

REQUEST FOR A RULING ON WHETHER THE GENERIC NAME *DIEMICTYLUS* RAFINESQUE, 1820, OR THE GENERIC NAME *NOTOPHTHALMUS* RAFINESQUE, 1820, IS TO BE USED FOR THE EASTERN NORTH AMERICAN NEWT (CLASS AMPHIBIA). Z.N.(S.)728

By Hobart M. Smith (*Department of Zoology, University of Illinois, Urbana, Illinois, U.S.A.*)

The present application arises out of changes made over the last eleven years in the rules for determining the relative precedence of synonyms published simultaneously. Article 28 of the old Règles stated that questions of this sort were to be determined by the action of the first reviser, but this was replaced by the Thirteenth Congress (Paris, 1948) by a rule that such cases must be decided by page and line priority (*Bull. zool. Nomencl.* 4 : 330-331). The Fourteenth Congress (Copenhagen, 1953) revoked the Paris decision and restored the "first reviser" principle (*Copenhagen Decisions zool. Nomencl.* : 66-67, paras. 123-124), and this was endorsed by the Fifteenth Congress (London, 1958).

2. In 1952, when I first submitted this application, the Rules then in force required the application of page and line priority to this case, and on the basis of usage up to that time, it seemed to me that the plenary powers should be used to apply instead the first reviser rule. The Rules now in force require the application of the first reviser principle, so that my original proposal would no longer require the use of the plenary powers. I am not now, however, so certain as I then was that this course would be desirable, for while European usage follows the first reviser principle, recent American usage follows page and line precedence. It is for this reason that the Commission is asked to settle the question, for the existing diversity of usage is not likely to be resolved by zoologists themselves.

3. In the *Annals of Nature*, 1820 : 5 Rafinesque proposed two new subgenera of *Triturus*, namely *Diemictylus* (line 8), to contain only his new species *Triturus viridescens*, and *Notophthalmus* (lines 26-27), to contain only his new species *Triturus miniatus*. These two species, which are the type-species by monotypy of their respective subgenera, have been universally agreed to be congeneric, if not conspecific, and the names are now held to represent the aquatic and terrestrial forms respectively of the same subspecies. The two subgeneric names are, moreover, the oldest available names for the genus (of present classification) concerned. It is clear that *Diemictylus* has position priority over *Notophthalmus*, and *viridescens* over *miniatus*.

4. The earliest disposition of the subgeneric names was that of Baird (1850, *J. Acad. nat. Sci. Philad.* (2) 1(4) : 284). He expressly selected *Notophthalmus*, and synonymized *Diemictylus* with it. He altered the name to *Notophthalmus*, but this was an erroneous subsequent spelling with no status in nomenclature, and he gave an unequivocal reference to Rafinesque. In the same year Gray (*Cat. Bat. Grad. brit. Mus.* : 22) accepted Baird's revision,



with the names correctly spelled, and with clear references to Rafinesque and Baird. Under the "first reviser rule", therefore, *Notophthalmus* was selected in preference to *Diemictylus* in the year 1850 on two separate occasions.

5. The species *Triturus viridescens* was established on line 3 of page 5 of the *Annals of Nature*, with a description. *Triturus miniatus* was established on line 17 of the same page, with a description. Authors prior to Cope (1859, *Proc. Acad. nat. Sci. Philad.* 11 : 126) regarded the species as separate, although Hallowell (1856, *ibid.* 8 : 6-11 ; 1858, *J. Acad. nat. Sci. Philad.* (2) 3 : 337-366) expressed the opinion that they were but one species. Cope, however, (*op. cit.*) expressly recognized *viridescens* (in the binomen *Diemictylus viridescens*), synonymizing *miniatus* with it. In acting as first reviser at the specific level, Cope thus adopted the principle of line-priority. His choice of specific name has been generally followed, together with Baird's choice of generic name.

6. While it is clear that *Notophthalmus* is the valid genus-group name, and *viridescens* the valid species-group name under the Rules at the present time, and while also there is no lack of uniformity at the lower level, it is not clear that the application of the Rules would be in the best interests of stability of nomenclature at the higher level. This is on account of the diversity of usage by different authors of the two genus-group names involved, and it is further complicated by the fact that, until the definitive work of Wolterstorff & Herre (1935, *Arch. Naturg.* N.F. 4(2) : 217-229) had clarified the taxonomic situation, the generic names *Molge* and *Triturus* were also in use for the species in question. The usage of the two names of Rafinesque in selected works of significance is summarized below :

#### *Diemictylus*

Hallowell, 1856, *op. cit.* (in the unjustified emendation *Diemyctylus*), 1858, *op. cit.* (as *Diemyctylus*) ; Cope, 1859, *op. cit.* (as *Diemyctylus*, with the erroneous subsequent spelling *Diemichylus* on p. 128), 1889, *Bull. U.S. nat. Mus.* 34, as *Diemyctylus* ; Gunther, 1901, *Biol. centr.-Amer.*, signature 38 ; Stejneger, 1907, *Bull. U.S. nat. Mus.* 58 ; Wolterstorff & Herre, 1935, *op. cit.* ; Smith & Taylor, 1948<sup>1</sup>, *Bull. U.S. nat. Mus.* 194 ; Brown, B. C., 1950<sup>1</sup>, *Baylor Univ. Studies* ; Bragg, A. N., 1952<sup>1</sup>, *Wasmann J. Biol.* 10(2) : 241-250 ; Schwartz & Duellman, 1952, *Bull. Chicago Acad. Sci.* 9(12) : 219-227 ; and Schmidt, K. P., 1953, *Checklist N. Amer. Amphib. Rept.*, 6th ed.

#### *Notophthalmus*

Baird, 1850, *op. cit.* (in the erroneous subsequent spelling *Notophthalmus*) ; Gray, 1850, *op. cit.* (in the erroneous subsequent spelling *Notophthalmia*), 1858, *op. cit.* (in the erroneous subsequent spelling *Notophthalma*) ; Gill, 1907, *Science*, N.S. 26 : 256 ; Stejneger & Barbour, 1917, *Checklist N. Amer. Amphib. Rept.*, 1923, *ibid.*, 2nd ed. ; Herre, 1936, *Abh. Ber. Mus. Nat. Magdeburg* 7(1) : 79-98 ; Mertens, 1951, *Zwischen Atlantik und Pazifik* ; von Wahlert,

<sup>1</sup> These three usages reflect the rapid adoption of Wolterstorff & Herre's 1935 taxonomy, and of *Diemictylus* with it ; Herre's 1936 paper pointing out that *Notophthalmus* is the correct name under the Rules having been generally overlooked.



1952, *Copeia* 1952(1) : 29-30, 1953, *Herpetologica* 9 : 95-99.

7. With usage thus divided between the two names, it is clear that only a ruling from the Commission can put a stop to the existing confusion, and that this must be guided to some extent by the wishes of herpetologists. I may add that, although in 1953 (Smith, *op. cit.*) I concluded that steps should be taken to conserve *Notophthalmus*, and requested others to adopt that name, recent American usage has tended to follow the example set by Cope, Stejneger (1907) and Schmidt (1953) in adopting *Diemictylus*, whereas recent European usage has tended to favour *Notophthalmus*. I therefore set out below the precise results of each of the two alternative courses open to the Commission in this case, and I appeal to my colleagues to inform the Commission of their views, so that the eventual decision may be taken on as broad a basis of informed comment as possible.

8. The genus variously known as *Notophthalmus* and *Diemictylus* is currently referred to the family SALAMANDRIDAE, and neither of those genus-group names has ever been used as the basis of a family-group name. No family-group name problem therefore arises in this case.

9. I therefore request the International Commission on Zoological Nomenclature :

- (1) to decide whether or not to use its plenary powers to determine the generic name to be used for the eastern North American newt, and then to adopt whichever of the two following alternatives is appropriate :

#### ALTERNATIVE A

- (2) (a) to use its plenary powers to suppress the generic name *Notophthalmus* Rafinesque, 1820, for the purposes of the Law of Priority but not for those of the Law of Homonymy ;
- (b) to place the generic name *Diemictylus* Rafinesque, 1820 (gender : masculine), type-species, by monotypy, *Triturus viridescens* Rafinesque, 1820, on the Official List of Generic Names in Zoology ;
- (c) to place the specific name *viridescens* Rafinesque, 1820, as published in the binomen *Triturus viridescens* (type-species of *Diemictylus* Rafinesque, 1820), on the Official List of Specific Names in Zoology ;
- (d) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
  - (i) *Notophthalmus* Rafinesque, 1820, as suppressed under the plenary powers in (a) above ;
  - (ii) *Diemyctylus* Hallowell, 1856 (an unjustified emendation of *Diemictylus* Rafinesque, 1820) ;
  - (iii) *Diemichylus* Cope, 1859, and *Diemyctelus* Gunther, 1901, erroneous subsequent spellings of *Diemictylus* Rafinesque, 1820 ;
  - (iv) *Notophthalmus* Baird, 1850, *Notophthalmia* Gray, 1850, and *Notophthalma* Gray, 1858 (erroneous subsequent spellings of *Notophthalmus* Rafinesque, 1820).



## ALTERNATIVE B

- (3) (a) to place the generic name *Notophthalmus* Rafinesque, 1820 (a name selected by Baird, 1850, as first reviser, in preference to *Diemictylus*) (gender : masculine), type-species, by monotypy, *Triturus miniatus* Rafinesque, 1820, on the Official List of Generic Names in Zoology ;
- (b) to place the specific name *viridescens* Rafinesque, 1820 (the oldest available name through the action of Cope, 1859, for the type-species of *Notophthalmus* Rafinesque, 1820) on the Official List of Specific Names in Zoology ;
- (c) to place the following generic names on the Official Index of Rejected and Invalid Generic Names in Zoology :
- (i) to (iii) as (ii) to (iv) under Alternative A above.



Smith, Hobart M. 1960. "Request for a ruling on whether the generic name *Diemictylus* Rafinesque, 1820, or the generic name *Notophthalmus* Rafinesque, 1820, is to be used for the Eastern North American Newt (Class Amphibia)." *The Bulletin of zoological nomenclature* 17, 205–208.

<https://doi.org/10.5962/bhl.part.29593>.

**View This Item Online:** <https://www.biodiversitylibrary.org/item/44459>

**DOI:** <https://doi.org/10.5962/bhl.part.29593>

**Permalink:** <https://www.biodiversitylibrary.org/partpdf/29593>

#### **Holding Institution**

Natural History Museum Library, London

#### **Sponsored by**

Natural History Museum Library, London

#### **Copyright & Reuse**

Copyright Status: In copyright. Digitized with the permission of the rights holder.

Rights Holder: International Commission on Zoological Nomenclature

License: <http://creativecommons.org/licenses/by-nc-sa/3.0/>

Rights: <https://biodiversitylibrary.org/permissions>

This document was created from content at the **Biodiversity Heritage Library**, the world's largest open access digital library for biodiversity literature and archives. Visit BHL at <https://www.biodiversitylibrary.org>.