 1–10.
- Haas, F.** 1969a. Superfamilia Unionacea. *Das Tierreich*, **88**: i-x, 1–663.
- Haas, F.** 1969b. Superfamilia Unionacea. Pp. N411–N470 in Moore, R.C. (Ed.), *Treatise on Invertebrate Paleontology*, Part N, Vol. 1, Mollusca. Geological Society of America and the University of Kansas, Lawrence, Kansas.
- Herrmannsen, A.N.** 1847. *Indicis Generum Malacozoorum*, vol. 1. 5, 140 pp. Cassellis, London.
- Hoggarth, M.A.** 1999. Description of some of the glochidia of the Unionidae (Mollusca: Bivalvia). *Malacologia*, **41**(1): 1–118.
- Hughes, M.H. & Parmalee, P.W.** 1999. Prehistoric and modern freshwater mussel (Mollusca: Bivalvia: Unionoidea) faunas of the Tennessee River: Alabama, Kentucky, and Tennessee. *Regulated Rivers Research and Management*, **15**: 25–42.
- Johnson, R.I. & Baker, H.B.** 1973. The types of Unionacea (Mollusca: Bivalvia) in the Academy of Natural Sciences of Philadelphia. *Proceedings of the Academy of Natural Sciences of Philadelphia*, **125**(9): 145–186.
- Lamarck, J.B.P.A.** 1819. *Histoire naturelle des Animaux sans Vertèbres*, vol. 6, part 1, Les Nâyades. Pp. 67–100. Verdrière, Paris.
- Lea, I.** 1831. Observations on the naiades, and descriptions of new species of that and other families. *Transactions of the American Philosophical Society, New Series*, **4**: 63–121.
- Lea, I.** 1836. *A synopsis of the family of naiades*. 59 pp., 1 pl. Carey, Lea & Blanchard, Philadelphia.
- Lea, I.** 1838. *A synopsis of the family of naiades*, Ed. 2. 44 pp. Carey, Lea & Blanchard, Philadelphia.
- Lea, I.** 1852. *A synopsis of the family of naiades*, Ed. 3. Pp. i-xx, 17–88. Blanchard & Lea, Philadelphia.
- Lea, I.** 1870. *A synopsis of the family Unionidae*. Ed. 4. 30, 184 pp. Henry C. Lea, Philadelphia, Pennsylvania.
- McMahon, R.F. & Bogan, A.E.** 2001. Mollusca: Bivalvia. Pp. 331–429 in Thorpe, J.H. & Covich, A.P. *Ecology and classification of North American freshwater invertebrates*. Ed. 2. Academic Press.
- Millard, V.** 2001. *Classification of Mollusca. A classification of worldwide Mollusca*. Ed. 3, vol. 2. 1447 pp. V. Millard, Rhine Road, South Africa.
- Ortmann, A.E.** 1912. Notes upon the families and genera of the najades. *Annals of the Carnegie Museum*, **8**(2): 222–365.
- Ortmann, A.E. & Walker, B.** 1922. On the nomenclature of certain North American naiades. *Occasional Papers of the Museum of Zoology, University of Michigan*, **112**: 1–75.

- Parmalee, P.W.** 1967. The fresh-water mussels of Illinois. *Illinois State Museum Popular Science Series*, **8**: 1–108.
- Parmalee, P.W. & Bogan, A.E.** 1998. *The Freshwater Mussels of Tennessee*. 328 pp. The University of Tennessee Press, Knoxville, Tennessee.
- Parmalee, P.W., Klippel, W.E. & Bogan, A.E.** 1980. Notes on the prehistoric and present status of the naiad fauna of the middle Cumberland River, Smith County, Tennessee. *The Nautilus*, **94**(3): 93–105.
- Parmalee, P.W., Klippel, W.E. & Bogan, A.E.** 1982. Aboriginal and modern freshwater mussel assemblages (Pelecypoda: Unionidae) from the Chickamauga Reservoir, Tennessee. *Brimleyana*, **8**: 75–90.
- Rafinesque, C.S.** 1819. Prodrome de 70 nouveaux Genres d'Animaux découverts dans l'intérieur des États-Unis d'Amérique, durant l'année 1818. *Journal de Physique, de Chimie, d'Histoire Naturelle et des Arts*, **88**: 417–429.
- Rafinesque, C.S.** 1820. Monographie des coquilles bivalves fluviatiles de la Rivière Ohio, contenant douze genres et soixante-huit espèces. *Annales générales des sciences Physiques, à Bruxelles*, **5**(5): 287–322.
- Simpson, C.T.** 1900. Synopsis of the naiades, or pearly fresh-water mussels. *Proceedings of the United States National Museum*, **22**(1205): 501–1044.
- Simpson, C.T.** 1914. *A descriptive catalogue of the naiades, or pearly fresh-water mussels*. Parts I–III. 12, 1540 pp. Bryant Walker, Detroit, Michigan.
- Turgeon, D.D., Bogan, A.E., Coan, E.V., Emerson, W.K., Lyons, W.G., Pratt, W.L., Roper, C.F.E., Scheltema, A., Thompson, F.G. & Williams, J.D.** 1988. Common and scientific names of aquatic invertebrates from the United States and Canada: Mollusks. *American Fisheries Society, Special Publication*, **16**: 1–8, 1–277.
- Turgeon, D.D., Quinn, J.F., Jr., Bogan, A.E., Coan, E.V., Hochberg, F.G., Lyons, W.G., Mikkelsen, P., Neves, R.J., Roper, C.F.E., Rosenberg, G., Roth, B., Scheltema, A., Sweeney, M.J., Thompson, F.G., Vecchione, M. & Williams, J.D.** 1998. Common and scientific names of aquatic invertebrates from the United States and Canada: Mollusks. Second Edition. *American Fisheries Society, Special Publication*, **26**: 1–536 [Also on CD-ROM].
- Vanatta, E.G.** 1915. Rafinesque's types of *Unio*. *Proceedings of the Academy of Natural Sciences of Philadelphia*, **67**(1915): 549–559.
- Vaught, K.C.** 1989. *A classification of the living Mollusca*. 195 pp. American Malacologists, Melbourne, Florida.
- Walker, B.** 1918a. A synopsis of the classification of the freshwater Mollusca of North America, North of Mexico, and a catalogue of the more recently described species, with notes. *Miscellaneous Publications, Museum of Zoology, University of Michigan*, **6**: 1–213.
- Walker, B.** 1918b. The Mollusca. Pp. 957–1020 in Ward, H.B. & Whipple, G.C. (Eds.), *Fresh-water Biology*. Ed. 1. 1111 pp. John Wiley & Sons, New York.

Acknowledgement of receipt of this application was published in BZN **62**: 126.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3267***Cherax tenuimanus* Smith, 1912 (Crustacea, Decapoda, PARASTACIDAE): proposed conservation of usage of the specific name**

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Abstract. The purpose of this application, under Article 75.6 of the Code, is to conserve the specific name *Cherax tenuimanus* Smith, 1912 in its accustomed usage, for a species of freshwater crayfish or 'marron', important in the aquaculture industry, particularly in Australia. It has long been recognised that there are two subspecies of *C. tenuimanus*; in 2002 Austin elevated these to species level and proposed the name *Cherax cainii* for one. Based on the supposed location of Smith's (1912) type series of *C. tenuimanus*, Austin applied the name *C. tenuimanus* to geographically isolated marron found only in a small catchment in Western Australia, and applied his new name *C. cainii* to all other marron in Australia and elsewhere. This switching of names is causing confusion since almost all usage of the name *C. tenuimanus* refers to marron occurring outside the area of Smith's type series. It is proposed that all previous type fixations for the names *Cherax tenuimanus* Smith, 1912 and *Cherax cainii* Austin in Austin & Ryan, 2002 be set aside and neotypes designated for both species to maintain the accustomed usage of the name *Cherax tenuimanus*.

Keywords. Nomenclature; taxonomy; Crustacea; Decapoda; PARASTACIDAE; *Cherax*; *Cherax tenuimanus*; *Cherax cainii*; freshwater crayfish; marron; aquaculture; Australia.

1. Smith (1912, p. 166) established the name *Cherax tenuimanus* for a species of freshwater crayfish, commonly known as marron, originally distributed in the rivers and dams of the south-west of Western Australia. He spelled the generic name *Cherax* as *Chaeraps*, but this is an incorrect subsequent spelling by Huxley (1878) of *Cherax* Erichson, 1846. *Cherax tenuimanus* Smith provides significant local recreational fishing, as well as an aquaculture industry in Western Australia, in other states of Australia and worldwide.

2. The name *Cherax tenuimanus* Smith, 1912 has been in common usage since 1912, with approximately 200 publications by at least 90 authors internationally. The papers include taxonomic studies (e.g. Smith, 1912, p. 166; McCulloch, 1914, p. 233; Clark, 1936, p. 20; Riek, 1967, p. 112), genetic studies (e.g. Austin & Knott, 1996;

Imgrund et al., 1997; Nguyen et al., 2002), biological and ecological studies (e.g. Shipway, 1951; Morrissy, 1978; Huner, 1994; Holdich, 2002), recreational fishing (e.g. Morrissy & Caputi, 1981; Molony & Bird, 2002; Molony et al., 2002), aquaculture (e.g. Shireman, 1973; Morrissy et al., 1990; Lawrence & Morrissy, 2000; Lawrence & Jones, 2002) and translocation studies (e.g. Avenant-Oldewage, 1993; Holdich et al., 1999; Henttonen & Huner, 1999; Zeilder, 2000; Nguyen et al., 2002). Thus the specific name *Cherax tenuimanus* Smith has been used extensively to describe all marron since 1912, including several revisions of the genus *Cherax* (e.g. Smith, 1912; McCulloch, 1914; Clark, 1936; Riek, 1967; Austin, 1996; Austin & Knott, 1996; Imgrund et al., 1997; Nguyen et al., 2002).

3. Papers by Austin (1986) and Horwitz (1990, 1995) indicated that there were two subspecies of *C. tenuimanus*. In a review by Austin & Ryan (2002) of the allozyme evidence for *C. tenuimanus*, Austin (2002, p. 360) elevated these subspecies to species level and proposed the name *Cherax cainii* for one. Austin & Ryan (2002, p. 363) reported that *C. cainii* originally had a restricted distribution in the south-west of Western Australia but had been widely transplanted into both natural and artificial water bodies and was now widespread throughout the south-west of Western Australia and had been introduced into South Australia and Victoria. Austin & Ryan (2002, p. 365) gave the distribution of *C. tenuimanus* as 'restricted to the Margaret River in the south-west of Australia'. Based on the assumption that one of the specimens in the Western Australian Museum (WAM C 127 (WAM 4131), coll. by B. Lipfert, 2.03.1911) was the holotype of *C. tenuimanus*, Austin & Ryan (2002) applied the name *C. tenuimanus* only to geographically-isolated marron found in the upper reaches of a single small catchment in the south-west of Western Australia. According to the revision of Austin & Ryan (2002), the new name *C. cainii* Austin in Austin & Ryan, 2002 would apply to all other marron in Australia and internationally, including Chile, China, South Africa, and U.S.A. Almost all historical usage of the name *Cherax tenuimanus* Smith is based on marron originating from outside the area of Smith's collection (Margaret River) and ascribed by Austin & Ryan to the species *C. cainii* Austin. Thus, a great majority of published works applying the name *C. tenuimanus* Smith, 1912 are based on animals currently referred to *C. cainii* Austin in Austin & Ryan, 2002. This is creating considerable confusion in the literature for it is unclear if papers listing *C. tenuimanus* are in fact referring to crayfish named by Austin as *C. cainii* with a world-wide distribution or to those from a relict population. In order to conserve the long-established usage of *C. tenuimanus* we propose that the Commission should reverse Austin & Ryan's use of the names *C. tenuimanus* and *C. cainii* by designating neotypes to maintain prevailing usage of the name *C. tenuimanus*.

4. Smith (1912) did not designate any specimen as a holotype for *C. tenuimanus*. We can find no record in the Natural History Museum, London (NHM) or the Western Australian Museum (WAM) referring to any holotype by Smith. Riek (1967, p. 113) refers to the 'type' of *C. tenuimanus* in NHM, and gives the type locality as Margaret River. The label with the specimen in NHM that Riek (1967) refers to states that Riek reclassified the specimen from *C. quinquecarinatus* (Gray, 1845) to *C. tenuimanus*, whereas the collection register says that this specimen was registered in 1907 and was presented by W.E. Balston. This specimen shows characters different from those in the specimen illustrated by Smith (1912). Austin & Ryan (2002, p. 363)

erroneously identified the holotype of *C. tenuimanus* as specimen WAM C 127 (= WAM 4131) from Margaret River. The label attached to this specimen includes the comment 'type (suspected)?' by author unknown. However, while it would seem a possibility that this specimen may be part of the type series of Smith 1912, this mere citation on the label is not necessarily evidence that this specimen is the holotype.

5. Austin (2002, p. 360) designated specimen WAM C 28348 as the holotype of his new species *C. cainii*. By this action the widespread and commercially important species of crayfish that was previously universally known as *C. tenuimanus* received a new name, *C. cainii*, which would apply to many marron populations in Chile, China, South Africa, Western Australia, and U.S.A. This is causing considerable confusion.

6. In order to maintain stability in the nomenclature of this highly important crayfish the Commission is asked to set aside all previous type fixations for both species and to designate a specimen of the broadly distributed species as the neotype of *C. tenuimanus*, and a specimen of the species with limited distribution as the neotype of *C. cainii*. The selected neotypes come from the same localities as the original material and genetic testing of the neotypes has confirmed the accustomed usage of the name *C. tenuimanus*.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type fixations for the following nominal species:
 - (a) *Cherax tenuimanus* Smith, 1912, and to designate specimen labelled WAM C 37199 in the Western Australian Museum collection as the neotype;
 - (b) *Cherax cainii* Austin in Austin & Ryan, 2002, and to designate specimen labelled WAM C 37197 in the Western Australian Museum collection as the neotype;
- (2) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *tenuimanus* Smith, 1912, as published in the binomen *Cherax tenuimanus* and as defined by the neotype designated in (1)(a) above;
 - (b) *cainii* Austin in Austin & Ryan, 2002, as published in the binomen *Cherax cainii* and as defined by the neotype designated in (1)(b) above.

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References

- Austin, C.M. 1986. Electrophoretic and morphological systematic studies of the Genus *Cherax* (Decapoda: Parastacidae) in Australia. 377 pp. Unpublished PhD thesis, University of Western Australia.
- Austin, C.M. 1996. Systematics of the freshwater crayfish genus *Cherax* Erichson (Decapoda: Parastacidae) in northern and eastern Australia: electrophoretic and morphological variations. *Australian Journal of Zoology*, **44**: 259–296.

- Austin, C.M. & Knott, B.** 1996. Systematics of the freshwater crayfish genus *Cherax* Erichson (Decapoda: Parastacidae) in south-western Australia: electrophoretic, morphological and habitat variation. *Australian Journal of Zoology*, **44**: 223–258.
- Austin, C.M. & Ryan, S.G.** 2002. Allozyme evidence for a new species of freshwater crayfish of the genus *Cherax* Erichson (Decapoda: Parastacidae) from the south-west of Western Australia. *Invertebrate Systematics*, **16**: 357–367.
- Avenant-Oldewage, A.** 1993. Occurrence of *Temnocephala chaeropsis* on *Cherax tenuimanus* imported into South Africa, and notes on its infestation of an indigenous crab. *South African Journal of Science*, **89**: 427–428.
- Clark, E.** 1936. The freshwater crayfishes of Australia. *Memoirs of the National Museum of Victoria*, **10**: 5–58.
- Henttonen, P. & Huner, J.V.** 1999. The introduction of alien species of crayfish in Europe: A historical introduction. Pp. 13–22 in Gherardi, F. & Holdich, D.M. (Eds.), *Crustacean Issues 11: Crayfish in Europe as Alien Species*. Balkema, Rotterdam.
- Holdich, D.M.** 2002. *Biology of Freshwater Crayfish*. 702 pp. Blackwell Science Limited, Oxford.
- Holdich, D.M., Rogers, W.D. & Reynolds, J.D.** 1999. Native and alien crayfish in the British Isles. Pp. 221–236 in Gherardi, F. & Holdich, D.M. (Eds.), *Crustacean Issues 11: Crayfish in Europe as Alien Species*. Balkema, Rotterdam.
- Horwitz, P.** 1990. *The Conservation Status of Australian Freshwater Crustacea. With A Provisional List of Threatened Species, Habitats and Potentially Threatening Processes*. Report Series No. 14. 121 pp. Australian National Parks and Wildlife Service, Canberra, Australia.
- Horwitz, P.** 1995. *A Preliminary Key to the Species of Decapoda (Crustacea: Malacostraca) Found in Australian Inland Waters*. Co-operative Research Centre for Freshwater Ecology Identification Guide No. 5. Co-operative Research Centre for Freshwater Ecology, Albury, Australia.
- Huner, J.** (Ed.). 1994. *Freshwater Crayfish Aquaculture in North America, Europe and Australia: Families Astacidae, Cambaridae and Parastacidae*. 312 pp. Food Products Press, Binghampton.
- Huxley, T.H.** 1878. On the classification and the distribution of the crayfishes. *Proceedings of the Zoological Society of London*, **1878**: 751–788.
- Imgrund, J., Growth, D. & Wetherall, J.** 1997. Genetic analysis of the freshwater crayfish *Cherax tenuimanus*. *Electrophoresis*, **18**: 1660–1665.
- Lawrence, C. & Jones, C.** 2002. *Cherax*. Pp. 635–669 in Holdich, D.M. (Ed.), *Biology of Freshwater Crayfish*. 702 pp. Blackwell Science Limited, Oxford.
- Lawrence, C. & Morrissy, N.M.** 2000. Genetic improvement of marron (*Cherax tenuimanus*) and yabbies (*Cherax* spp.) in Western Australia. *Aquaculture Research*, **31**: 69–83.
- McCulloch, R.M.** 1914. Revision of the freshwater crayfish of southwestern Australia. *Records of the Western Australian Museum*, **1**: 228–235.
- Molony, B.W. & Bird, C.** 2002. Annual report on the monitoring of the recreational marron fishery in 2000, with an analysis of long-term data and changes within this fishery. *Fisheries Research Report*, No. 137. 44 pp. Department of Fisheries, Western Australia.
- Molony, B.W., Morrissy, N.M. & Bird, C.** 2002. The West-Australian Recreational Marron Fishery (*Cherax tenuimanus*, (Smith 1912)): History and Future Challenges. *Freshwater Crayfish*, **13**: 203–220.
- Morrissy, N.M.** 1978. The past and present distribution of marron in Western Australia. *Fisheries Research Bulletin*, No. 22. 38 pp. Fisheries Department of Western Australia.
- Morrissy, N.M. & Caputi, N.** 1981. Use of catchability equations for population estimation of marron, *Cherax tenuimanus* (Smith) (Decapoda: Parastacidae). *Australian Journal of Marine and Freshwater Research*, **32**: 213–225.
- Morrissy, N.M., Evans, L.E. & Huner, J.V.** 1990. Australian freshwater crayfish: aquaculture species. *World Aquaculture*, **21**: 113–122.
- Nguyen, T.T.T., Meewan, M., Ryan, S. & Austin, C.M.** 2002. Genetic diversity and translocation in the marron, *Cherax tenuimanus* (Smith): implications for management and conservation. *Fisheries Management and Ecology*, **9**: 163–173.

- Riek, E.F.** 1967. The freshwater crayfish of Western Australia (Decapoda: Parastacidae). *Australian Journal of Zoology*, **15**: 103–121.
- Shipway, B.** 1951. The natural history of marron and other freshwater crayfishes of south-western Australia. *West Australian Naturalist*, **3**: 27–34.
- Shireman, J.V.** 1973. Experimental introduction of the Australian crayfish (*Cherax tenuimanus*) into Louisiana. *Progressive Fish Culturalist*, **35**: 107–109.
- Smith, G.W.** 1912. The freshwater crayfish of Western Australia. *Proceedings of the Zoological Society of London*, **1912**: 144–170.
- Zeidler, W.** 2000. Note on the origin of freshwater crayfish occurring on Kangaroo Island, South Australia. *Records of the South Australian Museum (Adelaide)*, **33**: 1–75.

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Case 3354***Tydeus* Koch, 1836 (Acari): proposed designation of *Tydeus spathulatus* Oudemans, 1928 as the type species**

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Abstract. The purpose of this application, under Article 70.3 of the Code, is to propose a new type species for the genus *Tydeus* Koch, 1836, the type genus of the family TYDEIDAE. The nomenclature of this genus is uncertain because of several incorrect designations of type species and a series of misidentifications. One of the two species originally included in the genus has been misidentified, and the types of both species originally included are lost. It is proposed that *Tydeus spathulatus* Oudemans, 1928 is designated as the type species of *Tydeus* Koch, 1836.

Keywords. Nomenclature; taxonomy; Acari; TYDEOIDEA; TYDEIDAE; *Tydeus*; *Tydeus spathulatus*; *Tydeus croceus*; *Tydeus kochi*; tydeid mites.

1. Koch (1836, unnumbered page) established the nominal genus *Tydeus* (Acari) to incorporate two species, *Acarus croceus* Linnaeus, 1758 and *Tydeus velox* Koch, 1836. He did not designate either species as the type.

2. Subsequently, Koch (1842, p. 70) illustrated *Tydeus mutabilis* Koch, 1838 as an example of the genus *Tydeus*. This action cannot be regarded as a valid type fixation as this species was not originally included in the genus (Article 67.2—Species eligible for type fixation) and, apart from that, the mere mention of a species as an example of a genus is not to be regarded as a type designation (Article 67.5—The term “designation”).

3. Types of the two originally included species described by Koch (1836) are lost.

4. Koch's species, *velox* and *mutabilis*, have never been recorded since their original description and are considered to be species inquirendae (Kaźmierski, 1998; André, 2005).

5. The identity of *Acarus croceus* Linnaeus, 1758 is dubious as Oudemans (1928) changed his interpretation of Linnaeus's species and referred to three different species under the name *croceus* (André, 2005). Thor (1933, p. 16) published a redescription of *Acarus croceus* Linnaeus, 1758, indicating that it is not the same as *Tydeus croceus* Koch, 1836. *Acarus croceus* Linnaeus, 1758 was subsequently designated by Oudemans (1937) as the type species of *Calotydeus* Oudemans, 1937.

6. The species identified as *Acarus croceus* Linnaeus, 1758 by Koch (1836) was misidentified. It was renamed as *Tydeus kochi* by Oudemans (1928, p. 378). Later it

was designated without any discussion as the type species of *Tydeus* by Vitzthum (1941, p. 800). Baker & Wharton (1952, p. 191) recorded *Tydeus kochi* Oudemans, 1928 as the type species of *Tydeus*. Subsequently, Baker (1970) figured *Tydeus kochi* and recorded it as the type species of the genus *Tydeus*. However, the specimens that Baker figured as *Tydeus kochi* Oudemans, 1928 differ from *Tydeus kochi* Oudemans, 1928 in the shape of the opisthosomal setae. Currently, there are no specimens of *Tydeus kochi* in Oudemans's collection housed in Leiden, and the identity of this species is uncertain. Specimens figured by Baker (1970) as *Tydeus kochi* Oudemans, 1928 are lost.

7. Due to this series of errors and in the absence of well-defined types, the true identity of the genus *Tydeus* is uncertain and two nomenclatural systems coexist, that of André (1980) and that of Kaźmierski (1989), which generates nomenclatural instability (Momen & Lundqvist, 1995).

8. André (2005) discussed three alternative approaches to this situation and compared the advantages and disadvantages of selection of a new type species from the list of three *Tydeus* species in Oudemans's collection (*Tydeus spathulatus* Oudemans, 1928, *A. croceus* Linnaeus, 1758 or *T. cruciatus* Oudemans, 1928). *Tydeus spathulatus* Oudemans, 1928 was considered the best choice. The type of *Tydeus spathulatus* Oudemans, 1928 is in a good state, properly housed in a well-known museum (National Museum of Natural History, Leiden, The Netherlands) and available for study. The description of *Tydeus spathulatus* given by André (2005) refers to the type specimens that Oudemans purchased from Berlese and collected from Padova in Italy. The 12 specimens originally placed on a single slide were remounted separately. André (2005) designated as lectotype the female remounted on the slide with the original label handwritten by Oudemans. The other slides with new labels contain the paralectotypes.

9. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to set aside all previous type species designations for the nominal genus *Tydeus* Koch, 1836 and to designate *Tydeus spathulatus* Oudemans, 1928 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Tydeus* Koch, 1836 (gender: masculine), type species by designation in (1) above *Tydeus spathulatus* Oudemans, 1928;
- (3) to place on the Official List of Specific Names in Zoology the name *spathulatus* Oudemans, 1928, as published in the binomen *Tydeus spathulatus* (specific name of the type species of *Tydeus* Koch, 1836).

References

- André, H.M. 1980. A generic revision of the family Tydeidae (Acari: Actinedida). IV. Generic descriptions, keys and conclusions. *Bulletin et Annales de la Société royale belge d'Entomologie*, **116**: 103–130, 139–168.
- André, H.M. 2005. In search of the true *Tydeus*. *Journal of Natural History*, **39**: 975–1001.
- Baker, E.W. 1970. The genus *Tydeus*: subgenera and species group with descriptions of new species (Acarina: Tydeidae). *Annals of the Entomological Society of America*, **63**: 163–177.
- Baker, E.W. & Wharton, G.W. 1952. *An Introduction to Acarology*. 465 pp. MacMillan, New York.

- Kaźmierski, A.** 1989. Revision of the genus *Tydeus* Koch sensu André, *Homeotydeus* André and *Orthotydeus* André with description of a new genus and four new species of Tydeinae (Acari: Actinedida: Tydeidae). *Mitteilungen aus dem Hamburgischen Zoologischen Museum und Institut*, **86**: 289–314.
- Kaźmierski, A.** 1998. Tydeinae of the world: Generic relationships, new and redescribed taxa and keys to all species. A revision of the subfamilies Pretydeinae and Tydeinae (Acari: Actinedida: Tydeidae) - Part IV. *Acta Zoologica Cracoviensia*, **41**: 283–455.
- Koch, C.L.** 1836. *Deutschlands Crustaceen, Myriapoden und Arachniden, Ein Beitrag zur deutschen Fauna*, Heft 4=137. Herrich-Schäffer, Regensburg.
- Koch, C.L.** 1838. *Deutschlands Crustaceen, Myriapoden und Arachniden. Ein Beitrag zur deutschen Fauna*, Heft 20=160. Herrich-Schäffer, Regensburg.
- Koch, C.L.** 1842. *Übersicht des Arachnidensystems*, vol. 3(2). C.H. Zeh'schen Buchhandlung, Nürnberg.
- Momen, F. & Lundqvist, L.** 1995. The genus *Tydeus* (Acari: Prostigmata: Tydeidae) in southern Sweden: six new species. *Acarologia*, **36**: 41–56.
- Oudemans, A.C.** 1928. Acarologische aantekeningen XCIV. *Entomologische Berichten*, **7**: 374–382.
- Oudemans, A.C.** 1937. *Kritisch historisch Overzicht der Acarologie*. Derde Gedeelde, Band C. 1–23, 799–1348 pp. E.J. Brill, Leiden.
- Thor, S.** 1933. Tydeidae, Ereynetidae. *Das Tierreich*, **6**: 1–84.
- Vitzthum, H.** 1941. Acarina. 5 Lieferung. *Dr H.G. Bronns Klassen und Ordnungen des Tierreichs*, **5**: 641–800.

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Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Case 3359***Germarostes* Paulian, 1982 and *Haroldostes* Paulian, 1982 (Insecta, Coleoptera, SCARABAEIDAE): proposed conservation**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code and Recommendation 23A, is to conserve the generic name *Germarostes* Paulian, 1982 and the subgeneric name *Haroldostes* Paulian, 1982 for a group of New World scarab beetles. Since 1982, Paulian's *Germarostes* or *Haroldostes* (the latter often cited as a subgenus) have been universally used by numerous authors. The names are threatened by the unused senior subjective synonym *Sphaerelytrus* Blanchard, 1841. It is proposed that the names *Germarostes* and *Haroldostes* are conserved by suppression of *Sphaerelytrus*.

Keywords. Nomenclature; taxonomy; SCARABAEIDAE; CERATOCANTHINAE; *Sphaerelytrus*; *Germarostes*; *Haroldostes*; *Sphaerelytrus nigerrimus*; *Germarostes aphodioides*; *Haroldostes rugiceps*; New World; scarab beetles.

1. Blanchard (1841, pl. 10, fig. 10) published a drawing of the new New World genus and species *Sphaerelytrus nigerrimus* Blanchard (publication dates from Sherborn & Griffin, 1934). The description of this species was published by Blanchard (1847, p. 186). Until now, the publication date of the species *Sphaerelytrus nigerrimus* Blanchard has been erroneously listed by all authors as 1846 (the actual publication date of the text of this volume was 1847—see Sherborn & Griffin, 1934). While it has not been explicitly mentioned in the literature as yet, the drawing of *S. nigerrimus* by Blanchard (1841, pl. 10, fig. 10) serves as an indication (Article 12.2.7 of the Code—New genus-group name or a species-group name proposed in association with an illustration) and establishes the publication date of the genus *Sphaerelytrus* as 1841. Lacordaire (1856) suggested that, since Blanchard did not mention any generic characters, the name might be a 'lapsus calami' for *Sphaeromorphus* Germar, 1843, and it has been treated as such by several authors, including Paulian (1982), who mentioned that it might be in 'error?'. The genus *Sphaeromorphus* is now considered a synonym of *Ceratocanthus* White, 1842. The generic nomenclatural changes involved for the New World species were fully discussed by Martinez, (1968) and the placement of most species is given by him in a detailed list. Since the paper by Martinez, several New World species have been described, but until Paulian's (1982) paper, all of these were placed in either *Cloeotus* Germar, 1843 or *Ceratocanthus* White 1842 (or in the junior homonym *Acanthocerus* Macleay, 1819). Both *Cloeotus* and *Ceratocanthus* are still considered valid, but have been redefined for taxa outside the scope of this case. From 1856 to the present, *Sphaerelytrus* has not been used as a valid name.

2. The type species of *Sphaerelytrus* Blanchard, 1841 (*Sphaerelytrus nigerrimus* Blanchard, 1841) is currently considered to be in the subgenus *Haroldostes* Paulian, 1982 (p. 44) (type species by original designation *Acanthocerus rugiceps* Germar, 1843, p. 134). If *Sphaerelytrus* Blanchard is used as a valid name, it would need to replace the subgeneric name *Haroldostes* Paulian, 1982, which is a junior subjective synonym of *Sphaerelytrus* Blanchard, 1841. *Haroldostes* Paulian, 1982 is currently considered by Howden & Gill (2000) a subgenus of *Germarostes* Paulian, 1982 (p. 13) (type species by original designation *Melolontha aphodioides* Illiger, 1800 (p. 109)). Since 1982, Paulian's *Germarostes* or *Haroldostes* have been universally used by numerous authors. If *Sphaerelytrus* is used as a valid name, it would replace *Haroldostes* and, since it would be the oldest name, replace *Germarostes* as the nominotypical name of the entire genus; *Germarostes* would then be reassigned as a subgenus of *Sphaerelytrus*. Currently there are 71 valid names placed in *Germarostes* and a change in generic usage now would cause confusion for a considerable time. Authors who have used *Germarostes* since 1982 are: Ratcliffe (1991, 2002); Howden (1992, 2003); Morón (1994); Poole & Gentili (1996); Morón et al. (1998); Peck & Thomas (1998); Delgado et al. (2000); Howden & Gill (2000, 2005); Harpootlian (2001); Mendoza & Jerez (2001); Navarrete-Heredia (2001); Navarrete-Heredia et al. (2001); Grebennikov et al. (2002); Jameson (2002); Kriska & Young (2003); Morón & Arce (2003); Riley & Wolfe (2003); Smith (2003); Weeks et al. (2003); Grebennikov et al. (2004); Delgado & Márquez (2006); Ocampo & Ballerio (2006). Authors who have used *Haroldostes* since 1982 are: Howden & Gill (2000); Delgado et al. (2000); Ratcliffe (2002); Howden (2003); Grebennikov et al. (2004); Delgado & Márquez (2006); Ocampo & Ballerio (2006). Other papers using the name *Germarostes* (*Haroldostes*) are in press. Although *Sphaerelytrus* has not been used since 1899, Article 23.9.1 cannot be used for an automatic reversal of precedence because the names *Haroldostes* and *Germarostes* have been used in fewer than 25 publications. It is, therefore, proposed that the names *Haroldostes* and *Germarostes* are conserved by suppression of *Sphaerelytrus* in order to maintain current and prevailing usage.

3. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the generic name *Sphaerelytrus* Blanchard, 1841 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Germarostes* Paulian, 1982 (gender: masculine), type species by original designation *Melolontha aphodioides* Illiger, 1800;
 - (b) *Haroldostes* Paulian, 1982 (gender: masculine), type species by original designation *Acanthocerus rugiceps* Germar, 1843;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *aphodioides* Illiger, 1800, as published in the binomen *Melolontha aphodioides* (specific name of the type species of *Germarostes* Paulian, 1982);
 - (b) *rugiceps* Germar, 1843, as published in the binomen *Acanthocerus rugiceps* (specific name of the type species of *Haroldostes* Paulian, 1982);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the name *Sphaerelytrus* Blanchard, 1841, as suppressed in (1) above.

References

- Blanchard, C.É.** 1841. Insectes de l'Amérique Méridionale. Plate 10 in d'Orbigny, A., Blanchard, C.É. & Brullé, A., *Voyage dans l'Amérique Méridionale*, volume 6, part 2. Plates 1–32. Bertrand, Paris; V. Levrault, Strasbourg.
- Blanchard, C.É.** 1847. Insectes de l'Amérique Méridionale. Pp. 1–222 in d'Orbigny, A., Blanchard, C.É. & Brullé, A., *Voyage dans l'Amérique Méridionale*, volume 6, part 2. Bertrand, Paris; V. Levrault, Strasbourg.
- Delgado, L. & Márquez, J.** 2006. Estado del conocimiento y conservación de los Coleópteros Scarabaeoidea (Insecta) del estado de Hidalgo, México. *Acta Zoológica Mexicana*, **22**(2): 57–108.
- Delgado, L., Pérez, A. & Blackaller, J.** 2000. Claves para determinar a los taxones genericos y supragenericos de Scarabaeoidea Latreille, 1802 (Coleoptera) de Mexico. *Folia Entomologica Mexicana*, **110**: 33–87.
- Germar, E.F.** 1843. Ueber die Gruppe der kugelförmigen Trogiden. *Zeitschrift für die Entomologie*, **4**: 109–148.
- Grebennikov, V.V., Ballerio, A., Ocampo, F.C. & Scholtz, C.H.** 2004. Larvae of Ceratocanthidae and Hybosoridae (Coleoptera: Scarabaeoidea): study of morphology, phylogenetic analysis and evidence of paraphyly of Hybosoridae. *Systematic Entomology*, **29**: 524–543.
- Grebennikov, V.V., Ballerio, A. & Scholtz, C.H.** 2002. Larva and pupa of *Cyphopisthes descarpentriensi* Paulian (Coleoptera: Scarabaeoidea: Ceratocanthidae) and their phylogenetic implications. *Australian Journal of Entomology*, **41**(4): 367–374.
- Harpootlian, P.J.** 2001. Scarab beetles (Coleoptera: Scarabaeidae) of South Carolina. *Biota of South Carolina*, **2**: 1–157.
- Howden, H.F.** 1992. First Canadian record of the subfamily Ceratocanthinae (Coleoptera: Scarabaeidae). *Coleopterists Bulletin*, **46**(3): 273.
- Howden, H.F.** 2003. Capítulo 5. Subfamilia Ceratocanthinae. Pp. 114–121 in Morón, M.A. (Ed.), *Atlas de los Escarabajos de México*, Vol. II. Argania editio, Barcelona.
- Howden, H.F. & Gill, B.D.** 2000. Tribes of New World Ceratocanthinae, with keys to genera and descriptions of new species (Coleoptera: Scarabaeoidea). *Sociobiology*, **35**: 281–329.
- Howden, H.F. & Gill, B.D.** 2005. An unusual new species of *Germarostes* Paulian from Peru (Coleoptera: Scarabaeidae: Ceratocanthinae). *Coleopterists Bulletin*, **59**: 272–274.
- Illiger, K.** Vierzig neue Insekten aus der Hellwigischen Sammlung in Braunschweig. Beschreiben von Karl Illiger im anfang des Februars 1800. Mit einigen Abbildungen. *Archiv für Zoologie und Zootomie*, **1**(2): 103–150.
- Jameson, M.L.** 2002. Ceratocanthidae Martínez 1968, chapter 32 in Arnett, R.H., Thomas, M. C., Skelley, P.E. & Frank, J.H. (Eds.), *American Beetles*. Volume 2. 861 pp. CRC Press, Boca Raton.
- Kriska, N.L. & Young, D.K.** 2003. An annotated checklist of Wisconsin Scarabaeoidea (Coleoptera). *Insecta Mundi*, **16**: 31–48.
- Lacordaire, J.T.** 1856. *Histoire Naturelle des Insectes. Genera des Coléoptères*, vol. 3. 594 pp. Librairie Encyclopédique de Roret, Paris.
- MacLeay, W.S.** 1819. *Horæ Entomologicae: or Essays on the Annulose Animals*, volume 1, parts 1, 2. 524 pp. S. Bagster, London.
- Martínez, A.** 1968. Insectos nuevos o poco conocidos XIII. Ceratocanthini nom. nov. para Acanthocerini (Coleoptera, Scarabaeidae, Troginae). *Revista de la Sociedad Entomológica Argentina*, **30**: 9–16.
- Mendoza, G. & Jerez, V.** 2001. Coleopteros epigeos asociados a *Peumus boldus* Mol. en la Reserva Nacional Isla Mocha, Chile (Insecta - Coleoptera). *Gayana*, **65**(2): 129–136.
- Morón, M.A.** 1994. Fauna de Coleoptera Lamellicornia en las montañas del noreste de Hidalgo, Mexico. *Acta Zoológica Mexicana* (n.s.), **63**: 7–59.
- Morón, M.A. & Arce, R.** 2003. Description of third instar larva and pupa of *Ceratocanthus relucens* (Bates) (Coleoptera: Scarabaeidae: Ceratocanthinae). *Coleopterists Bulletin*, **57**(3): 245–253.
- Morón, M.A., Deloya, C., Ramirez-Campos, A. & Hernández-Rodríguez, S.** 1998. Fauna de Coleoptera Lamellicornia de la region de Tepic, Nayarit, Mexico. *Acta Zoológica Mexicana* (n.s.), **75**: 73–116.

- Navarrete-Heredia, J.L.** 2001. Beetles associated with *Atta* and *Acromyrmex* ants (Hymenoptera: Formicidae: Attini). *Transactions of the American Entomological Society*, **127**(3): 381–429.
- Navarrete-Heredia, J.L., Delgado, L. & Fierros-López, H.E.** 2001. Coleoptera Scarabaeoidea de Jalisco. México. *Dugesiana*, **8**(1): 37–93.
- Ocampo, F.C. & Ballerio, A.** 2006. Phylogenetic analysis of the scarab family Hybosoridae and monographic revision of the New World subfamily Anaidinae (Coleoptera: Scarabaeoidea). 4. Catalog of the subfamilies Anaidinae, Ceratocanthinae, Hybosorinae, Liparochrinae, and Pachyplectrinae (Scarabaeoidea: Hybosoridae). *Bulletin of the University of Nebraska State Museum*, **19**: 178–209.
- Paulian, R.** 1982. Révision des Cératocanthides (Coleoptera Scarabaeoidea) d'Amérique du Sud. *Mémoires du Muséum National d'Histoire Naturelle, Série A, Zoologie*, **124**: 1–110.
- Peck, S.B. & Thomas, M.C.** 1998. A distributional checklist of the beetles (Coleoptera) of Florida. *Arthropods of Florida and Neighboring Land Areas*, **16**: 1–180.
- Poole, R.W. & Gentili, P.** 1996. *Nomina Insecta Nearctica. A check list of the insects of North America. Volume 1: Coleoptera, Strepsiptera*. 827 pp. Entomological Information Services, Rockville, Maryland.
- Ratcliffe, B.C.** 1991. The scarab beetles of Nebraska. *Bulletin of the University of Nebraska State Museum*, **12**: 1–333.
- Ratcliffe, B.C.** 2002. A checklist of the Scarabaeoidea (Coleoptera) of Panama. *Zootaxa*, **32**: 1–48.
- Riley, E.G. & Wolfe, C.S.** 2003. An annotated checklist of the Scarabaeoidea of Texas (Coleoptera). *Southwestern Entomologist Supplement*, **26**: 1–37.
- Sherborn, C.D. & Griffin, F.J.** 1934. On the dates of publication of the Natural History portions of Alcida d'Orbigny's *Voyage Amérique Méridionale*. *Annals and Magazine of Natural History*, (10)**13**: 130–134.
- Smith, A.B.T.** 2003. *Checklist of the Scarabaeoidea of the Nearctic Realm*. Version 3. Electronically published, Lincoln, Nebraska. 74 pp. <http://www-museum.unl.edu/research/entomology/nearctic.htm> (Accessed 25 August 2006).
- Weeks, A.W., Velten, R. & Stóuthamer, R.** 2003. Incidence of a new sex-ratio-distorting endosymbiotic bacterium among arthropods. *Proceedings of the Royal Society of London (B)*, **270**: 1857–1865.
- White, A.** 1842. Description of some hemipterous insects of the section Heteroptera. *Transactions of the Entomological Society of London*, **3**: 84–94.

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Case 3360

The ichnogenus *Coprinisphaera* Sauer, 1955 (Ichnotaxa, Insecta, Coleoptera, COPRINISPHAERIDAE): proposed conservation

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the universally accepted name *Coprinisphaera* Sauer, 1955 for an ichnogenus attributed to dung-beetle brood balls (ichnofamily COPRINISPHAERIDAE). This name is threatened by a rarely used senior subjective synonym *Fontanai* Roselli, 1939. It is proposed that the name *Coprinisphaera* is conserved by suppression of *Fontanai*.

Keywords. Nomenclature; taxonomy; ichnofossils; COPRINISPHAERIDAE; *Coprinisphaera*; *Fontanai*; *Coprinisphaera ecuadoriensis*; dung-beetle brood balls; Ecuador; Uruguay; Eocene–Holocene.

1. Roselli (1939, p. 79) established the ichnogenus *Fontanai* for the single ichnospecies *Fontanai kraglievichi*, an insect trace fossil from paleosols in the Paleogene Asencio Formation of Uruguay. The second mention of this ichnogenus was made 37 years later by Roselli (1976, p. 167), who proposed to replace *Fontanai* with *Fontanaichnus*, which would be a junior objective synonym.

2. Since 1939, *Fontanai* and *Fontanaichnus* have been cited at least twelve times (see Genise, 2004), for the most part only in lists without any other treatment. The limited recognition of the significance of Roselli's highly original contribution until recent years, the doubtful affinities of the trace fossil and the lack of an ichnotaxonomic revision of dung-beetle fossil brood balls before Genise (2004) and Laza (2006) all contributed to the lack of recognition of the name *Fontanai*.

3. Sauer (1955, p. 123) established the ichnogenus *Coprinisphaera*, including in it the single ichnospecies *Coprinisphaera ecuadoriensis* for a fossil dung-beetle brood ball from the Pleistocene of Ecuador, probably in ignorance of the earlier contribution by Roselli. Other researchers later discovered examples from paleosols of widely separated ages and localities. The name *Coprinisphaera* was subsequently used by

many workers including Sauer (1956, 1959), Häntzschel (1962, 1975), Martínez (1982), Retallack (1990, 2001), Genise (1993, 1999, 2004), Donovan (1994), Johnston et al. (1996), Buatois et al. (1998, 2002), Krell (2000), Bellosi et al. (2001), De (2002), Mikuláš & Genise (2003), Bellosi (2004), Bellosi & Genise (2004), McIlroy (2004), and Genise et al. (2004).

4. Since its establishment, *Coprinisphaera* has been used as a valid name by more than ten authors in 25 works during the past 50 years, which meets the requirements of Article 23.9.1.2 of the Code. In addition, it was included in both editions of the trace-fossil section of the *Treatise on Invertebrate Paleontology* (Häntzschel, 1962, 1975), and its ichnological importance is reflected in its selection as a name of the *Coprinisphaera* ichnofacies (Genise et al., 2000) and as type ichnogenus of one of the few ichnofamilies to be formally defined: the ichnofamily COPRINISPHAERIDAE Genise, 2004. The ichnogenus *Coprinisphaera* is currently accepted by all researchers as the valid name for the ichnotaxon comprising dung-beetle fossil brood balls.

5. Laza (in press), reviewing the ichnogenus *Coprinisphaera*, noted that the little used name *Fontanai* is a senior subjective synonym of *Coprinisphaera*. In accordance with the recommendation of Article 82 with regard to ongoing ichnogenetic revisions, he used the name *Coprinisphaera* in anticipation of the ruling of the Commission.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the generic name *Fontanai* Roselli, 1939 for the purposes of the Principle of Priority but not for those of the Principle of Homonymy;
- (2) to place on the Official List of Generic Names in Zoology the name *Coprinisphaera* Sauer, 1955 (gender: feminine), type ichnospecies by monotypy *Coprinisphaera ecuadoriensis* Sauer, 1955;
- (3) to place on the Official List of Specific Names in Zoology the name *ecuadoriensis* Sauer, 1955, as published in the binomen *Coprinisphaera ecuadoriensis* (specific name of the type ichnospecies of *Coprinisphaera* Sauer, 1955);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
 - (a) *Fontanai* Roselli, 1939, as suppressed in (1) above;
 - (b) *Fontanaichmus* Roselli, 1976 (a junior objective synonym of *Fontanai* Roselli, 1939).

References

- Bellosi, E.S. 2004. Sedimentological control of the *Coprinisphaera* ichnofacies. P. 19 in: *Abstracts of the First International Congress on Ichnology*. Trelew, Argentina.
- Bellosi, E.S. & Genise, J.F. 2004. Insect trace fossils from paleosols of the Sarmiento Formation (Middle Eocene–Lower Miocene) at Gran Barranca (Chubut Province). Pp. 15–29 in Bellosi, E.S. & Melchor, R.N. (Eds.), *Fieldtrip Guidebook from the First International Congress on Ichnology*. Trelew, Argentina.
- Bellosi, E.S., Laza, J.H. & González, M.G. 2001. Icnofaunas en paleosuelos de la Formación Sarmiento (Eoceno–Mioceno), Patagonia Central. P. 31 in: *Resúmenes de la IV Reunión Argentina de Icnología y Segunda Reunión de Icnología del MERCOSUR*. Facultad de Ciencias Exactas y Naturales (UNLPam), La Pampa.

- Buatois, L.A., Mángano, M.G. & Aceñolaza, F.G.** 2002. *Trazas Fósiles*. Museo Paleontológico Egidio Feruglio, Trelew. Edición Especial MEF, **2**: 1–382.
- Buatois, L.A., Mángano, M.G., Genise, J.F. & Taylor, T.N.** 1998. The ichnologic record of the continental invertebrate invasion: evolutionary trends in environmental expansion, ecospace utilization, and behavioral complexity. *Palaios*, **13**: 217–240.
- De, C.** 2002. Continental mayfly burrows within relict-ground in inter-tidal beach profile of Bay of Bengal coast: a new ichnological evidence of Holocene marine transgression. *Current Science*, **83**: 64–67.
- Donovan, S.K.** 1994. Insects and other arthropods as trace-makers in non-marine environments and palaeoenvironments. Pp. 200–220 in Donovan, S.K. (Ed.), *The Palaeobiology of Trace Fossils*. John Wiley and Sons, New York.
- Genise, J.F.** 1993. Trazas fósiles de insectos en paleosuelos. Pp. 49–59 in Melchor, R.N., *Nuevas tendencias en el estudio de trazas fósiles*. Facultad de Ciencias Exactas y Naturales (UNLPam), La Pampa.
- Genise, J.F.** 1999. Paleocnología de Insectos. *Revista de la Sociedad Entomológica Argentina*, **58**(1–2): 104–116.
- Genise, J.F.** 2004. Ichnotaxonomy and ichnostratigraphy of chambered trace fossils in palaeosols attributed to coleopterans, termites and ants. Pp. 419–453 in McIlroy, D. (Ed.), *The Application of Ichnology to Palaeoenvironmental and Stratigraphic Analysis*. Geological Society of London Special Publication, **228**. Geological Society, London.
- Genise, J.F., Bellosi, E.S. & González, M.A.** 2004. An approach to the description and interpretation of ichnofabrics in palaeosols. Pp. 355–382 in McIlroy, D. (Ed.), *The Application of Ichnology to Palaeoenvironmental and Stratigraphic Analysis*. Geological Society of London Special Publication, **228**. Geological Society, London.
- Genise, J.F., Mángano, M.G., Buatois, L.A., Laza, J.H. & Verde, M.** 2000. Insect trace fossil associations in paleosols: The *Coprinisphaera* ichnofacies. *Palaios*, **15**: 49–64.
- Häntzschel, W.** 1962. Trace fossils and problematica. Pp. 171–245 in Moore, R.C. (Ed.), *Treatise on Invertebrate Paleontology, 1st Edition, Part W (Miscellanea)*. Geological Society of America & University of Kansas Press, New York & Lawrence, Kansas.
- Häntzschel, W.** 1975. Trace fossils and problematica. Pp. 1–269 in Teichert, C. (Ed.), *Treatise on Invertebrate Paleontology, 2nd Edition, Part W (Supplement 1)*. Geological Society of America & University of Kansas Press, Boulder, Colorado & Lawrence, Kansas.
- Johnston, P.A., Eberth, D.A. & Anderson, P.K.** 1996. Alleged vertebrate eggs from Upper Cretaceous redbeds, Gobi Desert, are fossil insect (Coleoptera) pupal chambers: *Fictovichnus* new ichnogenus. *Canadian Journal of Earth Sciences*, **33**: 511–525.
- Krell, F.** 2000. The fossil record of Scarabaeoidea of the Mesozoic and Tertiary (Coleoptera: Polyphaga). *Invertebrate Taxonomy*, **14**: 871–905.
- Laza, J.H.** 2006. Dung-beetle fossil brood balls: the ichnogenera *Coprinisphaera* Sauer and *Quirogaichnus* n. igen. (Coprinisphaeridae). *Ichnos*, **13**(4): 217–236.
- McIlroy, D.** 2004. Some ichnological concepts, methodologies, applications and frontiers. Pp. 3–27 in McIlroy, D. (Ed.), *The Application of Ichnology to Palaeoenvironmental and Stratigraphic Analysis*. Geological Society of London Special Publication, **228**. Geological Society, London.
- Martínez, S.** 1982. Catálogo sistemático de los insectos fósiles de América del Sur. *Revista de la Facultad Humanidades y Ciencias (serie Ciencias de la Tierra)*, **1**: 29–84.
- Mikuláš, R. & Genise, J.F.** 2003. Traces within traces. Holes, pits and galleries in walls and fillings of insect trace fossils in paleosols. *Geologica Acta*, **1**: 339–348.
- Retallack, G.J.** 1990. The work of dung beetles and its fossil record. Pp. 214–226 in Boucot, A.J., *Evolutionary Paleobiology of Behavior and Coevolution*. Elsevier, Amsterdam.
- Retallack, G.J.** 2001. *Soils of the Past* (2nd Edition). 404 pp. Blackwell, Oxford.
- Roselli, F.L.** 1939. Apuntes de geología y paleontología uruguaya. Sobre insectos del Cretácico del Uruguay o descubrimiento de admirables instintos constructivos de esa época. *Boletín de la Sociedad Amigos de las Ciencias Naturales "Kraglievich-Fontana"*, **1**: 72–102.
- Roselli, F.L.** 1976. *Contribución al estudio de la geopaleontología de los departamentos de Colonia y Soriano Uruguay*. 172 pp. IMCO Ed., Montevideo.

- Sauer, W.** 1955. *Coprinisphaera ecuadoriensis*, un fósil singular del Pleistoceno. *Boletín del Instituto de Ciencias Naturales del Ecuador*, **1**(2): 123–132.
- Sauer, W.** 1956. *Coprinisphaera ecuadoriensis* (Bola de Cangahua) y las esferas elaboradas actualmente por escarabajos de la familia Scarabaeidae. *Boletín de Informaciones Científicas Nacionales*, **8**: 550–555.
- Sauer, W.** 1959. Merkwürdige Kugeln in Tuffen Ecuadors und ihre Deutung. *Natur und Volk*, **89**: 118–124.

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Case 3366***Cisseis* Gory & Laporte de Castelnau, 1839 and *Curis* Gory & Laporte de Castelnau, 1838 (Insecta, Coleoptera): proposed conservation**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the generic names *Cisseis* Gory & Laporte de Castelnau, 1839 and *Curis* Gory & Laporte de Castelnau, 1838 for genera of jewel beetles by suppressing their respective little-used and poorly defined senior synonyms *Diphucrania* Dejean, 1833 and *Selagis* Mannerheim, 1837.

Keywords. Nomenclature; taxonomy; Coleoptera; BUPRESTIDAE; *Cisseis*; *Curis*; *Cisseis duodecimguttata*; *Curis caloptera*; jewel beetles.

Conservation of the name *Cisseis*

1. Dejean (1833, p. 81) established the genus name *Diphucrania* for three species. Kubáň et al. (2001, p. 204) designated *Buprestis leucosticta* Kirby, 1818 (p. 382) as the type species of *Diphucrania*.

2. Gory & Laporte de Castelnau (1839, p. 1) established the generic name *Cisseis*. Duponchel (in d'Orbigny, 1845, p. 749) designated *Buprestis duodecimguttata* Guérin-Méneville, 1830 (p. 65) as the type species of *Cisseis*. *Buprestis duodecimguttata* is currently a junior subjective synonym of *Buprestis duodecimmaculata* Fabricius, 1801 (p. 191). This synonymy was first proposed by Saunders, 1871 (p. 103).

3. *Diphucrania* has not been used since it was synonymized with *Cisseis* by Lacordaire (1857, p. 78). The name *Cisseis* Gory & Laporte de Castelnau, 1839 has been widely and consistently used (e.g. Lacordaire, 1857, p. 78; Saunders, 1871, p. 102; Carter, 1929, p. 277; Obenberger, 1934, p. 842; Bellamy, 1986, p. 596, 1988, p. 417; Cobos, 1986, p. 212; Hołyński, 1993, p. 15; Lawrence & Britton, 1994, p. 105; Kubáň et al., 2001, p. 203; Barker, 2002, p. 85). However, the conditions of Article 23.9.1.2 of the Code (Reversal of Precedence) are not met because only six authors used this name in 15 publications in the last 50 years, and a ruling of the Commission is needed for its conservation by the suppression of *Diphucrania*.

Conservation of the name *Curis*

4. Mannerheim (1837, p. 68) established the generic name *Selagis* for a single new species *Selagis spencei* Mannerheim, 1837 (p. 68), which is the type species by monotypy. Earlier, the name *Selagis* had been invalidly used for the nomen nudum *Selagis caloptera* MacLeay (with no other reference to this specific name) in two consecutive volumes of Dejean's catalogues (1833, p. 79; 1836, p. 89).

5. Gory & Laporte de Castelnau (1838, p. 47) established the genus-group name *Curis* (as a subgenus of *Stigmodera*). Bellamy (1998, p. 376) designated *Buprestis caloptera* Boisduval, 1835 (p. 93) as the type species of *Curis*.

6. Lacordaire (1857, p. 51) treated *Selagis* as a synonym of *Curis* and placed the name *Selagis* under *Curis*, and was followed by Gemminger & Harold (1869, p. 1392) and Saunders (1871, p. 57). *Selagis* has only been used as a senior synonym of *Curis* once since then by Bellamy (2002, p. 376). This recent use of *Selagis* as a valid name means that the conditions of Article 23.9.1.1 of the Code (Reversal of Precedence) are not met and a ruling by the Commission is needed for formal suppression of the name. The name *Curis* Gory & Laporte de Castelnau has been widely and consistently used since the original description (e.g. Lacordaire, 1857, p. 51; Saunders, 1871, p. 57; Carter, 1929, p. 289; Obenberger, 1930, p. 566; Bellamy, 1986, p. 595; Hołyński, 1988, p. 53; Lawrence & Britton, 1994, p. 105; Bílý, 2000, p. 111).

7. The names *Cisseis* Gory & Laporte de Castelnau, 1839 and *Curis* Gory & Laporte de Castelnau, 1838 are widely used, and their replacement with their respective senior synonyms *Diphucrania* Dejean, 1833 and *Selagis* Mannerheim, 1837 would cause confusion and considerable nomenclatural instability.

8. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress for the purposes of the Principle of Priority but not for those of the Principle of Homonymy the following names:
 - (a) *Diphucrania* Dejean, 1833;
 - (b) *Selagis* Mannerheim, 1837;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Cisseis* Gory & Laporte de Castelnau, 1839 (gender: feminine), type species by subsequent designation by Duponchel in d'Orbigny (1845) *Buprestis duodecimguttata* Guérin-Méneville, 1830;
 - (b) *Curis* Gory & Laporte de Castelnau, 1838 (gender: feminine), type species by subsequent designation by Bellamy (1998) *Buprestis caloptera* Boisduval, 1835;
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *duodecimmaculata* Fabricius, 1801, as published in the binomen *Buprestis duodecimmaculata* (senior subjective synonym of *Buprestis duodecimguttata* Guérin-Méneville, 1830, the specific name of the type species of *Cisseis* Gory & Laporte de Castelnau, 1839);
 - (b) *caloptera* Boisduval, 1835, as published in the binomen *Buprestis caloptera* (specific name of the type species of *Curis* Gory & Laporte de Castelnau, 1838);
- (4) to place on the Official Index of Rejected and Invalid Generic Names in Zoology the following names:
 - (a) *Diphucrania* Dejean, 1833, as suppressed in (1)(a) above;
 - (b) *Selagis* Mannerheim, 1837, as suppressed in (1)(b) above.

References

- Barker, S. 2002. A checklist of *Cisseis* (sensu stricto) Gory & Laporte, 1839 (Coleoptera: Buprestidae: Agrilinae). *Records of the South Australian Museum*, **35**(1): 85–90.

- Bellamy, C.L.** 1986. The higher classification of Australian Buprestidae with the description of a new genus and species (Coleoptera). *Australian Journal of Zoology*, **34**: 583–600.
- Bellamy, C.L.** 1988. The classification and phylogeny of Australian Coroebini with a revision of the genera *Paracephala*, *Meliboeithon* and *Dinocephalia*. *Invertebrate Taxonomy*, **2**(3): 413–453.
- Bellamy, C.L.** 1998. A clarification of authorship of buprestid genera originally defined in the catalogues of P.F.M.A. Dejean (Coleoptera, Buprestidae). *Fragmenta entomologica*, **29**(2): 365–382.
- Bellamy, C.L.** 2002. Coleoptera: Buprestoidea. In Houston, W.W.K. (Ed.), *Zoological Catalogue of Australia*. Volume 29.5. xii, 492 pp., 4 color plates. CSIRO Publishing, Melbourne, Australia.
- Bilý, S.** 2000. A new concept of Anthaxiini (Coleoptera: Buprestidae). *Folia Heyrovskyana*, **8**(2): 109–114.
- Boisduval, J.B.A.D. de.** 1835. *Voyage de découvertes de l'Astrolabe exécuté par ordre du Roi, pendant les années 1826–1827–1828–1829, sous les commandement de M.J. Dumont d'Urville. Faune entomologique de l'Océan Pacifique, avec l'illustration des insectes nouveaux recueillis pendant le voyage. Deuxième partie. Coléoptères et autres ordres.* Pp. i–vii, 1–716. J. Tastu, Paris.
- Carter, H.J.** 1929. A check list of the Australian Buprestidae. With tables and keys to sub-families, tribes, and genera (by A. Théry). *Australian Zoologist*, **5**(4): 265–304.
- Cobos, A.** 1986. *Fauna Iberica de Coleopteros Buprestidae*. 364 pp. Consejo Superior de Investigaciones Científicas, Madrid.
- Dejean, P.F.M.A.** 1833. *Catalogue des Coléoptères de la collection de M. le Comte Dejean*, livraison 1. Pp. 1–96. Méquignon-Marvis, Paris.
- Dejean, P.F.M.A.** 1836. *Catalogue des Coléoptères de la collection de M. le Comte Dejean*. Troisième édition, revue, corrigée, et augmentée, livraisons 1–4. Pp. 1–384. Méquignon-Marvis, Paris.
- Duponchel, P.A.J.** 1841–1848. In d'Orbigny, C.D. (Ed.), *Dictionnaire universel d'histoire naturelle*, vols. 1 (1841), 2 (1842), 3 (1843), 4 (1844), 5 (1848), 6 (1845). Bureau Principal de l'Editeur & Renard, Martinet & Cie, Paris.
- Fabricius, J.C.** 1801. *Systema Eleutheratorum*, ordines, genera, species: adiectis synonymis, locis, observationibus, descriptionibus, vol. 2. 687 pp. Bibliopolii Academici Novi, Kiliae.
- Gemminger, M. & Harold, E. von.** 1869. *Catalogus coleopterorum hucusque descriptorum synonymicus et systematicus*, vol. 5. Pp. 1347–1608. Monachii, London.
- Gory, H.L. & Laporte de Castelnau, F.L.** 1838. *Histoire naturelle et iconographie des insectes Coléoptères*. Monographie des buprestides, vol. 2, livraisons 17–24, genera: *Stigmodera*, *Polycesta*, *Belionota*, *Eurybia* (genera paged separately). P. Duménil, Paris.
- Gory, H.L. & Laporte de Castelnau, F.L.** 1839. *Histoire naturelle et iconographie des insectes Coléoptères*. Monographie des buprestids, vol. 2, livraisons 25–35, genera: *Anthaxia*, *Evagora*, *Sphenoptera*, *Cratomerus*, *Sponsor*, *Cisseis*, *Castalia*, *Poecilnota*, *Zemina*, *Stenogaster*, *Pseudagrilus*, *Amorphosoma*, *Eumerus*, *Coraebus*, *Ethon*, *Brachys* (pp. 1–3) (genera paged separately). P. Duménil, Paris.
- Guérin-Ménéville, F.E.** 1830. Crustacées, Arachnides et Insectes. In Duperrey, L.J., *Voyage autour du monde sur la Coquille*. Zoologie, vol. 2, pt. 2, div. 1. 319 pp., 22 color plates, in Folia.
- Holyński, R.** 1988. Remarks on the general classification of Buprestidae Leach as applied to Maoraxiina Hol. *Folia Entomologica Hungarica*, **49**: 49–54.
- Holyński, R.** 1993. A reassessment of the internal classification of the Buprestidae Leach (Coleoptera). *Crystal, series Zoologica*, no. 1: 1–42.
- Kirby, W.** 1818. A century of insects, including several new genera described from his cabinet. *Transactions of the Linnean Society of London*, **12**: 375–453.
- Kubáň, V., Majer, K. & Kolibáč, J.** 2001. Classification of the tribe Coraebini Bedel, 1921 (Coleoptera, Buprestidae, Agrilinae). *Acta Musei Moraviae, Scientiae biologicae (Brno)*, **85**: 185–287.

- Lacordaire, J.T.** 1857. *Histoire naturelle des insectes. Genera des Coléoptères ou exposé méthodique de critique de tous les genres proposés jusqu'ici dans cet ordre d'insectes*, (Contenant les familles des buprestides, throschides, eucnémides, élatérides, cébrionides, cérophytides, rhipicérides, dascyllides, malacodermes, clérides, lyméxylones, cupésides, ptiniores, bostrichides et cissides), vol. 4. Pp. 1–554. Roret, Paris.
- Lawrence, J.F. & Britton, E.B.** 1994. *Australian Beetles*. 192 pp. Melbourne University Press.
- Mannerheim, C.G. von.** 1837. Enumération des Buprestides, et description de quelques nouvelles espèces de cette tribu de la famille des Sternoxes, de la collection de M. Le Comte Mannerheim. *Bulletin de la Société Impériale des Naturalistes de Moscou*, **8**: 1–126.
- Obenberger, J.** 1930. Buprestidae 2. Pp. 213–568 in Junk, W. & Schenkling, S. (Eds.), *Coleopterorum Catalogus*, vol. 12, pars 111. W. Junk, Berlin.
- Obenberger, J.** 1934. Buprestidae 4. Pp. 782–934 in Junk, W. & Schenkling, S. (Eds.), *Coleopterorum Catalogus*, vol. 12, pars 143. W. Junk, 's-Gravenhage.
- Saunders, E.** 1871. *Catalogus Buprestidarum Synonymicus et Systematicus*. 171 pp. J. Janson, London.

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Case 3367***Curculio contractus* Marsham, 1802 (currently *Ceutorhynchus contractus*; Insecta, Coleoptera): proposed conservation of the specific name**

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Abstract. The purpose of this application, under Article 23.9.3 of the Code, is to conserve the specific name *Curculio contractus* Marsham, 1802 for a well-known species of European weevil by suppression of a little used senior primary homonym *Curculio contractus* Geoffroy in Fourcroy, 1785. A lectotype is designated for *Curculio contractus* Marsham, 1802. The replacement proposed by Colonnelli (2004) of *Curculio contractus* Marsham, 1802 by *Ceuthorhynchus pallipes* Crotch, 1866, which is applied only to a geographically very restricted taxon of doubtful status, is opposed.

Keywords. Nomenclature; taxonomy; CURCULIONIDAE; *Curculio*; *Ceutorhynchus*; *Ceutorhynchus contractus*; *Ceutorhynchus minutus*; *Ceutorhynchus pallipes*; Europe; weevil.

1. Marsham (1802, p. 250) described *Curculio contractus* (currently *Ceutorhynchus contractus*), a common European species of CURCULIONIDAE. Marsham's collection was mostly acquired by J.F. Stephens, whose collection is in the Natural History Museum, London. Marsham's specimens are usually distinguished by a small circular, white label (Hammond, 1972). In the Stephens collection there are nine specimens standing under the name *contractus*. One of these bears Marsham's white label; it is placed as the middle insect in the top row of three (number 2). These insects are all *Curculio contractus* (currently *Ceutorhynchus contractus*), with the exception of one specimen which is a small *Curculio obstrictus* Marsham, 1802 (currently *Ceutorhynchus obstrictus*) (number 9); this specimen is not the one bearing Marsham's label. Specimen number 2, bearing Marsham's white label, is here designated the lectotype of *Curculio contractus* Marsham, 1802.

2. The name *contractus* Marsham, 1802 has been used consistently in various combinations for nearly 200 years; a list of 161 references, including citations in the economic literature, is held by the Commission Secretariat.

3. However, it has long been known that the name *Curculio contractus* Marsham, 1802 is a junior primary homonym of *Curculio contractus* Geoffroy in Fourcroy, 1785 (p. 126) (e.g. Kloet & Hincks, 1945; Pope, 1977; Colonnelli, 1998). The last author discussed the issue in detail, pointing out that the identity of *Curculio contractus* Geoffroy in Fourcroy could not be ascertained, though he stated that it was certainly not a species of *Ceutorhynchus*. Colonnelli concluded that, under the Code and 'although this is not in the interest of stability', Marsham's name should be rejected

because of homonymy with *Curculio contractus* Geoffroy in Fourcroy, 1785 and also because of priority of the name *Curculio minutus* Reich, 1797 (p. 11) (Colonnelli, 1998, p. 112). According to Colonnelli (1998) the synonymy between *Curculio minutus* Reich, 1797 and *Curculio contractus* Marsham, 1802 was established by Sturm (1843, p. 222) and the older name was used by Gistel (1856, p. 245).

4. More recently, it has been shown by Colonnelli (2004) that *Curculio minutus* Reich, 1797 is a junior primary homonym of *Curculio minutus* Drury, 1773 (currently *Arrenodus minutus*) (p. 95 and index) and therefore is currently invalid.

5. Colonnelli (2004, p. 45) proposed using *Ceutorhynchus pallipes* Crotch, 1866 (p. 133) (originally *Ceuthorhynchus pallipes*) to replace *Ceutorhynchus contractus* (Marsham, 1802) and *Ceutorhynchus minutus* (Reich, 1797). Although it has been suggested that at the time of Crotch's publication the status of the form *pallipes* was infrasubspecific, Crotch's *Ceuthorhynchus pallipes* was clearly established as a species-group name. Crotch (1866, p. 133) wrote "C. pallipes. – Under this name I have intended to designate the curious variety found hitherto in Lundy Island by Mr. Wollaston. It resembles C. contractus in all particulars, but has perfectly pale legs, and is certainly quite mature, several specimens having been captured". Crotch used the term 'variety' in a vernacular rather than taxonomic sense, as he did not say what species it is a 'variety' of, and expressed it as a binomen.

6. However, Crotch's intention, clearly set out in his paper, was to apply his name (*Ceuthorhynchus pallipes*) to a taxon restricted to the small island of Lundy which lies off the north coast of the county of Devon in south-west England. With one exception (see para. 7) the name *pallipes* has only ever been applied to this taxon (e.g. Mitford, 1913; Blair, 1932; Hoffmann, 1954; Compton et al., 2002).

7. Lack (1931, p. 279) applied the name *Ceuthorhynchus contractus* var. *pallipes* Crotch, 1866 to two specimens he collected on the remote island of St. Kilda off the western coast of Scotland. These are currently referred to *Ceutorhynchus insularis* Dieckmann, 1971, of which they are paratypes. They also represent the subspecies *C. i. testaceipes* Dieckmann, 1971.

8. *Ceutorhynchus pallipes* is unlikely to be a subspecies of *Ceutorhynchus contractus* as it is sympatric on Lundy Island with the nominotypical form (Mitford, 1913; Compton et al., 2002). However, its status is the subject of ongoing research, including molecular studies (Compton et al., 2002) and therefore at present its taxonomic status is a matter of uncertainty. These studies include investigation of a range of island taxa in *Ceutorhynchus*, and are important in determining biogeography, dispersal, colonisation and conservation of biodiversity in the group. It would clearly be very confusing to substitute the name *Ceutorhynchus pallipes* Crotch, 1866 for the species known for so long as *Ceutorhynchus contractus* (Marsham, 1802). Moreover, the name *pallipes* Crotch, 1866 may not itself prove stable as a result of current research. Appendix B (1) of the Code states: 'it is of especial importance that a name should not be transferred to a taxon distinct from that to which it is generally applied'.

9. The name *Curculio contractus* Geoffroy in Fourcroy, 1785 does not qualify for reversal of precedence under the conditions of Article 23.9.1.1, as it was used as a valid name by Colonnelli (1998) who acknowledged that *Curculio contractus* Geoffroy in Fourcroy, 1785 is a senior primary homonym of *Curculio contractus* Marsham, 1802 and suggested that the name *Curculio contractus* Marsham, 1802 has

to be replaced. The name *Curculio minutus* Reich, 1797 does not currently threaten *Curculio contractus* Marsham, 1802 because *Curculio minutus* Reich, 1797 is an invalid name—a junior homonym of *Curculio minutus* Drury, 1773.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the name *contractus* Geoffroy in Fourcroy, 1785, as published in the binomen *Curculio contractus*, and all uses of the name *Curculio contractus* before Marsham (1802) for the purposes of both the Principle of Priority and the Principle of Homonymy;
- (2) to place on the Official List of Specific Names in Zoology the name *contractus* Marsham, 1802, as published in the binomen *Curculio contractus*;
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *contractus* Geoffroy in Fourcroy, 1785, as published in the binomen *Curculio contractus* and as suppressed in (1) above.

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References

- Blair, K.G.** 1931. The beetles of the Scilly Islands. *Proceedings of the Zoological Society of London*, **1931**(4): 1211–1258.
- Colonnelli, E.** 1998. Systematic and synonymic notes on Ceutorhynchinae, with lectotype and neotype designations, and descriptions of three new genera (Coleoptera, Curculionidae). *Fragmenta Entomologica*, **30**(1): 105–175.
- Colonnelli, E.** 2004. *Catalogue of Ceutorhynchinae of the World with a Key to Genera*. 124 pp. Argania Editio, Barcelona.
- Compton, S.G., Key, R.S & Key, R.J.D.** 2002. Conserving our little Galapagos – Lundy, Lundy Cabbage and its beetles. *British Wildlife*, **13**(3): 184–190.
- Crotch, G.R.** 1866. Revision of the 'Catalogue of British Coleoptera'. *The Entomologist*, **3**: 133–137.
- Dieckmann, L.** 1971. *Ceutorhynchus*-Studien (Coleoptera: Curculionidae). *Beiträge zur Entomologie*, **21**(7–8): 581–595.
- Drury, D.** 1770–1773. *Illustrations of Natural History*, vol. I. xxvii, 130, [2 pages of unpaginated index at the end of the volume published in 1773] pp. Printed for The Author and sold by White, London.
- Fourcroy, A.F. de.** 1785. *Entomologia parisiensis: sive Catalogus Insectorum quae in Agro Parisiensi reperiuntur: secundum methodum Geoffraeanam in sectiones, genera et specibus distributus: cui addita sunt nomina trivialia et fere trecentae novae species*. vii, 544 pp. Paris.
- Gistel, J.** 1856. *Die Mysterien der europäischen Insectenwelt*. xii, 530 pp. Dannheimer, Kempten.
- Hammond, P.** 1972. On the type material of Staphylinidae (Col.) described by T. Marsham and J. F. Stephens. *Entomologist's Gazette*, **23**: 129–135.
- Hoffmann, A.** 1954. *Faune de France 59 Coléoptères Curculionides (Deuxième Partie)*. 1208 pp. Éditions Paul Lechevalier, Paris.
- Kloet, G.S. & Hincks, W.D.** 1945. *A Check List of British Insects*. lix, 483 pp. Kloet & Hincks, Stockport.
- Lack, D.** 1931. Coleoptera on St. Kilda in 1931. *Entomologist's Monthly Magazine*, **67**: 276–279.
- Marsham, T.** 1802. *Coleoptera Britannica, sistens Insecta Coleoptera Britanniae indigena, secundum methodum Linnaeanam disposita*. xxxi, 547 pp. J. White, London.

- Mitford, R.S.** 1913. Coleoptera in Lundy Island. *Entomologist's Record and Journal of Variation*, **25**: 265–267.
- Pope, R.D.** (Ed.). 1977. Kloet & Hincks. A Check List of British Insects (Second, revised edition). Pt. 3: Coleoptera and Strepsiptera. *Handbooks for the Identification of British Insects*, **11**(3): i-xiv, 1–105.
- Reich, G.C.** 1797. *Mantissae insectorum iconibus illustratae species novae aut nondum depictis exhibentis*. Fasciculus I. Felsecker, Norimbergae.
- Sturm, J.** 1843. *Catalog der Kaefer-Sammlung von Jacob Sturm. Mit 6 ausgemalten Kupfer-tafeln*. 386 pp. Nürnberg.

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Case 3352***Productus compressus* Waagen, 1884 (currently *Compressoproductus compressus*; Brachiopoda): proposed conservation of the specific name**

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Abstract. The purpose of this application, under Articles 23.9.3 and 81.2.1 of the Code, is to conserve the specific name *Productus compressus* Waagen, 1884 for the type species of the Permian brachiopod genus *Compressoproductus* Sarytcheva in Sarytcheva et al., 1960. The name is a junior primary homonym of *Productus compressus* Say in James, 1823, which has been seldom used since it was established. Waterhouse & Piyasin (1970) proposed *Compressoproductus morahpressus* as a substitute name for *Productus compressus* Waagen, 1884, but this name has never been used other than by Waterhouse (1978, 1983). It is proposed that the name *Productus compressus* Waagen, 1884 be conserved by suppression of *Productus compressus* Say, 1823.

Keywords. Nomenclature; taxonomy; Brachiopoda; *Productus*; *Compressoproductus*; *Compressoproductus compressus*; *Compressoproductus morahpressus*; Permian.

1. *Productus compressus* Waagen, 1884 (p. 710, pl. 81, figs. 1, 2) was described in detail and illustrated from the Permian of the Salt Range (Pakistan). It is a well-recognised linoproductoid brachiopod species.

2. Sarytcheva in Sarytcheva et al. (1960, p. 231) designated *P. compressus* Waagen, 1884 as the type species of *Compressoproductus*, which is a commonly accepted semi-cosmopolitan linoproductoid genus of the Permian. The names *P. compressus* Waagen, 1884 and *Compressoproductus compressus* (Waagen, 1884) have been widely used in major taxonomic studies including the First and Second Editions of the *Treatise on Invertebrate Paleontology* (e.g. Muir-Wood & Cooper, 1960, p. 319; Muir-Wood & Williams, 1965, p. 507; Brunton et al., 2000, p. 546). This name has previously been reclassified within the genus *Striatifera* Chao, 1927 (type species *Mytilus striatus* Fischer de Waldheim, 1837) by some authors (Chao, 1927, p. 99; Reed, 1931, p. 12; Licharew, 1937, p. 112).

3. Prior to Waagen (1884), *Productus compressus* Say was proposed in James (1823, p. 150) with a brief descriptive note and no illustration, based on material from the Rocky Mountains. Nevertheless, a modern definition of *P. compressus* Say (supposedly of a late Palaeozoic age) would not be possible on the information provided by Say in James (1823), and the specific name has not been used as valid except by Waterhouse & Piyasin (1970) and Branson (1948, pp. 456, 535) who accepted that *P. compressus* Waagen, 1884 is a junior primary homonym of

P. compressus Say in James, 1823. This fact, however, has largely been ignored, except by Waterhouse & Piyasin (1970) as outlined below. The above two instances of using *P. compressus* Say in James, 1823 as a valid name after 1899 mean that the conditions of Article 23.9.1.1 of the Code (Reversed Precedence) are not met and the case is referred to the Commission for a ruling.

4. Waterhouse & Piyasin (1970, p. 133) proposed a new substitute name *Compressoproductus morahpressus* for *P. compressus* Waagen, 1884 and designated it the type species of *Compressoproductus*. *C. morahpressus* is currently the valid name for Waagen's nominal species-group taxon under Articles 23.3.5 and 60.3 of the Code (Junior homonyms without synonyms), although, under Article 67.1.2 (The name of the type species), it is not the type species of *Compressoproductus*, because the name of a type species of a genus remains unchanged even when it is a junior homonym (*P. compressus* Waagen, 1884 in the current case). However, to my knowledge only Waterhouse (1978, p. 77; 1983, p. 129) subsequently adopted the name *C. morahpressus*. In addition, Waterhouse & Piyasin (1970) selected the lectotype from syntypes of Waagen's *compressus*, and this remains valid for this nominal species under Articles 72.7 and 74.1 (Name-bearing types of new replacement names).

5. From the above, it is seen that the senior homonym *Productus compressus* Say in James, 1823 is not in use. *Compressoproductus morahpressus* Waterhouse & Piyasin, 1970 (the valid objective synonym of *Productus compressus* Waagen, 1884) has also not commonly been adopted by taxonomists, who continued using the names *Productus compressus* Waagen, 1884 or *Compressoproductus compressus* (Waagen, 1884) after the replacement name was introduced (e.g. Cooper & Grant, 1975, p. 1205; Jin & Hu, 1978, p. 115; Licharew & Kotljar, 1978, p. 99; Jin et al., 1979, p. 94; Zhan, 1979, p. 90; Liu et al., 1982, p. 188; Wang et al., 1982, p. 225; Wang, 1984, p. 196; Liang, 1990, p. 209; Shen & He, 1994, p. 160; Zeng et al., 1995, p. 23; Leven, 1997, p. 24; Brunton et al., 2000, p. 546; Tazawa et al., 2000, p. 9; Shi et al., 2003, p. 1059; Wang & Zhang, 2003, p. 112). It is therefore desirable for reasons of stability to retain the current usage of *Productus compressus* Waagen, 1884 by suppression of the senior homonym *Productus compressus* Say in James, 1823.

6. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to suppress the name *compressus* Say in James, 1823, as published in the binomen *Productus compressus*, and all uses of the name before that by Waagen (1884) for the purposes of both the Principle of Priority and the Principle of Homonymy;
- (2) to place on the Official List of Specific Names in Zoology the name *compressus* Waagen, 1884, as published in the binomen *Productus compressus* (the specific name of the type species of *Compressoproductus Sarytcheva* in Sarytcheva et al., 1960);
- (3) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the following names:
 - (a) *compressus* Say in James, 1823, as published in the binomen *Productus compressus* and as suppressed in (1) above;
 - (b) *morahpressus* Waterhouse & Piyasin, 1970, as published in the binomen *Compressoproductus morahpressus* (a junior synonym of *Productus compressus* Waagen, 1884).

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References

- Branson, C.C.** 1948. Bibliographic index of Permian invertebrates. *Geological Society of America Memoir*, vol. 26. 1049 pp.
- Brunton, C.H.C., Lazarev, S.S., Grant, R.E. & Jin, Y.** 2000. Suborder Productidina. Pp. 424–618 in Kaesler, R.L. (Ed.), *Treatise on Invertebrate Paleontology, Part H, Brachiopoda Revised*, vol. 3. 469 pp. Geological Society of America and University of Kansas, Lawrence.
- Chao, Y.T.** 1927. Productidae of China, Part 1: Producti. *Palaeontologia Sinica, series B*, vol. 5 (fascicle 2). 244 pp.
- Cooper, G.A. & Grant, R.E.** 1975. Permian brachiopods of West Texas III (Parts 1 and 2). *Smithsonian Contributions to Paleobiology*, **19**: 795–1921.
- Fischer von Waldheim, G.** 1837. *Oryctographie du gouvernement de Moscou*. 2nd ed. 202 pp., pls. 20–26. Société Imperiale des Naturalistes de Moscou, Moscow.
- James, E.** 1823. *Account of an Expedition from Pittsburgh to the Rocky Mountains, performed in the Years 1819 and '20, by order of the Hon. J.C. Calhoun, Sec'y of War: under the command of Major Stephen H. Long, from the notes of Major Long, Mr. T. Say, and other gentlemen*, vol. 1. 503 pp. H.C. Carey & I. Lea, Philadelphia.
- Jin, Y. & Hu, S.** 1978. Brachiopods of the Kuhfeng Formation in South Anhui and Nanking Hills. *Acta Palaeontologica Sinica*, **17**: 101–127.
- Jin, Y., Ye, S., Xu, H. & Sun, D.** 1979. Brachiopoda. Pp. 60–225 in Nanjing Institute of Geology and Palaeontology and Qinghai Institute of Geosciences (Eds.), *Paleontological Atlas of Northwest China, Qinghai Province, vol. 1: Lower Paleozoic–Cenozoic*. 393 pp., 96 pls. Geological Press, Beijing.
- Leven, E.Ja.** 1997. Permian stratigraphy and Fusulinida of Afghanistan with their paleogeographic and paleotectonic implications. *Geological Society of America Special Paper*, 316. 134 pp.
- Liang, W.** 1990. Lengwu Formation of Permian and its Brachiopod Fauna in Zhejiang Province. *Geological Memoirs*, ser. 2, no. 10. 522 pp., 84 pls. Geological Publishing House, Beijing.
- Licharew, B.K.** 1937. Brachiopody permskikh otlozhenii SSSR. Vypusk 1. Permskie Brachiopoda Severnogo Kavkaza. Semeistva: Chonetidae Hall et Clarke i Productidae Gray [Brachiopoda of the Permian system of USSR, Fasc. 1. Permian Brachiopoda of North Caucasus. Families: Chonetidae Hall et Clarke and Productidae Gray]. *Monografii po paleontologii SSSR [Paleontology of USSR Monographs]*, vol. 39, 152 pp.
- Licharew, B.K. & Kotljarskiy, G.V.** 1978. Permskie brachiopody yuzhnogo Primor'ya. Pp. 63–75, 96–99 in Popeko, L.I. (Ed.), *Verkhniy Paleozoi Severo-Vostochnoi Azii*. 128 pp. AN SSSR DNTs Institut Tektoniki i Geofiziki, Vladivostok.
- Liu, Z., Tan, Z. & Ding, Y.** 1982. Brachiopoda. Pp. 172–216 in Geological Bureau of Hunan (Ed.), *Palaeontological Atlas of Hunan. Geological Memoirs*, ser. 2, no. 1. 996 pp., 40 pls. Geological Publishing House, Beijing.
- Muir-Wood, H.M. & Cooper, G.A.** 1960. Morphology, classification and life habits of the Productoidea (Brachiopoda). *Geological Society of America Memoir*, vol. 81. 447 pp., 135 pls.
- Muir-Wood, H.M. & Williams, A.** 1965. Strophomenida. Pp. 361–521 in Moore, R.C. (Ed.), *Treatise on Invertebrate Paleontology, Part H Brachiopoda*, vol. 1. 521 pp. Geological Society of America and University of Kansas Press, New York.
- Reed, F.R.C.** 1931. New fossils from the *Productus* Limestones of the Salt Range, with notes on other species. *Memoirs of the Geological Survey of India, Palaeontologia Indica, New Series*, **17**: 1–56.

- Sarytcheva, T.G., Licharew, B.K. & Sokolskaja, A.N. 1960. Otriad Productida. Pp. 221–238 in Orlov, Y.A. (Ed.), *Osnovy Paleontologii, Mshanki-Brakhiopody*. 343 pp. Izdatel'stvo Akademii Nauk SSSR, Moscow.
- Shen, S. & He, X. 1994. The brachiopod assemblages from the Changhsingian to lowermost Triassic of Southwest China and correlations over the Tethys. *Newsletters on Stratigraphy*, **31**: 151–165.
- Shi, G.R., Shen, S. & Zhan, L. 2003. A Guadalupian–Lopingian (Middle to Late Permian) brachiopod fauna from the Juripu Formation in the Yarlung-Zangbo Suture Zone, southern Tibet, China. *Journal of Paleontology*, **77**: 1053–1068.
- Tazawa, J., Takizawa, F. & Kamada, K. 2000. A Middle Permian boreal-Tethyan mixed brachiopod fauna from Yakejima, southern Kitakami Mountains, NE Japan. *Science Reports of Niigata University, ser. E (Geology)*, **15**: 1–21.
- Waagen, W. 1884. Salt Range fossils, *Productus* Limestone fossils, Brachiopoda. *Memoirs of the Geological Survey of India, Palaeontologia Indica, ser. 13*, **1**(part 4) (fascicle 3–4): 547–728.
- Wang, G., Liu, Q., Ching, Y., Hu, S., Liang, W. & Liao, Z. 1982. Phylum Brachiopoda. Pp. 186–256. pls. 74–102 in Nanjing Institute of Geology and Mineral Resources (Ed.), *Paleontological Atlas of East China, Volume 2 (Late Paleozoic)*. 495 pp. Geological Publishing House, Beijing.
- Wang, C. & Zhang, C. 2003. *Brachiopod Faunas from the Tethys*. 210 pp., 50 pls. Geological Publishing House, Beijing.
- Wang, S. 1984. Brachiopoda. Pp. 134–236 in Regional Geological Surveying Team of Hubei (Ed.), *Palaeontological Atlas of the Hubei Province*. 812 pp. Hubei Science and Technology Press, Wuhan.
- Waterhouse, J.B. 1978. Permian Brachiopoda and Mollusca from North-West Nepal. *Palaeontographica, Abteilung A*, **160**: 1–175.
- Waterhouse, J.B. 1983. A Late Permian lyttoniid fauna from Northwest Thailand. *Papers of Department of Geology, University of Queensland*, **10**: 111–153.
- Waterhouse, J.B. & Piyasin, S. 1970. Mid-Permian brachiopods from Khao Phrik, Thailand. *Palaeontographica, Abteilung A*, **135**: 83–197.
- Zeng, Y., He, X. & Zhu, M. 1995. *Permian Brachiopods and Community Succession in the Huayin Mountains, Sichuan*. 187 pp. China University of Mineralogy Press, Xuzhou.
- Zhan, L. 1979. Brachiopoda. Pp. 61–100 in Hou, H., Zhan, L. & Chen, B. (Eds.), *The Coal-Bearing Strata and Fossils of the Late Permian from Guangtung*. 166 pp., 47 pls. Geological Publishing House, Beijing.

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Case 3356***Schizechinus* Pomel, 1869 (Echinodermata, Echinoidea): proposed conservation of usage by suppression of *Echinus serresii* Des Moulins, 1837 and designation of *Psammechinus serresii* Desor, 1856 as the type species**

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Abstract. The purpose of this application, under Article 69 of the Code, is to conserve the prevailing usage of *Schizechinus* Pomel, 1869 for a genus of fossil toxopneustid echinoids from the Miocene of the Mediterranean region and possibly the Neogene of Australia. No type species was designated in the original description, while the subsequent designation of *Anapesus tuberculatus* Pomel, 1887 by Lambert & Thiéry (1914) is invalid because it was not an originally included nominal species. Acceptance of the originally included fossil species *Echinus serresii*, whether attributed to Des Moulins (1837) or Agassiz & Desor (1846), as the type species of *Schizechinus* would destabilize the nomenclature by completely changing the identity of this genus from that in current usage, rendering it a nomen dubium. It is therefore proposed that the Commission designates *Psammechinus serresii* Desor, 1856 as the type species of *Schizechinus*. In order to stabilise the identity of the type species we designate a neotype.

Keywords. Nomenclature; taxonomy; Echinodermata; Echinoidea; TOXOPNEUSTIDAE; *Schizechinus*; *Schizechinus serresii*; *Schizechinus delphinus*; Neogene; Miocene; Mediterranean.

1. Pomel (1869, p. 42) established the genus *Schizechinus* for a group of fossil and extant echinoid species that had previously been attributed to *Psammechinus* Agassiz in Agassiz & Desor, 1846. He noted as belonging to *Schizechinus* four species from Agassiz & Desor's (1846) catalogue — *Echinus serresii* Des Moulins, 1837 (fossil), *E. semituberculatus* Agassiz & Desor, 1846 (extant), *E. variegatus* Lamarck, 1816 (extant) and *E. excavatus* de Blainville, 1834 (extant) — but did not select a type species. However, from the discussion it is evident that he considered the fossil species as more typical, since later on he points out (1869, p. xlii) how the three extant species differ somewhat from the genus description that he has given.

2. Later works by Pomel (1883, 1887) treated *Schizechinus* as a synonym of *Anapesus* Holmes, 1860, which is a junior synonym of *Arbacia* Gray, 1835 (see

Mortensen, 1935, p. 566; Cooke, 1959, p. 19; Fell & Pawson in Moore, 1966, p. U409). No type species for *Schizechinus* was given until Lambert & Thiéry (1914, p. 247) invalidly designated *Anapesus tuberculatus* Pomel, 1887. This designation has been accepted by most subsequent authors (e.g. Mortensen, 1943, p. 463; Fell & Pawson in Moore, 1966, p. U429), but is not valid since it was not an originally included species. It is thus still necessary to fix a type species for *Schizechinus*.

3. Today the use of the genus *Schizechinus* is restricted to a small group of fossil echinoids from the Miocene of the Mediterranean region (see Szörényi, 1953; Montenat & Roman, 1970; Kier, 1972; Challis, 1979; Maćczyńska, 1979, 1988; Menesini, 1979a, b; Boggild & Rose, 1984; Borghi, 1993; Schmid et al., 2001; Kroh, 2005) and possibly Australasia (McNamara & Kendrick, 1994; Lindley, 2003), although the latter may not be congeneric.

4. To provide for stability in nomenclature, and following Recommendations 69.A.3 and 69.A.10 of the Code, the three extant species mentioned by Pomel are excluded from consideration. The fourth species, *Echinus serresii* des Moulins, 1837 would be the logical choice for the type species designation; however this poses some problems.

5. Des Moulins (1837, p. 126), while mentioning that his own material came from Martigues (a Burdigalian [Early Miocene] locality in the southern Rhône Basin, ~25 km WNW of Marseilles, France), did not describe or illustrate it, but established *Echinus serresii* by indication. He refers to two papers: 'Oursin fossile. Faujas, Maëstricht. p. 173. pl. 30. f. 11.' and 'Echinus . . . M.^{el} de Serres. Géognos. p. 156 [sic]'. The Faujas (1799) reference is to a partial regular echinoid from the Maastrichtian of St Pierre. The illustration is very poor but shows multiple subequal interambulacral tubercles on the plates and relatively wide ambulacral zones with a double column of ambulacral tubercles. The most likely candidate for this is *Orthopsis miliaris* (d'Archiac, 1835), but there must be great doubt attached here, since the drawings are so poor. The Serres (1829) reference is not to p. 156, as cited, but must be a mistake for p. 265. Here Serres describes from the rocks of Martigues an *Echinus*. All that is stated is '*Echinus*. Une espèce fossile de Martigues, paraissant se rapporter à l'Oursin figure dans l'Encyclopédie, planch. 141, fig. 6. C.' The 'C' does not refer to a fig. 6.C but is an abbreviation used by Serres (1829) to denote the provenance of the specimens (see Serres, 1829, p. 97, footnote 1). No figure is given, nor other indication of the form of this species. The reference Serres made is presumably to the *Encyclopédie méthodique*, where the echinoids were described by Deslongchamps (1824) based on Bruguière's drawings. On pl. 141, fig. 6 of the 1824 edition (Bruguière, 1824) there is an extant regular echinoid that is referred to as '*Echinus sagus* N'. The upper surface is illustrated. The illustration is insufficient for determination and the identity of the figured specimen remains dubious. If figure 7 is related (it is the same size and shows the oral surface, but is not listed in the explanation to the plate), then this looks like the oral surface of a species of *Arbacia*, with a very large peristome opening with a rather prominent scalloped margin. The identity of *Echinus serresii* Des Moulins, 1837 is thus ambiguous, being based on two indeterminate echinoids of widely differing ages.

6. Agassiz & Desor (1846, p. 369) transferred *Echinus serresii* to the genus *Psammechinus* and restricted it to the specimens of Des Moulins (1837) from the Molasse of Martigues and Clansayes. Yet they added no new data or description

besides mentioning a small morphological detail that distinguished it from another common species of the area. They also declared '*Echinus delphinus* Defrance, 1827' a synonym of *serresii*. D'Orbigny (1852, p. 142) simply listed the species referring to the Des Moulins and Agassiz & Desor references. It was not until the compendium of Desor (1858, p. 120, pl. 18, figs. 1–3) that the species *serresii* was described and illustrated, using specimens from the Molasse of Martigues and Clansayes, Drome, France.

7. Most authors (e.g. Lambert, 1906; Philippe, 1998) referred the material described as *Psammechinus serresii* by Desor (1856, p. 120) to the nomen nudum '*Psammechinus delphinus* (Defrance, 1827)'. *Echinus delphinus* Defrance is a manuscript name, thus not available (see also Philippe, 1998, p. 75). Lambert (1906, p. 72) argued that the figured specimen of Desor (1856, pl. 18, figs. 1–3), in contrast to the description, does not belong in that species, but rather was a misidentified *Psammechinus dubius*. Unfortunately, Desor's figured specimen could not be located by Philippe (1998) or the present authors.

8. The generic attribution to *Psammechinus* by Agassiz & Desor (1846, p. 369) was accepted by most subsequent authors. Lambert (1906, p. 68), in a comparison of the genera *Anapesus*, *Psammechinus* and *Schizechinus*, stated that '*Psammechinus Serresii* . . . est en réalité par les caractères de son péristome un vrai *Psammechinus*'. This was supported by Lambert (1910) and Philippe (1998) in two revisions of the *Neogene Echinoids of the Rhône Basin*. Yet, both authors mention that it 'forme un type bien particulier' within that genus. A re-examination of material from Clansayes (considered as the type-locality of *Echinus delphinus* by Philippe (1998, p. 76)) housed at the Muséum national d'Histoire naturelle clearly shows that the material is not congeneric with *Psammechinus* but fits well within the current usage of the genus *Schizechinus*.

9. We have been unable to find any of the type series of *Psammechinus serresii* Desor, 1856. According to Desor (1856) his material came from his own collection and those of Des Moulins and Michelin, which are housed at the Muséum d'Histoire Naturelle de Neuchâtel, Muséum National d'Histoire Naturelle de Paris and Muséum de Bordeaux respectively (Lambert & Jeannet, 1928; Prieur, 1980). Collection managers at Neuchâtel (Dr. Stefan Bucher) and Paris (Dr. Jean-Paul Saint Martin) were unable to locate Desor's types in their respective collections. In order to stabilise that name we hereby designate specimen no. A20616-A from the Muséum National d'Histoire Naturelle, Paris, Département des Sciences de la Terre (from batch A20616 with 9 specimens; collection Lambert n° L14.822) from the Burdigalian (Lower Miocene) of Clansayes, Drôme, France, as the neotype. The neotype chosen came from one of the localities mentioned by Desor (1856) and is consistent with the description and illustrations provided by that author.

10. Diagnosis for *Schizechinus* Pomel, 1869: Medium sized toxopneustid with multiple, subequal primary tubercles on the interambulacral plates forming regular vertical series at the ambitus; tubercles imperforate and non-crenulate; apical disc hemicyclic with oculars I and V insert; peristome with distinct, moderately deep gill slits. Differs from *Psammechinus* by its hemicyclic apical disc and more strongly expressed buccal notches and from *Sphaerechinus* by its trigeminate ambulacral plates.

11. In conclusion, we propose the suppression for the purposes of the Principle of Priority but not for those of the Principle of Homonymy of *Echinus serresii* Des

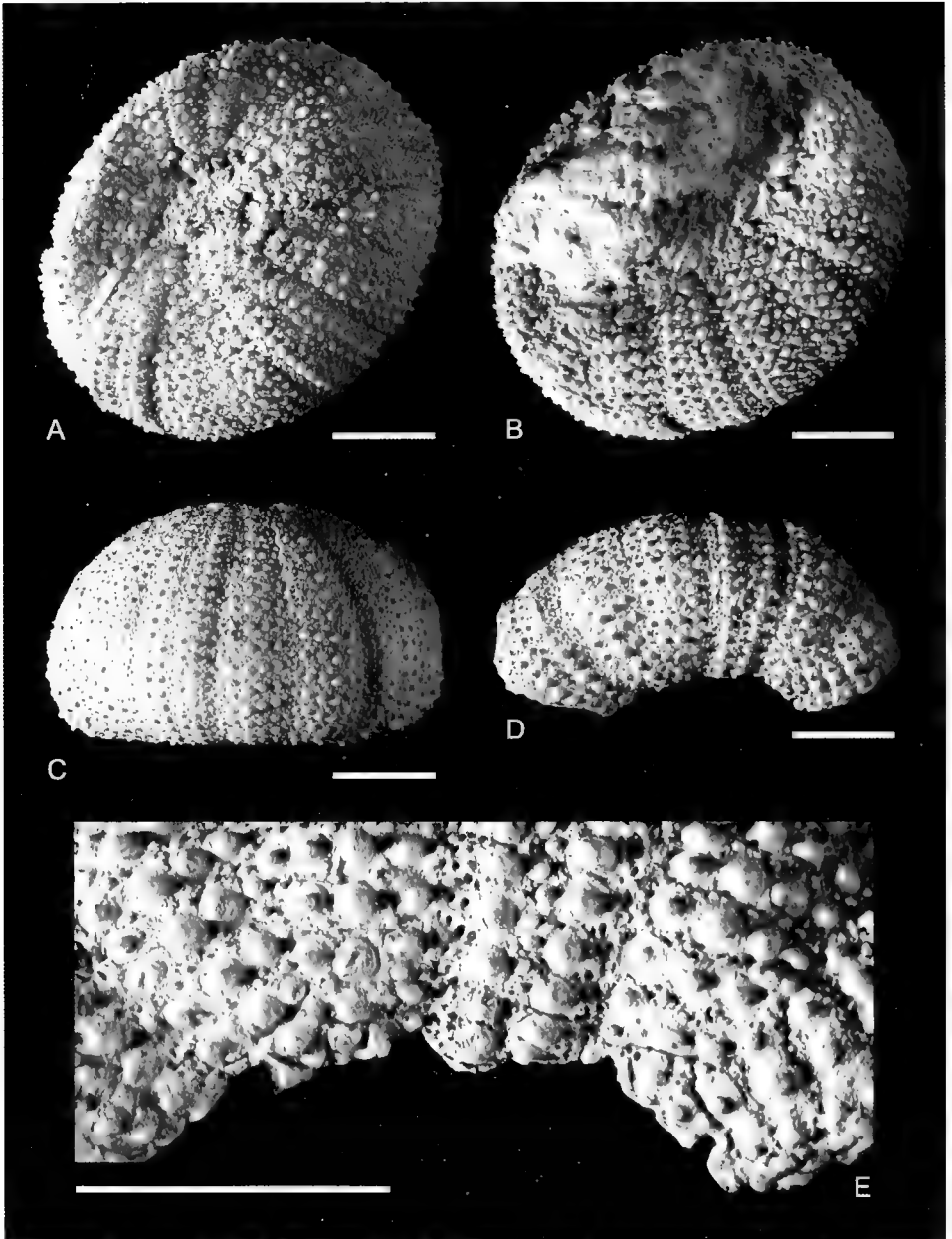


Fig. 1. *Schizechinus serresii* (Desor, 1856). A-B: aboral (A) and oral (B) views of the neotype (MNHN-Sciences de la Terre A20616-A); C: lateral view of MNHN-Sciences de la Terre A20616-B; D-E: oral view (D) and close-up of the peristomal margin with buccal notches (E) of MNHN-Sciences de la Terre A20346-A. Specimens whitened with ammonium chloride; C-E depict resin casts of the actual specimens. Scale bars 1 mm.

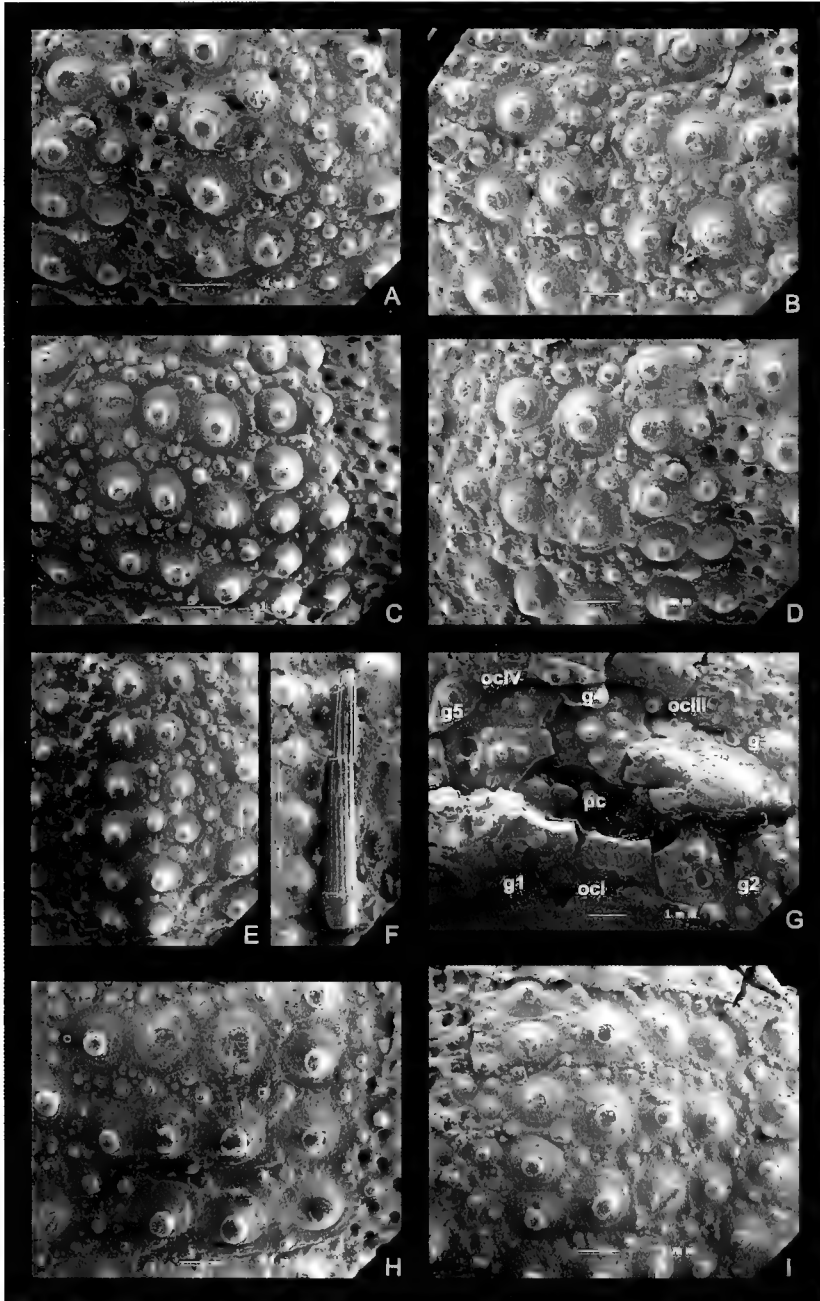


Fig. 2. *Schizechinus serresii* (Desor, 1856). A-F: details of the tuberculation in the neotype (MNHN-Sciences de la Terre A20616-A): supraambital ambulacra (A, E), adapical interambulacra (B), supraambital interambulacra (C), ambital interambulacra (D), primary spine (F); G: apical disc of MNHN-Sciences de la Terre A20616-B (distorted by sediment compaction; pc = periproct; ocular plates indicated by 'oc' and genital plates by 'g' and their respective number according to the Lovenian system); H-I: tuberculation in the subambital interambulacra of MNHN-Sciences de la Terre A20346-A. All figures are SEM images of resin casts of the actual specimens.

Moulins, 1837 (p. 126) which is a hybrid species of dubious identity. This action will make invalid the name *Echinus serresii* Agassiz & Desor, 1846 (p. 369), which simply cites Des Moulins. We also propose the designation of *Psammechinus serresii* Desor, 1856 as the type-species of *Schizechinus* Pomel, 1869, thereby conserving the current usage of the name and removing any ambiguity.

12. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power:
 - (a) to suppress for the purposes of the Principle of Priority but not for those of the Principle of Homonymy the name *serresii* Des Moulins, 1837, as published in the binomen *Echinus serresii*;
 - (b) to set aside all previous fixations of type species for the nominal genus *Schizechinus* Pomel, 1869 and to designate *Psammechinus serresii* Desor, 1856 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Schizechinus* Pomel, 1869 (gender: masculine), type species by designation in (1)(b) above *Psammechinus serresii* Desor, 1856;
- (3) to place on the Official List of Specific Names in Zoology the name *serresii* Desor, 1856, as published in the binomen *Psammechinus serresii* and as defined by the neotype designated in para. 9 (above) (specific name of the type species of *Schizechinus* Pomel, 1869);
- (4) to place on the Official Index of Rejected and Invalid Specific Names in Zoology the name *serresii* Des Moulins, 1837, as published in the binomen *Echinus serresii* and as suppressed in (1)(a) above.

References

- Agassiz, L. & Desor, P.J.E. 1846–1847. Catalogue raisonné des familles, des genres, et des espèces de la classe des échinodermes. *Annales des Sciences Naturelles, Troisième Série, Zoologie*, 6(1846): 305–374, pls. 15–16, 7(1847): 129–168, 8(1847): 5–35, 355–380.
- Boggild, G.R. & Rose, E.P.F. 1984. Mid-Tertiary echinoid biofacies as palaeoenvironmental indices. *Annales Géologiques des Pays Helléniques*, 32: 57–67.
- Borghi, E. 1993. Nuove acquisizioni relative *Schizechinus serialis* Pomel, 1887. Echinodermi fossili emiliani II. *Bollettin de la Società Reggiana Scienze Naturali*, 13(2): 1–11.
- Bruguère, J.-G. 1827. Tableau Encyclopédique et méthodique des trois règnes de la nature. Vers, coquilles, mollusques et polypiers. Tome Second. In Panckoucke, C.J. (Ed.), *Encyclopédie méthodique, ou par ordre de matières; par une société de gens de lettres, des savans et d'artistes*, pls. 96–314. Agasse, Paris.
- Challis, G.R. 1979. Miocene echinoid biofacies of the Maltese Islands. *Annales Géologiques des Pays Helléniques, tome hors série*, 1: 253–262.
- Cooke, C.W. 1959. Cenozoic Echinoids of Eastern United States. *United States Geological Survey Professional Papers*, 321: 1–106.
- Deslongchamps, E. 1824. In Lamouroux, Bory de Saint-Vincent & Deslongchamps, E. 1824. Histoire naturelle des Zoophytes, ou animaux rayonnés, faisant suite à l'histoire naturelle des vers de Bruguière. Tome Second. In Panckoucke, C.J. (Ed.), *Encyclopédie méthodique, ou par ordre de matières; par une société de gens de lettres, des savans et d'artistes*. 819 pp. Agasse, Paris.
- Desor, E. 1855–1858. *Synopsis des échinides fossiles*. 68, 490 pp., 44 pls. Reinwald, Paris.
- D'Orbigny, A.D. 1852. *Prodrome de Paléontologie stratigraphique universelle des Animaux mollusques & Rayonnés, faisant suite au cours élémentaire de paléontologie*, vol. 3. Paris.
- Faujas Saint Fond, B. 1799–1802. *Histoire naturelle de la Montagne de Saint-Pierre de Maëstricht*. 263 pp. Jansen, Paris.

- Fell, H.B. & Pawson, D.L.** 1966. Echinacea. In Moore, R.C. (Ed.), *Treatise on Invertebrate Paleontology, U. Echinodermata*, 3: U367-U440, figs. 272–328. Boulder, Colorado & Lawrence, Kansas.
- Kier, P.M.** 1972. Tertiary and Mesozoic Echinoids of Saudi Arabia. *Smithsonian Contributions to Paleobiology*, 10: 1–105.
- Kroh, A.** 2005. *Catalogus Fossilium Austriae. Band 2. Echinoidea neogenica*. lvi, 210 pp., 82 pls., 94 figs., 11 tabs. Österreichische Akademie der Wissenschaften, Wien.
- Lambert, J.** 1906. Description des Echinides de la Province de Barcelone, fasc. 2–3. *Mémoires de la Société Géologique de France, Paléontologie*, 14: 59–128.
- Lambert, J.** 1910. Description des Echinides des terrains néogènes du bassin Rhône. fasc. 1. *Mémoires de la Société Paléontologique Suisse*, 37: 1–48.
- Lambert, J. & Jeannot, A.** 1928. Nouveau catalogue des moules d'échinides fossiles du Musée d'Histoire naturelle de Neuchâtel exécutés sous la direction de L. Agassiz et E. Desor. *Mémoires de la Société helvétique des Sciences naturelles*, 64, mém. 2. 233 pp.
- Lambert, J. & Thiéry, P.** 1909–1925. *Essai de Nomenclature Raisonnée des Echinides*. 607 pp., 15 pls. L. Ferrière, Chaumont.
- Lindley, I.D.** 2003. Echinoids of the Kairuku Formation (Lower Pliocene), Yule Island, Papua New Guinea: Regularia. *Proceedings of the Linnean Society of New South Wales*, 124: 137–151.
- Maćczyńska, S.** 1979. Echinoids from the Miocene deposits of the Roztocze Region, South-eastern Poland. *Prace Muzeum Ziemi*, 32: 29–36.
- Maćczyńska, S.** 1988. Echinoids from the Middle Miocene (Badenian) sands from southern Poland. *Prace Muzeum Ziemi*, 40: 59–64.
- McNamara, K.J. & Kendrick, G.W.** 1994. Cenozoic molluscs and echinoids of Barrow Island, Western Australia. *Records of the Western Australian Museum Supplement*, 51: 1–50.
- Menesini, E.** 1979a. Echinidi fossili dell'Arcipelago Maltese. I. *Atti della Società Toscana di Scienze Naturali, Memorie, Serie A*, 86: 51–64.
- Menesini, E.** 1979b. Maltese Fossil Echinoids. *Annales Géologiques des Pays Helléniques, tome hors série*, 2: 799–806.
- Montenat, C. & Roman, J.** 1970. Échinides Neogènes d'Espagne (Provinces d'Alicante et de Murcie). *Annales de Paléontologie (Invertébrés)*, 56(1): 89–138.
- Mortensen, T.** 1935. *A Monograph of the Echinoidea. II. Bothriocidaroida, Melonechinoida, Lepidocentroida, and Stirodonta*. 647 pp., 89 pls., 377 figs. Reitzel & Oxford University Press, Copenhagen & London.
- Mortensen, T.** 1943. *A Monograph of the Echinoidea, III, 2 Camarodonta*. vii, 533 pp., 329 figs., 56 pls. C.A. Reitzel, Copenhagen.
- Moulins, C. des.** 1837. Troisième Mémoire sur les Échinides. Synonymie générale. *Actes de la Société Linnéenne de Bordeaux*, 9(6): 45–364.
- Philippe, M.** 1998. Les Échinides miocènes du Bassin du Rhône: révision systématique. *Nouvelles Archives du Muséum d'Histoire Naturelle de Lyon*, 36(1–2): 3–241, 249–441.
- Pomel, A.** 1869. *Revue des échinodermes et de leur classification pour servir d'introduction à l'étude des fossiles*. i-lxvii pp. Deyrolle, Paris.
- Pomel, A.** 1883. *Classification méthodique et Genera des Echinides vivante et fossiles*. Thèses présentées à la Faculté des Sciences de Paris pour obtenir le Grade de Docteur des Sciences Naturelles, 503: 131 pp., 1 pl., 1 tab. Adolphe Jourdan, Alger.
- Pomel, A.** 1887. *Paléontologie ou description des animaux fossiles de l'Algérie. Zoophytes. 2e fascicule. Échinodermes. 2e livraison*. 344 pp. Adolphe Jourdan, Alger.
- Prieur, A.** (Ed.). 1980. *Catalogue des collections paléontologiques Françaises*. 307 pp. Département des Sciences de la Terre, Université Claude-Bernard, Lyon I, Lyon.
- Schmid, H.-P., Harzhauser, M. & Kroh, A.** 2001. Hypoxic Events on a Middle Miocene Carbonate Platform of the Central Paratethys (Austria, Badenian, 14 Ma). *Annalen des Naturhistorischen Museums in Wien*, 102A: 1–50.
- Serres, M. de.** 1829. *Géognosie des Terrains tertiaires, ou Tableau des principaux animaux invertébrés des Terrains marins Tertiaires, du midi de la France*. xcii, 277 pp., 6 pls. Pomathio-Durville, Montpellier, Paris.

Szörényi, E. 1953. Miozäne Echiniden aus den westlichen Teilen der Ukraine. *Geologica Hungarica, Series Palaeontologica*, **23**: 1–104.

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Case 3357***Calamaria* H. Boie in F. Boie, 1827 (Reptilia, Serpentes): proposed conservation of usage by designation of *C. linnaei* H. Boie in F. Boie, 1827 as the type species**

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Abstract. The purpose of this application, under Articles 50.1 and 68.4 of the Code, is to conserve the long and continuing usage of the name *Calamaria* for a genus of Asian colubrid snakes by ruling that the nominal genus *Calamaria* was established by H. Boie in F. Boie (1827) and that its type species is *Calamaria linnaei* H. Boie in F. Boie, 1827. This would involve setting aside all previous fixations of type species for *Calamaria* before this date and designating *C. linnaei* as the type species. *Calamaria linnaei* H. Boie in F. Boie, 1827 has been used as a replacement name for *Coluber calamarius* Linnaeus, 1758, but the Commission is now asked to rule that this name denotes a separate taxon. These actions are required to avoid synonymy between *Calamaria* and the valid generic name *Oligodon* H. Boie in Fitzinger, 1826.

Keywords. Nomenclature; taxonomy; Reptilia; Serpentes; *Calamaria*; *Calamaria linnaei*; snakes; Asia.

1. The generic name *Calamaria* H. Boie in F. Boie, 1827 (columns 519, 539), type species *Coluber calamarius* Linnaeus, 1758 (p. 216) by original designation and tautonymy, was placed by the Commission on the Official List of Generic Names in Zoology (Opinion 92, 1926, *Smithsonian Miscellaneous Collections*, **73**(4): 3) without realizing the potential for instability produced by this action. *Calamaria* in the sense of Boulenger (1894, p. 330), M. Smith (1943, p. 237), and Inger & Marx (1965, pp. 1–304) has had a long and continuous usage, with few exceptions, for a large group of Asian snakes. However, as detailed in 1966 by Brongersma, Inger & Marx (BZN **22**: 303–313) its originally designated type species does not belong to *Calamaria* as generally recognized but to the valid genus *Oligodon* H. Boie in Fitzinger, 1826, type species *O. bitorquatum* H. Boie in Fitzinger, 1826 (pp. 29, 56.). Brongersma et al. (1966) petitioned the Commission (BZN **22**: 303–313) to conserve the name *Calamaria* Boie, 1827 through a complex series of rulings. No action was taken by the Commission, but *Calamaria* continues to be used in the sense of Inger & Marx (1965) and Brongersma et al. (1966). The present application asks the Commission to reconsider the case for conservation of the name *Calamaria* in the

interest of stability and universality but through a different, and we trust simpler, solution than that proposed by Brongersma et al. (1966). In doing so we present the main issues involved without repeating all of their discussion which may be consulted for further detail.

2. The first use of the name *Calamaria* is in Fitzinger (1826, p. 56) where two species are listed as follows under the genus *Duberria*: '23. *D. lumbricoidea* m. Lumbricartige D[audin]. (*Calamaria lumbricoidea*. Boie). Ex Asia, Insula Java. 24. *D. tessellata* m. Gewürfelte D[audin]. (*Calamaria tessellata*. Boie.) Ex Asia, Insula Java'. *Calamaria* was not made an available name by this listing as it was published as a junior synonym of *Duberria* (Article 11.6 of the Code—Publication as a junior synonym) and no description or indication was given (Article 12 of the Code—Names published before 1931). The two listed nominal species are nomina nuda as they lack descriptions or indications.

3. The generic name *Calamaria* was first made available in a paper by Friedrich Boie (1826, column 981) in a listing of generic and species names derived from the large, never published manuscript and series of plates that formed the '*Erpétologie de Java*', prepared by his brother, Heinrich Boie, prior to the latter's departure to Java in December, 1825, where he died in 1827. References to *Calamaria* in Fitzinger (1826), Schlegel (1826a, 1826b) and F. Boie (1826, 1827) are based on this unpublished opus, which is hereafter cited as the *Erpétologie*. *Calamaria* H. Boie in F. Boie, 1826 (col. 981) is a new genus by indication (Article 12.2.5 of the Code—Names published before 1931, Indications), as the only included species is *Coluber calamarius* Linnaeus, 1758 (p. 216), which becomes the type species by tautonymy and monotypy. Note that Opinion 92 of the Commission incorrectly attributes the name to 'Boie, 1827, 236' (see below). It should also be noted that Melville & Smith (1987) did not list *Calamaria* in the Official List of Generic Names in Zoology 'pending further investigation of the case' fide Brongersma et al. (1966, p. 304).

4. The next usages of *Calamaria* are in two papers by Schlegel (1826a, 1826b), which list the names proposed by H. Boie in the unpublished *Erpétologie* but without descriptions. The first of these, in French, (Schlegel, 1826a, p. 236) presents the name as: N. Genre: *Calamaria* Boié, as including six of Boie's species (all nomina nuda) and the new replacement name, '[*Calamaria*] *linnaei* B. (*Col. calamaria* Linn.)'. Boie's name was apparently proposed to avoid tautonymy between the generic and specific names. This is the paper erroneously referred to in Opinion 92 as containing the original proposal of the name *Calamaria* and citing the date as 1827. Brongersma et al. (1966, p. 305) perpetuated the error of attributing the validation of the generic name to this paper but cited its correct date.

5. There has been disagreement in the *Bulletin of Zoological Nomenclature* regarding the date of publication of the second Schlegel paper, the '*Erpétologische Nachrichten*', a version in German of Schlegel (1826a), that appeared in *Isis von Oken*, vol. 20, pt. 3. In 1966, Brongersma et al. (BZN 22: 304–305) noted that the signatures of parts 1–3 of vol. 20 of *Isis* are dated 1826, and expressed confusion over publication scheduling. In 1968, H. Smith (BZN 25: 108) wrote that only parts 1–2 are dated on the title pages, and that part 3 'contains the first sections of the Literature-Register for 1827, and therefore could not have appeared in 1826'. Smith evidently was referring to the short list of titles in the '*Ein gegangen*' section on the

back cover of part 3, where there is a single 1827 item from the Heidelberg publisher [Joseph] Engelmann. However, Smith overlooked an earlier 1827 entry in the list of books at the end of part 2, nor did he mention the 1826 date in the printer's gathering or signature title ('Isis B XX. Heft 3. 1826.') on the bottom of every fifth page of part 3. It is likely that the aforesaid 1827 works were merely advanced notices from the publisher, as was sometimes done in *Isis* (e.g. the 1827 *Eingegangen* entry in the penultimate part of previous vol. 19, 1826) and also in the *Literarischer Anzeiger* (the supplement shared by *Isis* and *Kritischen Annalen der Medicin*). *Isis* had lapsed temporarily from its annual/monthly publication schedule, with volumes 18 and 19 and the early part of 20 all appearing in 1826. Thus, there is no reliable basis for discarding the 1826 dates on parts 2–3 of vol. 20, and we accept a default date of December 31 for part 3. We were concerned also with the correctness of the generally accepted 'October' date for Schlegel (1826a) because of an indication earlier in the journal (p. 232) that part of a reviewed article had been published in December 1826; however, all parts of the reviewed item had actually been published in 1824. References to the 'Nachrichten' paper, therefore, are cited as 'Schlegel (1826b)' throughout the present application. Schlegel (1826b, column 291) lists 'N. G. *Calamaria* Boie' with the same complement of species as in Schlegel (1826a).

6. In a fourth paper based on the *Erpétologie* manuscript, F. Boie (1827, column 519) presents a diagnosis of the genus *Calamaria* and lists *Coluber calamarius* L. as the type species. Later (columns 539–540) six species are referred to the genus, three of which are made available by brief descriptions, two are nomina nuda, and *C. linnaei* H. Boie (*Col. calamarius* Linn.) is listed without description. All subsequent authors prior to Andersson (1899, p. 8) regarded *Coluber calamarius* and *Calamaria linnaei* to be based on the same species.

7. No description of the Java snake that the Boie brothers and Schlegel called *Calamaria linnaei* appeared until it was described and figured by Schlegel (1837, [vol. 2], pp. 28–30, pl. 1, figs. 17, 18), with reference to 'une autre à-pen-près semblable: Cal. Linnaei, fig. dans *l'Erpét. de Java Pl. 22, fig. 2*'. Inger & Marx (1965, pp. 200–201) pointed out that one of the snakes (Nationaal Natuurhistorisch Museum, Leiden, RMNH 27) used as the basis for Schlegel's description was the specimen upon which H. Boie based the name *C. linnaei* in the unpublished *Erpétologie*. Inger & Marx stated that this specimen is the holotype of *C. linnaei* but, according to the Code (Article 67.8), as a new replacement name *C. linnaei* must take the same type as *Coluber calamarius* Linnaeus, 1758. In addition, Schlegel's account is based on a number of other specimens that were given names in the *Erpétologie* manuscript, some of which were made available in F. Boie, 1827 and would have priority over *C. linnaei* if Schlegel's account were considered to make it available.

8. Andersson (1899, pp. 8–9) discovered that the type specimen of *Coluber calamarius* Linnaeus was not congeneric with the specimen that was the basis for H. Boie's *Calamaria linnaei* but was a representative of the genus *Oligodon* H. Boie in Fitzinger, 1826 (pp. 29, 56). Because *C. linnaei* is a new replacement name in its original usage (Schlegel, 1826a), strict enforcement of the Principle of Priority makes *Calamaria* a junior subjective synonym of *Oligodon*. Brongersma et al. (1966, pp. 308–309) have documented the nearly universal use of the name *Calamaria* for the genus diagnosed by H. Boie in F. Boie (1827) and the specific name *C. linnaei* following from Duméril, Bibron & Duméril, 1854 (p. 60) to 1966. Although no action

was taken by the Commission to conserve *Calamaria* or *C. linnaei*, these names have been used universally in the same sense to the present.

9. Brongersma et al. (1966, pp. 307–308) were much concerned that almost all the possible solutions to this problem had unstabilizing nomenclatural ramifications but their proposal was too complex to ensure action by the Commission. However, M. Smith (1943, p. 237) earlier had made the insightful, if not technically correct, suggestion that ‘The type of *Calamaria* therefore is *C. linnaei*, the snake that Boie had before him, not the Linnean species, which he thought identical’. A similar suggestion was made by L.B. Holthuis in a letter to the Commission Secretariat in 1966, with the caveat that the specimen (RMNH 27) upon which the name and description in the *Erpétologie* was based should be designated the neotype of *C. linnaei*. We have followed the leads of Smith and Holthuis in the request below.

10. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power:
 - (a) to rule that all usages of the name *Calamaria* prior to that by H. Boie in F. Boie (1827) are unavailable;
 - (b) to cancel the part of Opinion 92 that deals with *Calamaria* H. Boie in F. Boie, 1827;
 - (c) to rule that the nominal species *Calamaria linnaei* (misidentified as *Coluber calamarius*) shall not be treated as a replacement name but as a new available name published by H. Boie in F. Boie, 1827 in conjunction with the diagnosis of the genus and that its holotype is RMNH 27 collected in Java, 1820–1823 by H. Kuhl and J.C. van Hasselt;
 - (d) to set aside all previous type species fixations for the nominal genus *Calamaria* H. Boie in F. Boie, 1827 and to designate *Calamaria linnaei* H. Boie in F. Boie, 1827 as the type species;
- (2) to place on the Official List of Generic Names in Zoology the name *Calamaria* H. Boie in F. Boie, 1827 (gender: feminine), type species by designation in (1)(d) above *Calamaria linnaei* H. Boie in F. Boie, 1827;
- (3) to place on the Official List of Specific Names in Zoology the name *linnaei* H. Boie in F. Boie, 1827, as published in the binomen *Calamaria linnaei* (specific name of the type species of *Calamaria*).

References

- Andersson, L.G.** 1899. Catalogue of Linnean type-specimens of snakes in the Royal Museum in Stockholm. *Bihang till Kongl. Svenska Vetenskaps-Akademiens Handlingar*, **24**, afd. 4, no. 6: 1–35.
- Boie, F.** 1826. Generalübersicht der Familien und Gattungen der Ophidier. *Isis von Oken*, **19**(10): columns 981–982.
- Boie, F.** 1827. Bemerkungen über Merrem’s Versuch eines Systems der Amphibien. Marburg, 1820. 1te Lieferung: Ophidier. *Isis von Oken*, **20**(6): columns 508–566.
- Boulenger, G.A.** 1894. *Catalogue of the snakes in the British Museum (Natural History)*, vol. 2, xi, 382 pp., 20 pls. London.
- Brongersma, L.D., Inger, R.F. & Marx, H.** 1966. Proposed use of the plenary powers to conserve the generic name *Calamaria* Boie, 1827, and the specific name *Calamaria linnaei* Schlegel, 1837 (Reptilia, Serpentes). Z.N.(S.) 1114. *Bulletin of Zoological Nomenclature*, **22**(5/6): 303–313.

- Duméril, A.M.C., Bibron, G. & Duméril, A.** 1854. *Erpétologie générale ou histoire naturelle complète des reptiles*, 7, pt. 1. vii, [iv], xvi, 780 pp. Librairie Encyclopédique de Roret, Paris.
- Fitzinger, L.J.** 1826. *Neue Classification der Reptilien nach ihren natürlichen Verwandtschaften. Nebst einer Verwandtschafts-Tafel und einem Verzeichnisse der Reptilien-Sammlung des k. zoologischen Museums zu Wien*. [viii], 66 pp., 1 foldout table. J.G. Heubner, Vienna.
- Inger, R.F. & Marx, H.** 1965. The systematics and evolution of the Oriental colubrid snakes of the genus *Calamaria*. *Fieldiana: Zoology*, **49**: 1–304.
- Linnaeus, C.** 1758. *Systema Naturae*, Ed. 10, vol. 1. 824 pp. Salvii, Holmiae.
- Melville, R.V. & Smith, J.D.D.** (Eds.). 1987. *Official lists and indexes of names and works in zoology*. 366 pp. International Trust for Zoological Nomenclature, London.
- Schlegel, H.** 1826a. Notice sur l'erpétologie de l'île de Java; par M. Boié. (Ouvrage manuscrit.). *Bulletin des Sciences Naturelles et de Géologie* (Paris), **9**(2): 233–240 (October).
- Schlegel, H.** 1826b. Erpetologische Nachrichten. *Isis von Oken*, **20**(3): columns 281–294 (December 31).
- Schlegel, H.** 1837. *Essai sur la physionomie des serpens*. Partie Générale [Vol. 1]: xxvii, 251 pp. Partie Descriptive [Vol. 2]: 606, xvi pp. Planches, cartes et tableaux: 21 pls. 3 maps, 2 tables. J. Kips, J. Hz. et W.P. Van Stockum, La Haye (text) and M.H. Schonekat, Amsterdam (folio atlas).
- Smith, H.M.** 1968. Request for suppression of *Amplycephalus* Kuhl & van Hasselt, 1822 (Reptilia: Serpentes). *Z.N.(S.)1840. Bulletin of Zoological Nomenclature*, **25**(2/3): 107–112.
- Smith, M.** 1943. *The fauna of British India, Ceylon and Burma, including the whole of the Indo-Chinese sub-region. Reptilia and Amphibia. Vol. III. Serpentes*. xii, 583 pp. Taylor & Francis, London.

Acknowledgement of receipt of this application was published in BZN **62**: 185.

Comments on this case are invited for publication (subject to editing) in the *Bulletin*; they should be sent to the Executive Secretary, I.C.Z.N., c/o Natural History Museum, Cromwell Road, London SW7 5BD, U.K. (e-mail: iczn@nhm.ac.uk).

Comment on the proposed conservation of the specific name of *Curculio assimilis* Paykull, 1792 (currently *Ceutorhynchus assimilis*; Insecta, Coleoptera)
(Case 3298; see BZN 63: 31–32)

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As a researcher and co-ordinator of a major European project focusing on this major pest of oilseed rape, I support this application to conserve the specific name of *Curculio assimilis* Paykull, 1792 (currently *Ceutorhynchus assimilis*).

The cabbage seed weevil, for which the name *Ceutorhynchus assimilis* is in prevailing use, is a major economic pest of oilseed rape and other cruciferous crops in Europe, Australasia and North America. It has been the subject of strategic and applied research since the beginning of the last century and a considerable literature using *Ceutorhynchus assimilis* as its specific name has accumulated. A change in name for this insect to *Ceutorhynchus obstrictus*, as used incorrectly by Colonnelli (1993) for the reasons given by Alford (2006), would lead to considerable confusion among readers of this literature.

As a researcher, I have studied the pests of oilseed rape continuously since 1972, and to date have published 76 papers which include work on the cabbage seed weevil, referring to it by the specific name *Ceutorhynchus assimilis* (a list of these publications is held by the Commission Secretariat).

As an 'expert' on the pests of oilseed rape, I was asked earlier this year to revise the database for the cabbage seed weevil (as *Ceutorhynchus assimilis*) for the Crop Protection Compendium, published by CAB International. My revision collated information from 116 publications on the cabbage seed weevil, all as *Ceutorhynchus assimilis* (a list of these publications is held by the Commission Secretariat).

A major recent landmark in the study of oilseed rape pests has been the publication of the book 'Biocontrol of Oilseed Rape Pests' (Alford, 2003). This is a multi-author volume with contributions from 15 currently active European researchers. It has several chapters specifically on biocontrol of cabbage seed weevil. Authors agreed that, for this monograph, 'the name *Ceutorhynchus assimilis* is maintained for the cabbage seed weevil . . . as there would appear no good reason to adopt *obstrictus*' and 'the confusion generated by so doing would be enormous' (Alford, 2003, p. 15).

The practice of maintaining the name *Ceutorhynchus assimilis* for the cabbage seed weevil was continued by agreement of partners for the EU-funded project MASTER 'MANagement STRategies for European Rape pests' QLK5-CT-2001-01447 (2001-2006), of which I was Scientific Coordinator (Williams et al., 2005). This project had partners from six EU countries, namely Estonia, Finland, Germany, Poland, Sweden and the UK. The main objective of the project was to construct, develop, evaluate and promote an Integrated Pest Management System for the European winter oilseed rape crop that integrates and maximises biological control of six target pests by their key natural enemies, while minimising pesticide use. MASTER targeted six major pests of winter oilseed rape in Europe, including the cabbage seed weevil. A total of 166 scientific papers have been published or are in

press from the project to date, with more to come. Many of these focus on or refer to the cabbage seed weevil, using the specific name *Ceutorhynchus assimilis*. The publications are listed on the project website (<http://www.rothamsted.bbsrc.ac.uk/pie/master/master.htm>).

Results from the project MASTER have been widely disseminated at major international and national meetings during the course of the project and at the International Symposium 'Integrated Pest Management in Oilseed Rape' held at Göttingen, Germany, during 3–5 April 2006. The symposium was attended by 90 delegates from 15 European countries as well as from Canada, China and Israel. Many of the papers focussed on the cabbage seed weevil. Editorial policy was to use *Ceutorhynchus assimilis* as its specific name.

Additional reference

Williams, I.H., Büchs, W., Hokkanen, H., Menzler-Hokkanen, I., Johnen, A., Klukowski, Z., Luik, A., Nilsson, C. & Ulber, B. 2005. MASTER—Integrating biological control within IPM for winter oilseed rape across Europe. Pp. 301–308 in: *Proceedings of the BCPC International Congress, Crop Science & Technology, Glasgow, 31 October—2 November 2005*.

Comment on the proposed fixation of the feminine gender of the genus *Trachys* Fabricius, 1801 (Insecta, Coleoptera) and the form of derivation of family-group names based on *Trachys*

(Case 3335; see BZN 63: 172–176)

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The request to fix the gender of *Trachys* Fabricius, 1801 goes beyond simply according the assumed opinion of the original author permanence. In addition to *Trachys*, the following genus-group names in BUPRESTIDAE have the same ending: *Brachys* Dejean, 1833, *Enbrachys* Fisher, 1935, *Neotrachys* Obenberger, 1923, *Taphrocerus* (*Parabrachys*) Cobos, 1979 and *Paratrachys* Saunders, 1873. Additionally, the family-group name BRACHYINA Cobos, 1979 would have to be altered to be consistent if TRACHYINI was altered to TRACHYDINI.

According to H. Don Cameron, Department of Classical Studies, University of Michigan, *Trachys* is a masculine stem adjective. The genitive case is *Trachyos*. The Code (Article 29) specifies that family names are formed by adding 'idae' to the stem of the type genus. Article 29.3.1 specifies that 'the stem is found by deleting the case ending of the appropriate genitive singular'. The genitive singular is *Trachyos*, the case ending is *-os*, so the stem is *Trachy-* and the correct family name is TRACHYIDAE. Thus TRACHYINI and TRACHYINA are the correct spellings for tribe and subtribe, respectively. The past uses of TRACHINI and TRACHYDINI are incorrect.

I believe that if *Trachys* is fixed as feminine in gender and the spellings of the family-group names are altered in alignment with such a decision, we risk confusing current and future workers in BUPRESTIDAE or leave the fate of the other family- and

genus-group names in limbo. If these six genus-group names are technically masculine, fixation of that gender in the larger sense will assure consistency and clarity.

Thus, while I can appreciate the sentiments behind Case 3335, I feel that the consistency of a uniform, strictly technical, masculine definition for the entire group of generic names and the two derived family-group names is the best way to go.

Comments on the proposed conservation of the generic names *Gnorimus* Le Peletier de Saint-Fargeau & Serville, 1828 and *Osmoderma* Le Peletier de Saint-Fargeau & Serville, 1828 (Insecta, Coleoptera)

(Case 3349; see BZN 63: 177–183)

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I would like to go on record as supporting the proposal by Krell, Ballerio & Smith to conserve the names *Gnorimus* and *Osmoderma* (Coleoptera, SCARABAEIDAE). Resurrecting long forgotten or unused names is a great disservice to nomenclatural stability.

(2) Patrick Arnaud

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I agree with the proposed conservation of *Gnorimus* and *Osmoderma* rather than the revalidation of long-unused names.

Comment on the proposed conservation of the specific name of *Celaenorrhinus ratna* Fruhstorfer, 1908 (Insecta, Lepidoptera)

(Case 3339; see BZN 63: 114–117, 201–202)

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I can well understand my colleagues dealing with the Oriental HESPERIIDAE who are not happy to use the never used and forgotten specific name *Celaenorrhinus kawakamii* (Matsumura, 1907) instead of the well-established name *C. ratna* Fruhstorfer, 1908. The species in question seems to be widespread in the Oriental Region and, although described from Taiwan, forms a number of subspecies, described within the species *ratna*, on the continent. One of them, *C. ratna tyleri* Evans, 1926, was supposed (Devyatkin, 2000, p. 210) to be illustrated and listed in Osada et al. (1999, pl. 134, p. 221) from North Laos under the name *C. maculosus* (C. & R. Felder, [1867]) ssp. The species is therefore very likely to be found in Vietnam. While dealing

with the HESPERIIDAE fauna of the latter country, I would never hesitate to identify it as *C. ratna*, being practically unaware of the applicability of the little-known Matsumura name to this species.

It seems clear that the conservation of the name *kawakamii* would lead to unnecessary confusion in the nomenclature of the genus. Furthermore, Matsumura himself used the name *ratna* in his publications (see the references in the Application).

Therefore, I support the proposed conservation of the specific name *ratna* Fruhstorfer, 1908 by suppression of the name *kawakamii* Matsumura, 1907 as an action supporting the preferred solution to this nomenclatural problem.

In conclusion, I can add at least one paper (Huang, 2003, p. 68), on Chinese butterflies using the name *ratna* to the list cited in the original application.

Additional references

- Devyatkin, A.L.** 2000. HesperIIDAE of Vietnam 8. Three new species of the genus *Celaenorrhinus* Hübner, 1819, with notes on the *C. maculosa* (C. & R. Felder, [1867]) – *oscula* Evans, 1949 group (Lepidoptera, HesperIIDAE). *Atalanta*, **31**(1/2): 205–211.
- Huang, H.** 2003. A list of butterflies collected from Nujiang (Lou Tse Kiang) and Dulongjiang, China with descriptions of new species, new subspecies, and revisional notes. *Neue Entomologische Nachrichten*, **51**: 55–114.
- Osada, S., Uémura, Y. & Uehara, J.** 1999. *An illustrated checklist of the butterflies of Laos P.D.R.* 240 pp. Mokuyo-sha, Tokyo.

OPINION 2161 (Case 3321)***Bythinella* Moquin-Tandon, 1856 (Gastropoda, Prosobranchia, RISSOOIDEA): usage conserved by the designation of *Bulimus viridis* Poiret, 1801 as the type species**

Abstract. The Commission has ruled that the usage of the generic name *Bythinella* Moquin-Tandon, 1856 is conserved by designating *Bulimus viridis* Poiret, 1801 as the type species.

Keywords. Nomenclature; taxonomy; Gastropoda; Prosobranchia; RISSOOIDEA; *Bythinella*; *Bythinella viridis*; *Leachia*; Europe.

Ruling

- (1) Under the plenary power it is hereby ruled that all previous fixations of type species for the nominal genus *Bythinella* Moquin-Tandon, 1856 are set aside and *Bulimus viridis* Poiret, 1801 is designated as the type species.
- (2) The name *Bythinella* Moquin-Tandon, 1856 (gender: feminine), type species by designation in (1) above *Bulimus viridis* Poiret, 1801, is hereby placed on the Official List of Generic Names in Zoology.
- (3) The name *viridis* Poiret, 1801, as published in the binomen *Bulimus viridis* (specific name of the type species of *Bythinella* Moquin-Tandon, 1856) is hereby placed on the Official List of Specific Names in Zoology.
- (4) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Leachia* Risso, 1826 (a junior homonym of *Leachia* Lesueur, 1821) (Cephalopoda);
 - (b) *Bithynella* Fischer, 1885 (an unjustified emendation and junior objective synonym of *Bythinella* Moquin-Tandon, 1856);
 - (c) *Bithynella* Fagot, 1886 (an unjustified emendation and junior objective synonym of *Bythinella* Moquin-Tandon, 1856).

History of Case 3321

An application to conserve the usage of the generic name *Bythinella* Moquin-Tandon, 1856 by designating *Bulimus viridis* Poiret, 1801 as the type species was received from D. Kadolsky (66 Heathhurst Road, Sanderstead, Surrey CR2 0BA, U.K.) on 23 June 2004. After correspondence the case was published in BZN 62: 134–139 (September 2005). The title, abstract and keywords of the case were published on the Commission's website. A comment in support of the case was published in BZN 63: 48.

Decision of the Commission

On 1 June 2006 the members of the Commission were invited to vote on the proposals published in BZN 62: 137. At the close of the voting period on 1 September 2006 the votes were as follows:

Affirmative votes – 18: Alonso-Zarazaga, Bock, Bouchet, Brothers, Halliday, Kerzhner (parts 1, 2 and 3), Lamas, Macpherson, Mahnert, Mawatari, Minelli, Ng, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative votes – 1: Kerzhner (part 4).

Voting against part 4, Kerzhner said that it was undesirable to place on the Official Indexes names which were clearly invalid under the Code.

Original references

The following are the original references to the names placed on Official Lists and an Official Index by the ruling given in the present Opinion:

Bithynella Fischer, 1885, *Manuel de conchyliologie et de paléontologie conchyliologique*, part 8, p. 725.

Bithynella Fagot, 1886, *Bulletin de la Société d'Histoire naturelle de Toulouse*, **20**: 62.

Bythinella Moquin-Tandon, 1856, *Histoire naturelle des mollusques terrestres et fluviatiles de France . . .*, pp. 515–516.

Leachia Risso, 1826, *Histoire naturelle des principales productions de l'Europe méridionale*, p. 102.

viridis, *Bulimus*, Poiret, 1801, *Coquilles fluviatiles et terrestres observées dans le département de l'Aisne et aux environs de Paris*, pp. 44–47.

OPINION 2162 (Case 3314)***Stegopterus* Burmeister & Schaum, 1840 and *Trichiotinus* Casey, 1915
(Insecta, Coleoptera, SCARABAEIDAE): conserved**

Abstract. The Commission has ruled that the names of two well-established genera of cetonine scarab beetles, *Stegopterus* Burmeister & Schaum, 1840 and *Trichiotinus* Casey, 1915, are conserved by suppression of two senior synonyms, *Tetrophthalmus* Kirby, 1827 and *Trichinus* Kirby, 1827.

Keywords. Nomenclature; taxonomy; Coleoptera; SCARABAEIDAE; *Stegopterus*; *Trichiotinus*; *Stegopterus suturalis*; *Trichiotinus piger*; scarab beetles; North America; South Africa.

Ruling

- (1) Under the plenary power it is hereby ruled that the following names are suppressed for the purposes of the Principle of Priority but not for those of the Principle of Homonymy:
 - (a) *Tetrophthalmus* Kirby, 1827;
 - (b) *Trichinus* Kirby, 1827.
- (2) The following names are hereby placed on the Official List of Generic Names in Zoology:
 - (a) *Stegopterus* Burmeister & Schaum, 1840 (gender: masculine), type species by subsequent designation by Smith (2004) *Trichius suturalis* Gory & Percheron, 1833;
 - (b) *Trichiotinus* Casey, 1915 (gender: masculine), type species by original designation *Trichius piger* Fabricius, 1775.
- (3) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *suturalis* Gory & Percheron, 1833, as published in the binomen *Trichius suturalis* (specific name of the type species of *Stegopterus* Burmeister & Schaum, 1840);
 - (b) *piger* Fabricius, 1775, as published in the binomen *Trichius piger* (specific name of the type species of *Trichiotinus* Casey, 1915).
- (4) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:
 - (a) *Tetrophthalmus* Kirby, 1827 (as suppressed in (1)(a) above);
 - (b) *Trichinus* Kirby, 1827 (as suppressed in (1)(b) above).
- (5) The name *sutularis* Kirby, 1827, as published in the binomen *Trichius sutularis*, is hereby placed on the Official Index of Rejected and Invalid Specific Names in Zoology.

History of Case 3314

An application to conserve the generic names of two well-established genera of cetonine scarab beetles, *Stegopterus* Burmeister & Schaum, 1840 and *Trichiotinus*

Casey, 1915, was received from Andrew B.T. Smith (*Canadian Museum of Nature, Ottawa, Ontario, Canada*) on 16 February 2004. After correspondence the case was published in BZN **62**: 75–78 (June 2005). The title, abstract and keywords of the case were published on the Commission's website. A comment in support of the case and proposing the placement of the name *Trichius sutularis* Kirby, 1827 on the Official Index of Rejected and Invalid Specific Names in Zoology was published in BZN **62**: 241.

Decision of the Commission

On 1 June 2006 the members of the Commission were invited to vote on the proposals published in BZN **62**: 76 and **62**: 241. At the close of the voting period on 1 September 2006 the votes were as follows:

Affirmative votes – 15: Alonso-Zarazaga, Bock, Bouchet (parts 1b, 2b, 3b, 4b), Brothers, Halliday, Kerzhner (part), Macpherson, Mahnert, Mawatari, Minelli, Papp, Patterson, Rosenberg, Song and Štys.

Negative votes – 4: Bouchet (parts 1a, 2a, 3a, 4a), Kerzhner (part), Ng and van Tol.

Bouchet and Kerzhner voted against the conservation of the name *Stegopterus Burmeister & Schaum*, 1840 on account of the limited usage of the name.

Lamas abstained from voting.

Original references

The following are the original references to the names placed on Official Lists and Official Indexes by the ruling given in the present Opinion:

piger, *Trichius*, Fabricius, 1775, *Systema Entomologiae*, p. 41.

Stegopterus Burmeister & Schaum, 1840, *Zeitschrift für die Entomologie*, **2**(2): 404.

sutularis, *Trichius*, Kirby, 1827, *Zoological Journal*, **3**(10): 156.

sutularis, *Trichius*, Gory & Percheron, 1833, *Monographie des Cétoines et genres voisins . . .*, p. 48.

Tetrophthalmus Kirby, 1827, *Zoological Journal*, **3**(10): 156.

Trichinus Kirby, 1827, *Zoological Journal*, **3**(10): 156.

Trichiotinus Casey, 1915, *Memoirs on the Coleoptera*, **6**: 381.

The following is the reference for the designation of *Trichius sutularis* Gory & Percheron, 1833 as the type species of *Stegopterus* Burmeister & Schaum, 1840:

Smith, A.B.T. 2004. *Coleopterists' Bulletin*, **58**(2): 288.

OPINION 2163 (Case 3329)***Mycetoporus forticornis* Fauvel, 1875 (Insecta, Coleoptera): specific name given precedence over *Mycetoporus aequalis* Thomson, 1868**

Abstract. The specific name *Mycetoporus forticornis* Fauvel, 1875 is conserved for a widespread Palaearctic species of rove beetle (STAPHYLINIDAE). The name was threatened by the recently discovered senior synonym *Mycetoporus aequalis* Thomson, 1868, which was in current use for another species of the same genus. A change in the application of the name from one widespread species to another would have caused considerable confusion, and the name *Mycetoporus forticornis* is given precedence over *Mycetoporus aequalis*.

Keywords. Nomenclature; taxonomy; Coleoptera; STAPHYLINIDAE; TACHYPORINAE; *Mycetoporus*; *Mycetoporus forticornis*; *Mycetoporus aequalis*; rove beetles; Palaearctic.

Ruling

- (1) Under the plenary power it is hereby ruled that the name *forticornis* Fauvel, 1875, as published in the binomen *Mycetoporus forticornis*, is given precedence over the name *aequalis* Thomson, 1868, as published in the binomen *Mycetoporus aequalis*, whenever the two are considered to be synonyms.
- (2) The following names are hereby placed on the Official List of Specific Names in Zoology:
 - (a) *forticornis* Fauvel, 1875, as published in the binomen *Mycetoporus forticornis*, with the endorsement that it is to be given precedence over the name *aequalis* Thomson, 1868, as published in the binomen *Mycetoporus aequalis*, whenever the two are considered to be synonyms;
 - (b) *aequalis* Thomson, 1868, as published in the binomen *Mycetoporus aequalis*, with the endorsement that it is not to be given priority over the name *forticornis* Fauvel, 1875, as published in the binomen *Mycetoporus forticornis*, whenever the two are considered to be synonyms.

History of Case 3329

An application to conserve the specific name *Mycetoporus forticornis* Fauvel, 1875 for a widespread Palaearctic species of rove beetle (STAPHYLINIDAE) by giving it precedence over *Mycetoporus aequalis* Thomson, 1868 was received from Michael Schülke (*Rue Ambroise Paré 11, D-13405 Berlin, Germany*) on 18 August 2004. After correspondence the case was published in BZN 62: 140–141 (September 2005). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 June 2006 the members of the Commission were invited to vote on the proposals published in BZN 62: 141. At the close of the voting period on 1 September 2006 the votes were as follows:

Affirmative votes – 14: Alonso-Zarazaga, Bock, Brothers, Halliday, Macpherson, Mahnert, Mawatari, Minelli, Ng, Papp, Patterson, Rosenberg, Song and van Tol.

Negative votes – 3: Kerzhner, Lamas and Štys.

No vote was received from Bouchet.

Original references

The following are the original references to the names placed on an Official List by the ruling given in the present Opinion:

aequalis, *Mycetoporus*, Thomson, 1868, *Skandinaviens Coleoptera, synoptisk bearbetade*, Tom. X, p. 323.

forticornis, *Mycetoporus*, Fauvel, 1875, *Faune Gallo-Rhénane ou species des insectes qui habitent la France, la Belgique . . .*, p. 572.

OPINION 2164 (Case 3328)***Didelphis* Linnaeus, 1758 (Mammalia, DIDELPHIDAE): gender corrected to feminine, and *Cryptotis* Pomel, 1848 (Mammalia, SORICIDAE): gender fixed as masculine**

Abstract. The Commission has ruled that the entry on the Official List of Generic Names in Zoology for the nominal genus *Didelphis* Linnaeus, 1758 is amended from masculine to feminine, as originally used by Linnaeus, and that the gender of the nominal genus *Cryptotis* Pomel, 1848 is fixed as masculine.

Keywords. Nomenclature; taxonomy; Soricomorpha; DIDELPHIDAE; SORICIDAE; *Didelphis*; *Cryptotis*; mammals.

Ruling

- (1) It is hereby ruled:
 - (a) under the plenary power that the entry on the Official List of Generic Names in Zoology for *Didelphis* Linnaeus, 1758 is amended to record that the gender is corrected from masculine to feminine;
 - (b) that the gender of the name *Cryptotis* Pomel, 1848 is masculine.
- (2) The name *Cryptotis* Pomel, 1848 (gender: masculine), type species by monotypy *Sorex cinereus* Bachman, 1837, is hereby placed on the Official List of Generic Names in Zoology.

History of Case 3328

An application to amend the entry on the Official List of Generic Names in Zoology for the nominal genus *Didelphis* Linnaeus, 1758 from masculine to feminine, and to fix the gender of the nominal genus *Cryptotis* Pomel, 1848 as masculine, was received from Alfred L. Gardner (*USGS Patuxent Wildlife Research Center, National Museum of Natural History, Smithsonian Institution, Washington, DC 20013-7012, U.S.A.*) on 10 September 2004. After correspondence the case was published in *BZN* 62: 142-145 (September 2005). The title, abstract and keywords of the case were published on the Commission's website. No comments on this case were received.

Decision of the Commission

On 1 June 2006 the members of the Commission were invited to vote on the proposals published in *BZN* 62: 143. At the close of the voting period on 1 September 2006 the votes were as follows:

Affirmative votes – 17: Alonso-Zarazaga, Bock, Brothers, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Ng, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative votes – none.

No vote was received from Bouchet.

Original references

The following are the original references to the names placed on an Official List or amended by the ruling given in the present Opinion:

- Cryptotis* Pomel, 1848, *Archive des Sciences Physiques et Naturelles, Genève*, **9**: 249.
Didelphis Linnaeus, 1758, *Systema Naturae*, Ed. 10, vol. 1, pp. 54–55.

OPINION 2165 (Case 3327)**Amyot, *Méthode mononymique* (1845–1847): correction to Opinion 686**

Abstract. The Commission has amended the ruling given in Opinion 686 to eliminate confusion caused by the omission of part of the work by C.J.B. Amyot, 1845–1847. The work in question, *Entomologie Française. Rhynchotes, Méthode mononymique*, was published in *Annales de la Société Entomologique de France* and reprinted as a book (Amyot, 1848). The relevant entry on the Official Index of Rejected and Invalid Works in Zoological Nomenclature has been corrected.

Keywords. Nomenclature; taxonomy; C.J.B. Amyot, *Méthode Mononymique*; Hemiptera.

Ruling

- (1) The ruling given in Opinion 686 is hereby amended to include vol. 5, pp. 143–238 of C.J.B. Amyot's *Annales de la Société entomologique de France* (1845–1847).
- (2) The entry on the Official Index of Rejected and Invalid Works in Zoological Nomenclature relating to C.J.B. Amyot's *Annales de la Société entomologique de France* (1845–1847) is hereby corrected to include vol. 5, pp. 143–238, 453–543, t. 2, 7 in the pagination cited.

History of Case 3327

An application to amend the ruling given in Opinion 686 to eliminate confusion caused by the omission of part of the work by C.J.B. Amyot, *Entomologie Française. Rhynchotes, Méthode mononymique*, published in *Annales de la Société Entomologique de France* (1845–1847) was received from I.M. Kerzhner (*Zoological Institute, Russian Academy of Sciences, St. Petersburg 199034, Russia*) on 30 September 2004. After correspondence the case was published in *BZN* **62**: 146–148 (September 2005). The title, abstract and keywords of the case were published on the Commission's website. A comment in support of the case was received from J.P. Duffels (*Institute for Biodiversity and Ecosystem Dynamics, Zoological Museum, Amsterdam, The Netherlands*) and circulated with the Voting Papers.

Decision of the Commission

On 1 June 2006 the members of the Commission were invited to vote on the proposals published in *BZN* **62**: 147. At the close of the voting period on 1 September 2006 the votes were as follows:

Affirmative votes – 18: Alonso-Zarazaga, Bock, Bouchet, Brothers, Halliday, Kerzhner, Lamas, Macpherson, Mahnert, Mawatari, Minelli, Ng, Papp, Patterson, Rosenberg, Song, Štys and van Tol.

Negative votes – none.

Original reference

The following is the original reference to the correction of an entry on the Official Index of Rejected and Invalid Works in Zoological Nomenclature by the ruling given in the present Opinion:

International Commission on Zoological Nomenclature. 1963. Opinion 686. BZN **20**: 423.

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Work placed on the Official Index of Rejected and Invalid Works in Zoological Nomenclature

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INFORMATION AND INSTRUCTIONS FOR AUTHORS

The following notes are primarily for those preparing applications to the Commission; other authors should comply with the relevant sections. Applications should be prepared in the format of recent parts of the *Bulletin*; manuscripts not prepared in accordance with these guidelines may be returned.

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Text. Typed in double spacing, this should consist of numbered paragraphs setting out the details of the case and leading to a final paragraph of formal proposals to the Commission. Text references should give dates and pages in parentheses, e.g. 'Daudin (1800, p. 49) described . . .'. The Abstract will be prepared by the Commission's Secretariat.

References. These should be given for all authors cited. Where possible, ten or more reasonably recent references should be given illustrating the usage of names which are to be conserved or given precedence over older names. The title of periodicals should be in full and in italics; numbers of volumes, parts, etc. should be in arabic figures, separated by a colon from page numbers. Book titles should be in italics and followed by the number of pages and plates, the publisher and place of publication. More detailed instructions on the preparation of references are given in *BZN* **59**: 159–160.

Submission of Application. One copy should be sent to: Executive Secretary, the International Commission on Zoological Nomenclature, c/o The Natural History Museum, Cromwell Road, London SW7 5BD, U.K. It would help to reduce the time it takes to process the large number of applications received if the typescript could be accompanied by a disk with copy in IBM PC compatible format, or the script sent via e-mail to 'iczn@nhm.ac.uk' within the message or as an attachment (disks and attachments to be in Word, rtf or ASCII text).

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<i>Mammal Species of the World. A taxonomic and geographic reference.</i> 2005. Don E. Wilson & DeeAnn M. Reeder (Eds.). Ed. 3, 2 vols., 2142 pp. Johns Hopkins University Press, Baltimore. ISBN 0-8018-8221-4. Anthea Gentry	215
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