BOA LINNAEUS, 1758 (REPTILIA); PROPOSED DESIGNATION OF A TYPE-SPECIES UNDER THE PLENARY POWERS WITH ADDITION OF CONSTRICTOR LAURENTI, 1768, TO THE OFFICIAL LIST.

Z.N.(S.) 1188

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

In 1758 Linnaeus established a genus Boa including nine species, as follows: scytale, canina, hipnale, constrictor, murina, cenchria, orophias, enydris and hortulana. These species are now placed in four genera (canina, hipnale, orophias, enydris and hortulana in Boa; scytale and murina in Eunectes; constrictor in Constrictor; and cenchria in Epicrates). The types of Eunectes and Epicrates are not now open to question. Unfortunately the others have never been agreed upon. All four genera are now, and long have been, placed in the family BOIDAE, subfamily BOINAE.

- 2. Works published before 1900 generally accepted constrictor as the type of Boa, based directly or indirectly upon Fitzinger's (1843: 24) explicit designation (the earliest known except for the possible designation by Laurenti discussed subsequently), and as a result the common as well as scientific name of "boa constrictor" became well established for the large and common Central and South American constrictor snake. The species canina was referred to Corallus Daudin, type Corallus obtusirostris Daudin = Boa enydris Linnaeus.
- 3. However, in 1901 Stejneger argued that Laurenti (1768) fixed canina as the type of Boa, and constrictor as the type of Laurenti's new genus Constrictor. With no significant exception this arrangement was accepted until 1951 when Forcart disputed Stejneger's reasoning and reinstated the pre-1900 terminology. Most authors since then have maintained the Stejnegerian arrangement, with a few notable exceptions. Since the animals involved are important zoo animals, and are frequently referred to in the literature, an authoritative fixation of names is highly desirable. Although in my opinion the spirit of the Code requires maintenance of the Stejnegerian interpretation, there is no completely unequivocal basis for this view, and the pre-1900 arrangement could thus be justified on other grounds. An authoritative fixation requires a decision by the International Commission on Zoological Nomenclature, whose consideration of the case is here requested.
- 4. A factor of major significance in the present context is the fact that, some years after publishing his 1901 analysis, Stejneger submitted a hypothetical case, using no scientific names but referring to Linnaeus, Laurenti and Fitzinger by proper name and date, to the International Commission for its consideration. Unfortunately, the case was so ingenuously presented, omitting some facts and distorting others, that the Commission had in reality little choice. In Opinion 6 (1910) the Commission concurred with Stejneger's conclusion of 1901.

5. Stejneger reaffirmed his stand in reviewing Laurenti's genera in 1936, repeating his assertion that the type of *Boa* Linnaeus is *canina* Linnaeus by virtue of monotypy, with the security of approval of Opinion 6 regarding the

particular context of Laurenti's work as providing monotypy.

6. In 1953 the Commission finally rejected the theory of its action in 1910 in Opinion 6, as expressed in the Copenhagen Decisions (1953: 72): "The Colloquium recommends that . . . Opinion 6 . . . be revoked . . . but . . . at the same time . . . that protection should be accorded in any case where, on the faith of Opinion 6, the species currently accepted as the type-species of any given nominal genus has been determined in the foregoing manner and where, without such protection, it would be necessary to change the type-species of the genus concerned."

7. No more appropriate application of this recommendation could possibly be made than to the present case, since directly from it Stejneger constructed his hypothetical case for which Opinion 6 was rendered. Since, however, (1) the Stejneger interpretation had been long accepted, (2) to reject it does require a change of commonly-used names, and (3) the change would not be in the interest of stability and would therefore be contrary to the spirit of the Code, the Commission is requested to designate canina as the type of Boa, placing both names on the Official Lists. So far as known, canina has not served as the type of any other generic names. Boa is, however, the type-

genus of the family BOIDAE.

- 8. This request is made in spite of the facts that the general policy advocated by Opinion 6 is unwarranted, and even if it were, that monotypy itself could not possibly be a real factor in the present case. It is true that the three nominal species, all new, placed by Laurenti in the genus Boa (thalassina, aurantiaca, exigua) are synonyms of Boa canina Linnaeus (being based upon the same types), but none of them was mentioned by Linnaeus, and their conspecificity does not render canina the type of Boa by monotypy, especially since Boa is not Laurenti's name. Had Laurenti originated the name Boa the type would indeed be canina, but since he did not, and none of his specific names under Boa was used by Linnaeus or designated as type of Boa Linnaeus, no objective grounds for regarding the type as fixed by Laurenti are evident.
- 9. The generic name Constrictor was proposed by Laurenti with five specific names, all new and none selected as type. However, formosissimus is based upon the same type (pl. 17, fig. 3, in Linnaeus's Amoen. Acad. 1:497) as Boa constrictor Linnaeus, and was therefore clearly a substitute for that name; Laurenti seemingly did not accept any of Linnaeus's specific names, consistently substituting his own. The principle of "hidden tautonymy", as expressed at the London meetings (1958) of the Section on Nomenclature of the International Congress of Zoology, would have provided an original designation of type, but this principle was rejected by the Commission (International Code of Zoological Nomenclature, 1961: xiii). The only subsequent designation of which I am aware is that of Forcart (1951: 198), who selected Constrictor formosissimus Laurenti (=Boa constrictor Linnaeus) as type of Constrictor Laurenti. This selection is consistent with usage and should be upheld by addition of the name Constrictor to the Official List. So far as

known, neither formosissimus nor constrictor has served as type for any other generic name, and Constrictor has never served as type for a family.

10. In summary, it is here requested that the Commission:

(1) use its plenary powers to set aside all designations of type-species for the nominal genus *Boa* Linnaeus, 1758, and having done so, designate *Boa canina* Linnaeus, 1758, to be the type-species of that genus;

(2) place the following generic names on the Official List of Generic Names

in Zoology:

- (a) Boa Linnaeus, 1758 (gender : feminine), type-species, by designation under the plenary powers in (1) above, Boa canina Linnaeus, 1758;
- (b) Constrictor Laurenti, 1768 (gender: masculine), type-species, by designation by Forcart, 1951, Boa constrictor Linnaeus, 1758;

(3) place the following specific names on the Official List of Specific Names in Zoology:

(a) canina Linnaeus, 1758, as published in the binomen Boa canina, holotype in the Royal Museum, Stockholm (fide Andersson, 1899: 27) (type-species of Boa Linnaeus, 1758);

(b) constrictor Linnaeus, 1758, as published in the binomen Boa constrictor, two syntypes in the Royal Museum, Stockholm (fide Andersson, 1899: 27–28) (type-species of Constrictor Laurenti, 1768);

(4) place the family name BOIDAE Gray, 1825 (: 209) (type-genus Boa Linnaeus, 1758) on the Official List of Family-Group Names in Zoology.

## LITERATURE CITED

Andersson, Lars G., 1899. Catalogue of Linnean type-specimens of snakes in the Royal Museum of Stockholm. K. svensk. Vetensk.-Akad. Handl. 24(4-6): 1-35

Fitzinger, Leopoldo, 1843. Systema reptilium. p. 106

Forcart, Lothar, 1951. Nomenclature remarks on some generic names of the snake family Boidae. Herpetologica 7: 197–199

Gray, J. E., 1825. A synopsis of the genera of reptiles and amphibia with a description of some new species. *Ann. Philos.* (n.s.) 10: 193-217

Hemming, Francis (Ed.), 1953. Copenhagen decisions in zoological nomenclature. Intern. Trust Zool. Nomencl., London. xxix, pp. 135

International Commission on Zoological Nomenclature, 1910. Opinions rendered by the International Commission on Zoological Nomenclature. Opinions 1–25, Smithsonian Inst. Publ. 1938: 1–61

Stejneger, Leonhard, 1901. An annotated list of batrachians and reptiles collected in the vicinity of La Guaira, Venezuela, with description of two new species of snakes. *Proc. U.S. nat. Mus.* **24**: 179–192

——, 1936. Types of the amphibian and reptilian genera proposed by Laurenti in 1768. Copeia 1936(2): 133-141



Smith, Hobart M. 1962. "Boa Linnaeus, 1758 (Reptilia); proposed designation of a type-species under the plenary powers with addition of Constrictor Laurenti, 1768, to the Official List." *The Bulletin of zoological nomenclature* 19, 205–207.

View This Item Online: <a href="https://www.biodiversitylibrary.org/item/44461">https://www.biodiversitylibrary.org/item/44461</a>

Permalink: <a href="https://www.biodiversitylibrary.org/partpdf/34819">https://www.biodiversitylibrary.org/partpdf/34819</a>

## **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: <a href="http://creativecommons.org/licenses/by-nc-sa/3.0/">http://creativecommons.org/licenses/by-nc-sa/3.0/</a>

Rights: <a href="https://biodiversitylibrary.org/permissions">https://biodiversitylibrary.org/permissions</a>

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 <a href="https://www.biodiversitylibrary.org">https://www.biodiversitylibrary.org</a>.