OPINION 1921

PETROPEDETINAE Noble, 1931, CACOSTERNINAE Noble, 1931 and PHRYNOBATRACHINAE Laurent, 1941 (Amphibia, Anura): given precedence over HEMIMANTIDAE Hoffmann, 1878, and PHRYNOBATRACHINAE: not given precedence over PETROPEDETINAE

Keywords. Nomenclature; taxonomy; Amphibia; Anura; RANIDAE; frogs; HEMIMANTIDAE; PHRYNOBATRACHINAE; PETROPEDETINAE; CACOSTERNINAE; *Phrynobatrachus*; *Petropedetes*; *Cacosternum*; *Hemimantis*; Africa.

Ruling

(1) Under the plenary powers it is hereby ruled that the family-group name PETROPEDETINAE Noble, 1931 and other family-group names based on *Petropedetes* Reichenow, 1874, CACOSTERNINAE Noble, 1931 and other family-group names based on *Cacosternum* Boulenger, 1887, and PHRYNOBATRACHINAE Laurent, 1941 and other family-group names based on *Phrynobatrachus* Günther, 1862, are given precedence over HEMIMANTIDAE Hoffmann, 1878 and other family-group names based on *Hemimantis* Peters, 1863.

(2) The following names are hereby placed on the Official List of Generic Names in Zoology:
   (a) *Petropedetes* Reichenow, 1874 (gender: masculine), type species by monotypy *Petropedetes cameronensis* Reichenow, 1874;
   (b) *Cacosternum* Boulenger, 1887 (gender: neuter), type species by monotypy *Cacosternum nanum* Boulenger, 1887;
   (c) *Phrynobatrachus* Günther, 1862 (gender: masculine), type species by monotypy *Phrynobatrachus natalensis* Günther, 1862 (a junior subjective synonym of *Stenorhynchus natalensis* A. Smith, 1849);
   (d) *Hemimantis* Peters, 1863 (gender: masculine), type species by monotypy *Hemimantis calcaratus* Peters, 1863.

(3) The following names are hereby placed on the Official List of Specific Names in Zoology:
   (a) *cameronensis* Reichenow, 1874, as published in the binomen *Petropedetes cameronensis* (specific name of the type species of *Petropedetes* Reichenow, 1874);
   (b) *nanum* Boulenger, 1887, as published in the binomen *Cacosternum nanum* (specific name of the type species of *Cacosternum* Boulenger, 1887);
   (c) *natalensis* A. Smith, 1849, as published in the binomen *Stenorhynchus natalensis* (senior subjective synonym of *Phrynobatrachus natalensis* Günther, 1862, the type species of *Phrynobatrachus* Günther, 1862);
   (d) *calcaratus* Peters, 1863, as published in the binomen *Hemimantis calcaratus* (specific name of the type species of *Hemimantis* Peters, 1863).

(4) The following names are hereby placed on the Official List of Family-Group Names in Zoology:
   (a) PETROPEDETINAE Noble, 1931 (type genus *Petropedetes* Reichenow, 1874) with the endorsement that it and other family-group names based on

Petropedetes are to be given precedence over HEMIMANTIDAE Hoffmann, 1878 (type genus *Hemimantis* Peters, 1863) and other family-group names based on *Hemimantis* and (by the first reviser action of Dubois, 1982) over CACOSTERNINAE Noble, 1931 (type genus *Cacosternum* Boulenger, 1887) and other family-group names based on *Cacosternum* whenever they are considered to be synonyms;

(b) CACOSTERNINAE Noble, 1931 (type genus *Cacosternum* Boulenger, 1887) with the endorsement that it and other family-group names based on *Cacosternum* are to be given precedence over HEMIMANTIDAE Hoffmann, 1878 (type genus *Hemimantis* Peters, 1863) and other family-group names based on *Hemimantis* but are not to be given priority over PETROPEDETINAE Noble, 1931 (type genus *Petropedetes* Reichenow, 1874) and other family-group names based on *Petropedetes* whenever they are considered to be synonyms;

(c) PHRYNOBATRACHINAE Laurent, 1941 (type genus *Phrynobatrachus* Günther, 1862) with the endorsement that it and other family-group names based on *Phrynobatrachus* are to be given precedence over HEMIMANTIDAE Hoffmann, 1878 (type genus *Hemimantis* Peters, 1863) and other family-group names based on *Hemimantis* whenever they are considered to be synonyms;

(d) HEMIMANTIDAE Hoffmann, 1878 (type genus *Hemimantis* Peters, 1863) with the endoresement that it and other family-group names based on *Hemimantis* are not to be given priority over PETROPEDETINAE Noble, 1931 (type genus *Petropedetes* Reichenow, 1874) and other family-group names based on *Petropedetes*, CACOSTERNINAE Noble, 1931 (type genus *Cacosternum* Boulenger, 1887) and other family-group names based on *Cacosternum*, and PHRYNOBATRACHINAE Laurent, 1941 (type genus *Phrynobatrachus* Günther, 1862) and other family-group names based on *Phrynobatrachus* whenever they are considered to be synonyms.

(5) The following names are hereby placed on the Official Index of Rejected and Invalid Generic Names in Zoology:

(a) *Stenorhynchus* A. Smith, 1849 (a junior homonym of *Stenorhynchus* Hemrich, 1820);

(b) *Leptoparius* Peters, 1863 (a junior objective synonym of *Stenorhynchus* A. Smith, 1849).

History of Case 2362

An application for the conservation of the family-group name PHRYNOBATRACHINAE Laurent, 1941 by giving it precedence over HEMIMANTIDAE Hoffmann, 1878, PETROPEDETINAE Noble, 1931 and CACOSTERNINAE Noble, 1931 was received from Prof Alain Dubois (*Muséum National d'Histoire Naturelle, Paris, France*). After correspondence the case was published in BZN **51**: 240–246 (September 1994). Notice of the case was sent to appropriate journals.

A comment in support of the application from Prof J.C. Poynton (*The Natural History Museum, London, U.K.*; formerly of *University of Natal, Pietermaritzburg, South Africa*) was published in BZN **52**: 269–270 (September 1995).

A comment from Dr Darrel R. Frost (*American Museum of Natural History, New York, N.Y., U.S.A.*) & Prof Jay M. Savage (*University of Miami, Coral Gables, Florida,*

U.S.A.), published in BZN **52**: 270–271, supported the proposal to give the names PETROPEDETINAE, CACOSTERNINAE and PHRYNOBATRACHINAE precedence over the unused name HEMIMANTIDAE, but opposed the conservation of PHRYNOBATRACHINAE by giving it precedence over PETROPEDETINAE. They proposed (BZN **52**: 270–271) that where the latter two names were concerned priority should be followed. Comments from Dr Barry T. Clarke (*The Natural History Museum, London, U.K.*) and from the author of the application, published in BZN **52**: 342–345 (December 1995), supported the application and gave reasons for rejecting the precedence of PETROPEDETINAE over PHRYNOBATRACHINAE put forward by Frost & Savage.

The application was sent to the Commission for voting on 1 September 1996. Precedence of PETROPEDETINAE, CACOSTERNINAE and PHRYNOBATRACHINAE over the earliest but unused name HEMIMANTIDAE had been advocated by the author of the application (BZN **51**: 240–246, **52**: 344–345) and also by those who commented (Poynton, Frost & Savage, and Clarke). This proposal was put forward for voting as Proposal A.

Conservation of the name PHRYNOBATRACHINAE for a family-group taxon that includes both *Phrynobatrachus* and *Petropedetes* by giving it precedence over PETROPEDETINAE (Proposal B), and adoption of PETROPEDETINAE as the senior name for the same taxon (Proposal C), were offered as alternatives for voting. Proposal B was put forward by Dubois (BZN **51**: 243–244); Proposal C was that of Frost & Savage (BZN **52**: 270–271).

The Commission approved Proposal A. A majority of Commissioners voted in favour of Proposal B rather than Proposal C (11 votes for Proposal B and 10 for Proposal C; five Commissioners did not vote), but Proposal B failed to reach the required two-thirds majority for approval.

Two Commissioners commented on their voting papers. Cogger noted: 'I agree with all the proponents in this case that there is a need to give precedence to the family-group names PETROPEDETINAE Noble, 1931 and PHRYNOBATRACHINAE Laurent, 1941 over the unused senior name HEMIMANTIDAE Hoffmann, 1878 (Proposal A). While I have cast the remainder of my vote in this case for Proposal C, I should make it clear that in doing so I was not persuaded by the arguments of Frost & Savage - arguments convincingly rejected by Prof Dubois (BZN **52**: 344–345). Conversely, the arguments presented by Prof Dubois and Dr Clarke failed to persuade me that, following the elimination from contention of the unused HEMIMANTIDAE, priority should not otherwise apply. This end is effectively achieved by adoption of Proposal C'. Heppell commented: 'As HEMIMANTIDAE has never been used as valid, it should not now threaten any family names proposed later (Proposal A). I am happy to let the remaining family names take precedence according to their natural priority and thus vote for PETROPEDETINAE to be placed on the Official List without endorsement against PHRYNOBATRACHINAE (Proposal C)'.

Under the Bylaws the proposal to conserve the name PHRYNOBATRACHINAE Laurent, 1941 by giving it precedence over PETROPEDETINAE Noble, 1931 (Proposal B), against that to adopt PETROPEDETINAE as the senior name (Proposal C), required a revote. Completion of the voting on this proposal would allow an Opinion to be published combined with the ruling giving HEMIMANTIDAE least priority.

It was noted on the voting papers that, as stated in para. 9 of the application, Article 40 of the Code does not apply in this case and insertions of the date '(1878)'

against the names PETROPEDETINAE Noble, 1931, CACOSTERNINAE Noble, 1931 and PHRYNOBATRACHINAE Laurent, 1941 (paras. 9, 9(1) and 10(4)(a)-(c)) would be incorrect. The date 1878 has not been cited for these names in this Opinion.

Decision of the Commission

On 16 September 1996 the members of the Commission were invited to vote on the proposals to give the family-group names PETROPEDETINAE Noble, 1931, CACOSTERNINAE Noble, 1931 and PHRYNOBATRACHINAE Laurent, 1941 precedence over HEMIMANTIDAE Hoffmann, 1878 (published in BZN **51**: 244 and **52**: 270–271; Proposal A). At the close of the voting period on 16 December 1996 the votes were as follows:

Affirmative votes — 20: Bock, Brothers, Cocks, Cogger, Eschmeyer, Heppell, Kerzhner, Kraus, Lehtinen, Macpherson, Martins de Souza, Mawatari, Minelli, Nielsen, Nye, Papp, Patterson, Savage, Song, Štys

Negative votes — 4: Bouchet, Kabata, Mahnert and Schuster.

Dupuis abstained.

Ride was on leave of absence.

On 16 September 1996 the Commissioners had also been invited to give the name PHRYNOBATRACHINAE precedence over PETROPEDETINAE (published in BZN **51**: 243–244; Proposal B) against that to adopt PETROPEDETINAE as the senior name (published in BZN **52**: 270–271; Proposal C); however, this proposal did not receive the necessary two-thirds majority and on 1 September 1998 they were invited to revote on proposals B and C. At the close of this voting period on 1 December 1998 the votes were as follows:

Proposal B — 10: Bouchet, Cocks, Kabata, Macpherson, Martins de Souza, Mawatari, Minelli, Nye, Papp, Schuster

Proposal C — 10: Bock, Brothers, Cogger, Eschmeyer, Kerzhner, Mahnert, Nielsen, Patterson, Savage and Štys.

No votes were received from Dupuis, Lehtinen, Kraus and Song.

Heppell and Ride were on leave of absence.

The Commission approved the proposal to give the family-group names PETROPEDETINAE Noble, 1931, CACOSTERNINAE Noble, 1931 and PHRYNOBATRACHINAE Laurent, 1941 precedence over HEMIMANTIDAE Hoffman, 1878, but since there was no majority for PHRYNOBATRACHINAE to be given precedence over PETROPEDETINAE priority applies to these two names. The name PETROPEDETINAE has precedence over CACOSTERNINAE Noble, 1931 by the first reviser action of Dubois (1982).

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:

CACOSTERNINAE Noble, 1931, *The biology of the Amphibia*, p. 540.

Cacosternum Boulenger, 1887, *Annals and Magazine of Natural History*, (5)**20**: 51.

calcaratus, *Hemimantis*, Peters, 1863, *Monatsberichte der Königlichen Preussischen Akademie der Wissenschaften zu Berlin*, **1863**: 452. (Issued in the serial in 1864 but published as a separate in 1863).

cameronensis, *Petropedetes*, Reichenow, 1874, *Archiv für Naturgeschichte*, **40**(1.3): 290.

HEMIMANTIDAE Hoffmann, 1878, *in* Bronn, H.G., *Die Klassen und Ordnungen des Thier-Reichs wissenschaftlich dargestellt in Wort und Bild*, vol. 6, part 2, pp. 613, 635.

Hemimantis Peters, 1863, *Monatsberichte der Königlichen Preussischen Akademie der Wissenschaften zu Berlin*, **1863**: 451.

Leptoparius Peters, 1863, *Monatsberichte der Königlichen Preussischen Akademie der Wissenschaften zu Berlin*, **1863**: 452.

nanum, *Cacosternum*, Boulenger, 1887, *Annals and Magazine of Natural History*, (5)**20**: 52.

natalensis, *Stenorhynchus*, A. Smith, 1849, *Illustrations of the zoology of South Africa* . . . Reptilia, Appendix, pp. 23–24.

Petropedetes Reichenow, 1874, *Archiv für Naturgeschichte*, **40**(1.3): 290.

PETROPEDETINAE Noble, 1931, *The biology of the Amphibia*, p. 520.

PHRYNOBATRACHINAE Laurent, 1941, *Revue de Zoologie et de Botanique Africaines*, **34**(2): 192.

Phrynobatrachus Günther, 1862, *Proceedings of the Zoological Society of London*, **1862**: 190.

Stenorhynchus A. Smith, 1849, *Illustrations of the zoology of South Africa* . . . Reptilia, Appendix, pp. 23–24.

The following is the reference for the first reviser action giving the family-group name PETROPEDETINAE Noble, 1931 precedence over CACOSTERNINAE Noble, 1931:

Dubois, A. 1982. BZN **39**: 136.