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NOMENCLATURAL PROBLEMS RELATING TO *ATRACTUS TRILINEATUS* WAGLER, 1828

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Introduction

The Rijksmuseum van Natuurlijke Historie material of *Brachyorrhos albus* (L., 1758), which had been on loan to Dr. S. B. McDowell, New York, was returned to us with the remark that reg.no. RMNH 48 from Java certainly did not belong to that species. Dr. McDowell suggested it might be an *Atractus*, and following his suggestion I examined this specimen. It soon became evident that Dr. McDowell had been right and that the specimen did belong to *Atractus trilineatus* Wagler, a species only known from Trinidad, eastern Venezuela and western Guyana (Hoogmoed, 1979: 275).

History

The specimen concerned (RMNH 48) belongs to the oldest part of the collection of the RMNH. It turned out to have been investigated by many ancient authors and it was discovered that it is a type specimen of several nominal species. Before trying to reconstruct the history of this specimen it seems useful to give a short description. It is a female with a total length of 205 mm, the snout-vent length is 194 mm, the tail length 11 mm. Ventrals 142, anal undivided, 11 subcaudals in two rows. Upper labials eight, of which the fourth and the fifth touch the eye, two postoculars, no preocular, temporals 1 + 2, lower labials eight, of which four are in contact with the chinshields. The specimen is very bleached, retaining traces of the original colouration on the head, tail and several sections of the body. Especially on the tail the three tell-tale dark brown longitudinal lines are well visible.

The snake is stored in a bottle bearing two labels. The oldest of these, attached to the outside of the bottle, reads as follows: "Rabdosoma lineatum D & B/Calamaria brachyorrhos/Kuhlii Boie/...8 + 13; .... + 0. ..../Java".

The data partly are illegible, but the above data could be ascertained with some trouble. The date of attachment of the old label is not known but from cir-

cumstantial evidence it could be inferred that it was put there by Schlegel in the eighteen fourties, after it had been on loan to the Paris Museum.

The more recent label, also attached to the outside of the bottle and bearing the printed heading "'s Rijks Mus. Nat. Hist. Leiden", bears the name *Rhabdosoma lineatum* D.B. which is crossed out and replaced by *Brachyorrhus albus*. The locality is given as "Java".

Apparently this specimen was first described by Kuhl (1820: 89) under the name *Coluber brachyurus*, having 138 + 13 ventrals + caudals. His description fits the specimen, which at that time apparently still was in prime condition. Although there are some slight differences in scale counts between those made by Kuhl and those made by me, I think these are permissable in the light of the differences in optical instruments at our disposal and the different way of counting scales.

Kuhl & van Hasselt (1822a, b) and Kuhl (1824) in a letter from Java to prof. Th. van Swinderen mentioned that they had reason to describe a new genus of snakes, based on eight species, which they named *Brachyura*. They stated that *Coluber brachyurus* Kuhl was a representative of this genus and also that the specimen depicted by Seba II. 77. 6 did belong to it. In a note to the French translation of this letter, H. Boie (in Kuhl, 1824: 81) correctly identified Seba's figure as "*Elaps furcatus* Schneid", which is a synonym of *Maticora intestinalis* (Laurenti, 1768). Thus *Brachuyra* Kuhl & van Hasselt is a mixture of species belonging to two different families, viz. Colubridae and Elapidae. From the context it is clear that *Coluber brachyurus* Kuhl should be regarded as the type species of the genus *Brachyura*.

A very important role in this entire problem is played by the unpublished manuscript of the "Erpétologie de Java", which was written by H. Boie and to which there are numerous references by F. Boie (1826, 1827), Schlegel (1826, 1827, 1837), and Duméril, Bibron & Duméril (1854). According to Schlegel (1826) this manuscript at that time had been finished for some time ("terminé depuis assez long-temps"), but had not been published due to several (unspecified) circumstances, the most important of which probably was lack of money. This manuscript was found in the archives of the Rijksmuseum van Natuurlijke Historie, together with a map containing coloured plates intended for this same work (Hoogmoed, 1980: 10, 22), during a study of Surinam snakes of the genus *Atractus*. Schlegel (1826: 236), basing himself on H. Boie's manuscript of the "Erpétologie de Java", mentions the genus *Brachyorrhos* Kuhl with type species "*Br. albus* Kuhl (*Col.* Linn.)". F. Boie (1826: 981) mentioned "4. Gatt. Brachyorrhos Kuhl. Spec. Col. albus Lin. u.v.a.". From these data it becomes clear that Boie's manuscript probably was written between 1824 and November 1825 when he departed for the, then Dutch, East Indies, and that between his translation of Kuhl's (1824) letter and his departure he discovered that *Coluber brachyurus* Kuhl, 1820, was different from *Coluber albus* Linnaeus.

This view is expressed in Boie's manuscript mentioned above. In it the same specimen described by Kuhl (1820) as *Coluber brachyurus* was redescribed under

the name *Brachyorrhos Kuhlii.* Here again the ventral scale formula 138 + 13 was mentioned and from the description it is clear that the specimen was in good condition and still was distinctly patterned. Again there is a slight difference in scale count, as H. Boie listed 16 rows of dorsal scales for this species which has a dorsal scale formula of 15-15-15, as demonstrated by RMNH 48. The description of *B. Kuhlii* in the manuscript is cited here:

"*Brachyorrhos Kuhlii*

Brach. — seriebus squamarum trunci 16; supra ex aeneo fuscus, lineis longitudinalibus tribus absoletis, subtus albidus 138 + 13".

In addition to this description he provides descriptions of several other species of *Brachyorrhos* and a description of the genus itself (Hoogmoed, 1980: 10). From the genus description it is not clear which species H. Boie considered the type species of his *Brachyorrhos*, the description of which either would fit *Brachyorrhos albus* (L.) as understood today and all species of *Atractus* and several other genera as well. Fortunately, Schlegel (1826) who first published the name *Brachyorrhos*, indicated "*Br. albus* Kuhl (Col. Linn.)" as type species, thus fixing its status. The same was done by F. Boie (1826) and again in 1827 when he published the description of *Brachyorrhos* as provided in the manuscript.

The views of H. Boie were expressed in a very abbreviated way by F. Boie (1826). Schlegel (1826, 1827) gave a list of species belonging to "*Brachyorrhos* Kuhl", amongst which" — *Kuhli* B (*brachyurus* Kuhl) N. esp." This is a validly published name, accompanied by a bibliographic reference to a previously published description. Thus, Schlegel becomes the author of *Brachyorrhos Kuhli.*

F. Boie (1827) published part of his brother's manuscript (Hoogmoed 1980: 10), but in transcribing it made several errors or omitted parts. For instance the description of *B. Kuhlii* was omitted completely, and only a reference to Kuhl (1820: 89) is given, together with the ventral formula 170 + 20. This formula is not to be found in Kuhl (1820), but it can be found in the manuscript of the "Erpétologie de Java" under *Brachyorrhos albus*, the description of which immediately follows that of *B. Kuhlii.* Thus, there has been some mixing of data. On pl. 23 fig. 1 of the "Erpétologie de Java" (Hoogmoed, 1980: 22) *B. Kuhlii* is depicted, showing three dark brown longitudinal lines, clearly demonstrating that it is a specimen of *Atractus trilineatus.* Combining the data of Schlegel (1826, 1827), and F. Boie (1826, 1827) with those provided by H. Boie in the manuscript and those of Kuhl (1820) I come to the conclusion that *Brachyorrhos Kuhli* Schlegel, 1826, is a senior synonym that would replace Wagler's name *trilineatus*, proposed in 1828 (but see below).

Schlegel (1837: 34) gives a perfect description of *B. Kuhlii*, under the heading *Calamaria brachyorrhos*, being of the opinion that this was just the juvenile of *Calamaria brachyorrhos.* Since Schlegel (1837) *B. Kuhlii* was cited in the synonymy of *Brachyorrhos albus* by all subsequent authors (Duméril, Bibron & Duméril, 1854: 512; Boulenger, 1893: 305).

RMNH 48 almost certainly was one of the snakes sent on loan to the Paris museum, as testified by a list dated April 15, 1845, and signed by G. Bibron who

came to Leiden and took the specimen with him. Both no. 40 and no. 72 (sequential order, not register numbers) are listed as *Calamaria brachyorrhos* from Java, each containing one specimen. At that time only two RMNH reg.no's did have these data, viz. no. 48 and no. 50. No. 50 contains *Brachyorrhos albus* (L.), no. 48 now has been identified as *A. trilineatus* and apparently was used in preparing the description of *Rabdosoma lineatum* Duméril, Bibron & Duméril, 1854. This description was based on two specimens of the Paris Museum and one of the Leiden museum. The data for scale counts provided by the authors encompass those for RMNH 48. Combined with the fact that both the old and the new label on the bottle of RMNH 48 state this to be "*Rabdosoma lineatum* D.B.", respectively "*Rhabdosoma lineatum* D. & B." this leads to the conclusion that RMNH 48 is one of the syntypes of *R. lineatum* Duméril, Bibron & Duméril.

Nomenclatorial consequences

RMNH 48 now has been shown to be the holotype of *Coluber brachyurus* Kuhl, 1820. This is a junior primary homonym of *Coluber brachiurus* Shaw, 1802 (a junior synonym of *C. albus* L). and therefore has to be replaced. An available substitute would be *Brachyorrhos Kuhli* Schlegel, 1826, which was based on the description by Kuhl (1820), and thus RMNH 48 also is the holotype of *Brachyorrhos Kuhli* Schlegel, 1826. This name has precedence over *Atractus trilineatus* Wagler, 1828, a name which has been in constant use for the taxon we are dealing with since its introduction. Only in the early period there has been some confusion about this name (*Atractus trilineatus*) and both Schlegel (1837: 34) and Duméril, Bibron & Duméril (1854: 512) placed it in the synonymy of, respectively, *Calamaria brachyorrhos* and *Brachyorrhos albus*, both referring to the same taxon. Schlegel (1837: 34) already clearly saw that *Brachyorrhos Kuhlii* and *Atractus trilineatus* (wrongly cited as *A. lineatus*) were identical when he wrote: "Les jeunes ont le dos très clair, orné de trois raies longitudinales plus foncées et quelquefois interrompues. Cette différence et le nombre moins grand des bandes abdominales dans un individu de cet àge, ont engagé feu Boie á le considérer comme espèce distincte: c'est son Brachyorrhos Kuhlii (4); Wagler (5) en a même fait un genre à part." Further on in his description he includes the ventral scale formula of RMNH 48 (138 + 13) in the range of that of *Calamaria brachyorrhos*. However, Boulenger (1894: 312) interpreted Wagler's description correctly and recognised *A. trilineatus* as a valid species, at the same time relegating *Rabdosoma lineatum* Duméril, Bibron & Duméril, 1854, to its synonymy. The name *Brachyorrhos Kuhli* Schlegel, 1826, is valid and is a senior synonym of *Atractus trilineatus* Wagler, 1828. In order not to upset this long-established name, it is proposed that the International Commission on Zoological Nomendature uses its plenary powers to suppress *Brachyorrhos Kuhli* Schlegel, 1826, for the purposes of the Law of Priority but not for those of the Law of Homonymy.

As pointed out above, RMNH 48 was one of the syntypes of *Rabdosoma lineatum* Duméril, Bibron & Duméril, 1854. In the light of its earlier history and

the synonymizations made here, it seems best to select this specimen as lectotype of that name. The two specimens in the Paris museum (which could have been acquired from the RMNH, although no proof for this exists in our archives) thus become paralectotypes.

The synonymy for *Atractus trilineatus* Wagler, 1828, as given by Boulenger (1894: 312) can be augmented as follows:

Atractus trilineatus Wagler

Coluber brachyurus Kuhl, 1820: 89 (not *C. brachiurus* Shaw, 1802: 470).
Brachyura brachyurus: Kuhl & Van Hasselt, 1822a: 101; Kuhl & Van Hasselt, 1822b: 473; Kuhl, 1824: 81.
Brachyorrhos Kuhli Schlegel, 1826: 236.
Brachyorrhos Kuhlii H. Boie, manuscript of "Erpétologie de Java" (not published); Schlegel, 1827: 291; F. Boie, 1827: 540; Wagler, 1830: 190; Schlegel, 1837: 34.
Atractus trilineatus Wagler, 1828: 742; Gray, 1831: 91; Boulenger, 1894: 312; Boettger, 1898: 81; Werner, 1899: 473; Barbour, 1916: 224; Mole, 1924: 250; Roux, 1926: 292; Werner, 1928: 161; Amaral, 1929: 189; Parker, 1935: 524, 527; Beebe, 1946: 21; Beebe, 1952: 175; Brongersma, 1956: 184; Savage, 1960: 83; Roze, 1961: 107; Roze, 1966: 88; Peters & Orejas-Miranda, 1970: 35; Emsley, 1977: 252, 291; Gorzula, 1978: 25; Hoogmoed, 1979: 275; Hoogmoed, 1980: 4.
Brachyorrhos trilineatus: Gray, 1831: 91.
Calamaria brachyorrhos Schlegel, 1837: 33 (partly).
Atractus lineatus (sic!) Schlegel, 1837: 34.
Rabdosoma lineatum Duméril, Bibron & Duméril, 1854: 105; Jan, 1862: 17; Jan, 1863: 32; Jan & Sordelli, 1865: 7, pl. II fig. 5.
Brachyorrhos albus: Duméril, Bibron & Duméril, 1854: 511 (partly); Günther, 1858: 13 (partly).
Rhabdosoma lineatum: Günther, 1858: 11 (partly); Garman, 1887: 280.
Rabdosoma trivirgatum Jan, 1862: 17; Jan, 1863: 32; Jan & Sordelli, 1865: 7, pl. III fig. 1.
Rabdosoma punctovittatum Jan, 1862: 17; Jan, 1863: 32; Jan & Sordelli, 1865: 7, pl. III fig. 2.
Geophis lineatus: Günther, 1872: 15; Mole & Urich, 1894a: 84; Mole & Urich, 1894b: 506.
Brachyorrhus albus: Boulenger, 1893: 305 (partly).
Rhabdosoma punctovittatum: Savage, 1960: 82.
Rhabdosoma trivirgatum: Savage, 1960: 83.

Another consequence of the present study is that the generic name *Brachyura* Kuhl & van Hasselt, 1822, with the type species *Coluber brachyurus* Kuhl turned out to be a senior synonym of *Atractus* Wagler. As this last genus name has been in constant use since 1894 and as the genus at least contains 76 species, a change of name would be very inconvenient.*)

Considering these data it seems most prudent to ask the "Commission" to use its plenary powers to suppress *Brachyura* Kuhl & Van Hasselt, 1822, for the purposes of the Law of Priority and for those of the Law of Homonymy.

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*) Spix (1823: 11) described a new genus of monkeys under the name *Brachyurus* (preoccupied by *Brachyurus* Fischer, 1813, rodents), which does not interfere with *Brachyura* Kuhl & Van Hasselt. However, Sherborn (1924: 856) lists "*Brachyura* J. v. Spix, Sim. Vesp. Bras. 1824, 11.-M". As I could not consult the 1824 edition of Sim. Vesp. Bras. it is not clear whether *Brachyura* was formally proposed as a replacement name for *Brachyurus* Spix, 1823, or whether it was just an error.

For *Brachyorrhos albus* (L.) from Indonesia, the nomenclatorial changes discussed above have no severe consequences. However, the authorship of the genus *Brachyorrhos* has to be changed. The genus is to be attributed to Schlegel, 1826, and not to F. Boie, 1827. Some synonyms as listed by Boulenger (1893: 305/306) have been relegated to the synonymy of *Atractus trilineatus* Wagler, 1828.

This seems to be a propriate place to state that *Urobrachys* Fitzinger, 1843 (p. 24), with type species "*Brachyorrhos flammigerus*. Boie" is a junior synonym of *Atractus* Wagler, 1828.

-*Rabdosoma badium* of Jan (1865: 7, livr. 11, pl. 1 fig. 1) from Brasil clearly represents *Atractus flammigerus* (F. Boie). For further details regarding synonymies of Surinam species of *Atractus*, see Hoogmoed (1980).

Summary

Examination of RMNH 48 showed it to be a specimen of *Atractus trilineatus* Wagler, 1828. This specimen is the holotype of *Coluber brachyurus* Kuhl, 1820, and *Brachyorrhos Kuhli* Schlegel, 1826, and the lectotype of *Rabdosoma lineatum* Duméril, Bibron & Duméril, 1854. The unraveling of the history of this specimen had several nomenclatorial consequences. The International Commission on Zoological Nomenclature will be asked to use its plenary powers to suppress *Brachyorrhos Kuhli* Schlegel, 1826, for the purposes of the Law of Priority but not for those of the Law of Homonymy, and *Brachyura* Kuhl & Van Hasselt, 1822, for those of both the Law of Priority and that of Homonymy.

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