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THE HISTORY OF *ELAPS COLLARIS* SCHLEGEL
1837-1937

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CURATOR OF REPTILES

Except for the few species which have been brought to light in unusual numbers by the clearing of land, the poisonous coral snakes are relatively rare in museum collections. This rarity has been the principal difficulty in obtaining an adequate knowledge of most of the species. A coral snake collected in the course of field work in ornithology in British Guiana, by Mr. E. R. Blake of the staff of Field Museum, well illustrates the slow growth of knowledge of these creatures, for it is the first specimen with a definite locality of the species *Elaps collaris*, described by Schlegel a hundred years ago. The history of this species affords an interesting example of the vicissitudes which may beset the taxonomy of the coral snakes.

The specimen in question was collected in the Oko Mountains, in northwestern British Guiana, April 22, 1937. In having a nuchal collar, yellow ventral spots with no tendency to form rings on the body, and in the broad separation of the first pair of lower labials by the mental, it obviously resembles *Micrurus narduccii* (Jan), of Ecuador and Peru. It is clearly distinct from that species, however, in the more posterior position of the nuchal collar; in having only 215 ventrals (in a male specimen), 35 fewer than the minimum known in Andean specimens of *narduccii*; and in having a temporal formula O-1, the anterior temporal being absent on each side, due to the upward extension of the sixth labial to meet the parietal. Having only recently reviewed the genus *Micrurus*, I would have had no hesitation in describing this specimen as the type of a new species, had it not been for my manuscript note on an unrecorded specimen in the Museum d'Histoire Naturelle in Paris, examined in 1932. This specimen, No. 4626 c, a female, presented by Mme. Hyver and said to have come from "Guyane," has 250 ventrals, and agrees with the new specimen in the striking temporal character, which is

otherwise unknown in *Micrurus narducci*. A further note suggests the possibility that this specimen may be the type of *Elaps gastrodelus* Duméril and Bibron, which I think unlikely; limitations of time prevented further investigation of this problem. The reference of *Elaps gastrodelus* to the synonymy of *Elaps collaris* by Jan and subsequent authors, however, led me to examine the description of this form, which has appeared in all lists since 1886 as *Hemibungarus collaris*, said to be from the Philippines.

Reference to Schlegel's original description and figures (1837, p. 448, and 1844, pl. 46, figs. 10-11) and to Jan's admirable plate (1873, pl. 1, fig. 1) is sufficient to identify our new specimen beyond question as *collaris*. The agreement extends to details of coloration, such as the diffuse light markings on the anterior head shields. The attribution to the Philippine fauna appears to have been accomplished in successive stages; Jan lists it under his "Specie asiatiehe" in 1863 (1863, p. 114), with *Elaps gastrodelus* assigned to its synonymy, as in the Paris Museum and in Stuttgart; he retains the question mark after "Manilla?" in this work, although he was positive about its Philippine origin in earlier references (1859, pp. 509, 510). Boettger, in drawing up a list of the Philippine fauna (1886, p. 117), is responsible for the transfer to the oriental genus *Hemibungarus* and for dropping the query after the locality, no doubt, however, in consequence of Schlegel's own suggestion in the text of the "Abbildungen," (1844, p. 137). Boulenger's concurrence in this allocation, in the Catalogue of Snakes (1896, p. 393), insured its perpetuation, and Taylor (1922, p. 269) merely cites the synonymy, quotes Boulenger's description, and remarks on the rarity of the species.

Duméril and Bibron suggest the possible "Antillean" origin of *Elaps gastrodelus*, and the Guianas are of course a sufficiently probable source for Schlegel's specimens. The character of the mental is otherwise unknown in *Hemibungarus*, and it is now evident that *Elaps collaris* with its total synonymy is to be erased from the Philippine fauna and transferred to that of the Guianas.

The two species *narducci* and *collaris*, however, are so thoroughly isolated in the genus *Micrurus* by their striking color pattern, slenderness of body, and by the meeting of the mental and chin shields, that in my recent review of the genus I was restrained from erecting a separate genus for *narducci* only by an aversion to monotypic genera. With two species allied by these characters, it is definitely advantageous to remove them from the overcrowded list of *Micrurus*. It may be objected that these characters, one of color pattern and

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the other adventitious in various species of *Micrurus* (Schmidt, 1936, p. 200), are too slender a basis of distinction. It is easy to point to the fact that color pattern characters may be the best of generic resemblances, as in our familiar garter snakes of the genus *Thamnophis*, whose sole scale difference from *Natrix*, the entire anal plate, is likewise an adventitious character in some genera and species.

Directly related to the genus *Micrurus*, in the family Elapidae, the new genus may be called:

Leptomicrurus¹ gen. nov.

Designated type.—*Elaps collaris* Schlegel

Diagnosis.—Slender-bodied snakes with the head not wider than the body, and with a very short tail; skull very elongate, parietal region without sagittal crest; maxilla without teeth other than the strongly enlarged fangs; bold yellow or white ventral spots present, without tendency to form annuli on the body; first pair of lower labials widely separated by the mental, which broadly meets the anterior chin shields.

The three American genera of the family Elapidae may be distinguished as follows:

A solid tooth posteriorly on the maxilla *Micruroides*

Maxilla without teeth other than the poison fangs.

Mental widely separating the first lower labials and in contact with the anterior chin shields; pattern not annulate

Leptomicrurus

Mental not in contact with the chin shields; pattern annulate

Micrurus

The two species of *Leptomicrurus* are as follows:

Temporal formula 0-1; a light nuchal crossband behind the parietals.

(The Guianas) *Leptomicrurus collaris* (Schlegel)

Temporal formula 1-1; light crossband crossing the parietals.

(Amazonian slopes of the Andes of Ecuador, Peru, and Bolivia) *Leptomicrurus narduccii* (Jan).

The specimen recorded as *Elaps narduccii* by Gomez (1918, p.254), from northern Brazil, requires re-examination and comparison with *collaris*. It may be assumed, however, to be an Andean specimen which by means unknown reached the private collection described by Gomez. It is quite possible, of course, for Andean species to appear at points on the Amazon far from their normal range, due to passive dispersal in floods.

¹ In allusion to the elongate slender body.

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