CONVENTION ON INTERNATIONAL TRADE IN ENDANGERED SPECIES
OF WILD FAUNA AND FLORA

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Gigiri (Kenya), 10-20 April 2000

# REMARKS CONCERNING THE PUBLICATION "SNAKE SPECIES OF THE WORLD. A TAXONOMIC AND GEOGRAPHIC REFERENCE. VOLUME 1", BY R.W.MCDIARMID, J. A. CAMPBELL AND T'SHAKA TOURÉ, 1999

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## History

The present checklist has been in the making for a number of years and was finally published on 2 July 1999 by The Herpetologists' League, although it took another six months before copies of the book reached the hands of the Chairman of CITES Nomenclature Committee, the Chairman of the Animals Committee and the CITES Secretariat.

On the basis of a manuscript, shown to members of Nomenclature Committee by its then Chairman and which only could be studied cursorily by members of the Committee present at the meeting, the tenth meeting of the Conference of the Parties decided, in spite of negative comments from the floor regarding adopting an unpublished checklist, to adopt this checklist as the future standard reference for CITES. The present publication in several places mentions that it was "Adopted as the Standard Reference to Snake Nomenclature at the 10th Meeting of the Conference of the Parties to Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), 9-20 June 1997, Harare, Zimbabwe". How true this may be, the final manuscript of the publication was not submitted to the Nomenclature Committee for final judgement and approval. This now presents some problems that are listed below.

## Scope

The present publication covers a total of 682 species, including the families Boidae, Bolyeriidae, Loxocemidae, Pythonidae, Tropidophiidae (the preceding families formerly were all covered by the name Boidae) and Viperidae, which contain the majority of snakes listed under CITES. Only 13 species in the CITES Appendices are not covered by the present checklist. The checklist provides a thorough account of all species treated, listing synonymies and distribution areas as well as explanatory comments. As such it is a useful tool for CITES and for the taxonomically interested herpetological community in its entirety. The authors can be complimented for their efforts and we hope to see Volumes 2 and 3 appear in the not too far future. It would greatly help research efforts on snakes in general, thus enhancing the effectiveness of conservation efforts.

## Problems (paragraphs 1 and 2 below) and notable changes

The checklist is a compilation of literature data up till 1998. At the end of the book (pp 463-465) the authors list all the species treated in this Volume of the Checklist that are included in the CITES appendices and mark 26 taxa that would be subject to a name change because of taxonomic changes effected in this book. The authors faithfully followed the literature and did not make any interpretations themselves. This does not necessarily mean that all changes have been or will be accepted by the herpetological community. A number of changes introduced here are highly disputable and not in the interest of nomenclatural stability or nature conservation. These are discussed in the paragraphs 1 and 2 below. I therefore propose the Nomenclature Committee not to adopt these and to maintain the commonly known scientific names as currently published in the appendices of the Convention. I further suggest that the Nomenclature Committee proposes that the changes discussed in the paragraphs 3 to 11 below are adopted by the Conference of the Parties.

1. The genera *Boa, Acrantophis* and *Sanzinia*

In the present Checklist the authors follow A.G. Kluge, 1991 (Boine snake phylogeny and research cycles – Misc. Publ. Mus. Zool. Univ. Michigan 178: i-iv, 1-58), who on the basis of his phylogenetic research synonymised the Madagascan genera *Acrantophis* and *Sanzinia* with the South American genus *Boa*, with a number of taxonomic consequences. Kluge's research showed that these three genera, containing four species, form a monophyletic group. The monophyly of the group is not disputed here, but the solution Kluge choose is. He proposed two solutions to show the monophyly, forgetting the third option, which was maintaining the status quo, and finally opted for putting all four taxa (species) involved into the genus *Boa*, on the following basis only: "I prefer the latter [synonymisation of *Acrantophis* and *Sanzinia* with *Boa*] because it emphasizes the unusual biogeographic hypothesis [the Madagascar-Reunion radiation of Boid snakes diverged from a New World ancestor] discussed below." By doing this, Kluge seems to neglect all biogeographic logic and common knowledge about the relationships between a number of Madagascan reptiles (Boid snakes, Oplurid lizards and the turtle *Erymnochelys madagascariens*) and South American relatives, which is widely recognized among herpetologists and biogeographers alike. Synonymising the Madagascan Boid snakes with the South American genus *Boa* rather obfuscates the real situation, instead of clarifying it. By placing three genera, separated by an ocean and a continent, in the same genus just to make a point about relationships, which undoubtedly are there, but which in my opinion do not merit the fusion of three genera into one, Kluge does not help our understanding of zoogeographical relationships, and his action certainly does not promote nomenclatural stability as advocated by the International Code of Zoological Nomenclature. Additionally, it can be noted that since Kluge's publication not a single (herpetological) author (as checked in the Zoological Record) has accepted Kluge's new proposed nomenclature.

It is therefore proposed to maintain the present situation and continue using the following specific names for madagascan Boid snakes:

*Acrantophis dumerilii* Jan, 1860
*Acrantophis madagascariensis* (Duméril & Bibron, 1844)
*Sanzinia madagascariensis* (Duméril & Bibron, 1844)

2. The genera *Charina*, *Calabaria* and *Lichanura*

In the present Checklist the authors follow A.G. Kluge, 1993 (*Calabaria* and the phylogeny of erycine snakes. – Zool. Journal Linn. Soc. 107: 293-351) who on the basis of his phylogenetic research synonymised the West African genus *Calabaria* and the Californian-Arizonan genus *Lichanura* with the western North American genus *Charina*. Again, Kluge reaches the conclusion that these three monotypic genera form a monophyletic group. How he plans to deal with this nomenclaturally is described in the next citation (Kluge, 1993: 339): " There are three ways to maintain a monophyletic, binominal taxonomy for the ((bottae, trivirgata) reinhardtii) part of the erycine cladistic hypothesis (Fig. 19): (1) each species is given its own genus group name, e.g. *Charina*, *Lichanura* and *Calabaria*, respectively; (2) recognize *Calabaria* and synonymize *Lichanura* with *Charina*; or (3) use *Charina* for all three species. The first possibility [the present situation, M.S.Hoogmoed] is the least efficient taxonomically because a fourth name is needed to indicate the unity of the three species among the erycines. The second proposition also requires a suprageneric epithet for the same reason. The last of the three alternatives, a single name, *Charina*, is the most efficient in terms of number of genus group names required; however, like the first possibility, it must be accompanied by Wiley's (1981) sequencing convention in order to specify the hierarchy of species relationships. Thus, adopting that convention, I employ *Charina* for *bottae, trivirgata* and *reinhardtii* for reasons of taxonomic efficiency, and because it emphasizes evidence for a historical connection between the New and Old Worlds (see below)." Again, Kluge negates all zoogeographical logic by placing rather relict groups, separated by a continent and an ocean in the same genus, just to make a point about relationships, which probably are there, but which do not merit the fusion of three genera into one. Kluge's statement that his proposed new arrangement would serve taxonomic efficiency escapes me, as I cannot see what would be efficient about it and according to me it is a rather dubious action which is more a reflection of his philosophy than of taxonomy and phylogenetic relationships. It certainly does not promote nomenclatural stability as advocated by the International Code of Zoological Nomenclature. Additionally, it should, again, be noted that since Kluge's publication not a

single (herpetological) author (as checked in the Zoological Record) has accepted Kluge's new proposed nomenclature.

It is therefore proposed to maintain the present situation and refer to the taxa involved as:

*Calabaria reinhardtii* (Schlegel, 1848)
*Charina bottae* (Blainville, 1935)
*Lichanura trivirgata* (Cope, 1861)

3. Note that *Eunectes barbouri* Dunn & Conant, 1936 has been synonymised with *Eunectes murinus* (L., 1758). This decision is endorsed by the herpetologtical community and can be endorsed here.

4. Note that the taxon *Epicrates cenchria maurus* Gray, 1849 in this checklist is still treated as a subspecies of *Epicrates cenchria* (L., 1758), but in the meantime, on good grounds, has been considered a different species, *Epicrates maurus* Gray, 1849 by several authors (J.P.Chippeaux, 1986: Les serpents de la Guyane française – Faune Tropicale XXVII: 1-165, ORSTOM; F.Starace, 1998, Guide des serpents et amphisbènes de Guyane française: 1-449, Ibis rouge). It is proposed to endorse this last opinion and that *Epicrates maurus* Gray, 1849 is added to the list of species within the genus *Epicrates*. This taxon has a distribution in savannah areas from Costa Rica and Panama, through (Caribbean) coastal Colombia and Venezuela to the Guianas.

5. From the former species *Corallus hortulanus*, three species were resurrected by Henderson in 1997: *Corallus cookii* Gray 1842, *C. grenadensis* (Barbour, 1914) and *C. ruschenbergerii* (Cope, 1876). Apart from these three, *Corallus hortulanus* (L., 1758) remains as a good species.

6. *Eryx whitakeri* Das, 1991 was described as a new species after having been regarded as part of *Eryx conicus* , now *Gongylophis conicus* (Schneider, 1801).

7. A number of range restrictions have been noted in the comment section of several species, because former ranges were (partly) based on wrong citations of literature. It is proposed that the Nomenclature Committee endorses the new ranges as given in the present checklist.

8. It is proposed that all other proposed changes at the generic and specific level as effected in the checklist and summarised on p.463 -465 are endorsed by the Nomenclature Committee.

9. Note that *Vipera ursinii* and *Vipera wagneri* in the summary on p. 465 of the checklist both are incorrectly listed as Appendix III species: *V. ursinii* is listed in Appendix I and *V. wagneri* in Appendix II. Also note that the date of listing as mentioned in the summary for *V. wagneri* (described in 1988) is wrong, due to a typo (82 instead of 92).

10. For *Daboia russelii* the date of listing is erroneously mentioned as 12/02/84, whereas it correctly should be 13/01/84.

11. Note that the family Boidae as understood in the present Appendices and effective from 04/02/1977 encompasses the families Boidae, Bolyeriidae, Loxocemidae, Pythonidae and Tropidophiidae as delimited in the checklist. Consequently, the current family listing of Boidae in Appendix II should be amended to include the proposed relevant (see above) families in the Checklist.

Leiden, March 14 2000

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