

A Field Guide to the Snakes of Borneo, by Robert B. Stuebing and Robert F. Inger. 1999. Natural History Publications (Borneo) Sdn. Bhd., A913, 9th Floor, Wisma Merdeka, P.O. Box 13908, 88846 Kota Kinabalu, Sabah, Malaysia. (e-mail: chewlun@tm.net.my). viii + 254 pp. RM 150 (approx. US\$ 41.00). Hardcover: RM 120 (approx. US\$ 33.00), Paperback. ISBN 983-812-031-6 (Paperback); ISBN 983-812-038-3 (Hardcover).

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This book is the companion volume to *The Field Guide to the Frogs of Borneo*, written by the same team of authors (Stuebing and Inger). Given the scarcity of literature on the herpetology of Southeast Asia in general, and on snakes in particular (there had been no update on the snake fauna of the island of Borneo since De Rooij, 1917), the present work will be a great help, not only to biologists (many of them local students, without access to literature, such as the work of De Rooij, which, after all, does not include color photos), but also tourists, conservationists, and local laypeople. Technically, this is a well-produced work, in both paperback and hardcover (with dust jacket) editions, in the usual high standards of printing that characterize publications of Natural History (Borneo) Publications Sdn. Bhd. (which, apart from the frog and snake books already mentioned, have also published an introductory text on the natural history of Sabah's herpetofauna, and a reprint of the 1966 monograph to the Bornean amphibian fauna by Inger).

The front cover photograph of the snake book shows a *Trimeresurus popeorum*, the back cover illustrates a *Bungarus fasciatus*. Separate chapters include an introduction, a checklist, general aspects of snake biology, including adaptations and ecology, conservation, the relationships between snakes and humans on Borneo (which includes a small section on snake bite treatment), a field key to the species (using, whenever possible, col-

oration and other external features), and the species accounts, each typically 1–2 pages long, rounding out with an appendix of vernacular names of snakes and a short list of references. Many species have been illustrated for the first time. The photographs were provided by a large number of local and foreign biologists; their quality ranges from average (understandable, given that it is notoriously difficult to take a good photograph of uncooperative, fast-moving, dark-colored snakes) to startling (e.g., *Ahaetulla prasina* swallowing a lizard, p. 117). Bornean rarities illustrated range from the bizarre *Xenodermus javanicus* (p. 82) to the beautiful *Amphiesma flavifrons* (p. 169). There are a couple of misidentifications: the photograph of *Enhydryis plumbea* on p. 93 is actually that of a *Xenopeltis unicolor* and those identified as *Zaocys fuscus* (p. 167) are actually *Z. carinatus*.

Other errors of omission and inconsistencies are enumerated here by topic, with the hope that these are removed if any subsequent editions are produced.

Partial or incomplete information.—For some species, detailed extralimital distributional information is provided; for others, only a brief mention that it is found in Southeast Asia or elsewhere. For example, the western part of the distribution of *Dendrelaphis pictus* includes Nepal, India, Bangladesh, and Myanmar, besides other countries mentioned. Other species that have ranges significantly larger than indicated include *Laticauda colubrina* and *Homalopsis buccata*. Patronyms are detailed in some instances, short in others. *Oligodon annulifer*, said to be known only from the unique holotype from Sabah, was re-collected in Batu Apoi, Brunei Darussalam (Das 1995). Also known from Brunei are *Ophisthioptis typica* and *Hydrablades periops*, both of which are represented by museum specimens. The only other Sunda record of *Kolpophis annandalei* was thought to be from Sumatra, rather than Java (Das 1993). Given the confusion between *Trimeresurus borneensis* and *T. puniceus*, a sentence could be added here on the similarities between the two, and that the old Bornean reports of *T. puniceus* in fact refer to *T. borneensis*. There is published information on the diet of *Cylindrophis ruffus* in the wild, contrary to Stuebing and Inger, that indicates that it is a specialized snake-eater (see for instance, Shelford 1916:78; Smith 1943:97; Greene 1997:161).

Problems with nomenclature and taxonomy.—Some taxonomic and distributional details of individual species are not made clear. Perhaps the most surprising of these is the allocation of *Xenelaphis hexagonotus* in the Xenodermatinae, rather than Colubrinae (p. 80). In the section on *Lycodon aulicus*, the species referred to and illustrated is *L. capucinus*, which earlier workers (e.g., Smith 1943) had considered a subspecies of *L. aulicus*. Taylor and Elbel (1958) and subsequent workers have treated it as a distinct species, and the Borneo record helps fill in the gap in its distribution. *Ophisaurus buettikoferi* is rendered as *Ophisaurus büttikoferi* (p. 3). Other inconsistencies include the allocation of *wagleri* (correctly) to *Tropidolaemus* (p. 14, 233, 235) and (incorrectly) to *Trimeresurus* (p. 28). A couple of species allocated to *Pareas* in this work (*laevis* and *malaccanus*) have been allocated to *Internatus* by Rao and Yang (1992), a usage followed by David and Vogel (1996). *Gongylosoma* Fitzinger, 1843 was revived from synonymy by Leviton (1964) for several Asian species previously referred to *Liopeltis*, including (in the present work) *G. baliodeirum* and *G. longicauda*.

Problems with type localities.—Page 91 gives the type locality of *Cerberus rynchops* as “?Ganjam?” Schneider’s 1799 description of the species, based on watercolors in Russell (1796) was indeed from Ganjam (in Orissa State, southeastern India). The type locality of *Ophiophagus hannah* (Cantor 1836), given as unknown (p. 199), was, according to the original description, from “Sunderbuns” (= Sunderbans, at present a part of West Bengal State of eastern India and Bangladesh) and “jungle not far from Calcutta” (at present, Kolkata, West Bengal State, eastern India). The type locality of *Bungarus fasciatus*, which the authors mention as being Bengal, is, in fact, given in Russell (1796) as “Mansoor Cottah, Bengal” (at present a seaport ca. 24 km south of Ganjam, Orissa State, Southeast India), and not in the modern Indian state of Bengal.

Derivation of scientific names.—Derivations of some snake names are given as unknown or have erroneous etymology. For *Ramphotyphlops braminus*, the species name is the Latinized form of the word Brahmin (a caste among Hindus), perhaps in allusion to its brown coloration (the authors guess that the word is derived from Hindi). The derivation of the name *Chrysopelea paradisi* H. Boie in: F. Boie, 1827, can be either from the Latin (‘paradisus’) or the Greek (‘paradeisos’), meaning an enclosed park; it is probable therefore that the holotype was found in a park (and has nothing to do with paradise, as given in the work); the derivation of the genus *Bungarus* (as in *Bungarus fasciatus*) is from the Telugu vernacular, in which *Bungarum pambah/pamu* means ‘golden snake,’ and is not “New Latin” (as stated on p. 189). The species name of *Ophiophagus hannah* is derived from the name of tree-dwelling nymphs of Greek mythology, and refers to the arboreal habits of the snakes. In fact, Cantor (1838) provided a description of the habits of the species in the Sunderbans.

Omission.—Two snake species have not been listed in the checklist for Borneo: Vogel (1995) recorded *Dendrelaphis striatus* (Cohn 1905) from Kutei, Kalimantan, Borneo, and Vogel and Köhler (1996) recorded *Elapoidis fusca* Boie in Boie, 1827, from “northern Borneo.” A questionable record for Borneo—*Ptyas korros*, is included, but *Oligodon semicinctus* (Peters 1862; see Wallach and Bauer 1996) is not. In the literature cited section, important works that have been missed include De Rooij (1917) and David and Vogel (1996). Details of pagination are given for some, not all, works. Incidentally, the book by Manthey and Grossmann (1997) was published in Münster, not Berlin (p. 241).

Other inconsistencies include the repetition of a paragraph in the account dealing with *Pelamis platurus* (pp. 219–220), and the use of British English in some cases and American English in others.

Despite these criticisms, this will be an invaluable reference for those working on the Southeast Asian snake fauna. The photographs will probably be more informative than the short textual descriptions, and a wise selection of photographs from 17 individual photographers contribute towards making this an attractive volume. Arguably, books like this do more for creating an interest in herpetology in the tropics than countless research papers.

LITERATURE CITED

- CANTOR, T. E. 1838. A notice of the *Hamadryas*, a genus of hooded serpents with poisonous fangs and maxillary teeth. Proc. Zool. Soc. London 1838:72–75.

- DAS, I. 1993. Annandale's seasnake, *Kolpophis annandalei* (Laidlaw, 1901): a new record for Borneo. Raffles Bull. Zool. 41:359-361.
- _____. 1995. Amphibians and reptiles recorded at Batu Apoi, a lowland dipterocarp forest in Brunei Darussalam. Raffles Bull. Zool. 43:157-180.
- DAVID, P., AND G. VOGEL. 1996. The Snakes of Sumatra. An Annotated Checklist and Key with Natural History Notes. Edition Chimaira, Frankfurt am Main. 260 pp.
- DE ROOIJ, N. 1917. The Reptiles of the Indo-Australian Archipelago. II. Ophidia. E. J. Brill, Leiden. xiv + 334 pp.
- GREENE, H. W. 1997. Snakes. The Evolution of Mystery in Nature. University of California Press, Berkeley and Los Angeles. xiv + 351 pp.
- LEVITON, A. E. "1963" 1964. Contribution to a review of Philippine snakes. II. The genera *Liopeltis* and *Sibynophis*. Philippine J. Sci. 92:367-381.
- MANTHEY, U., AND W. GROSSMANN. 1997. Amphibien und Reptilien Südostasiens. Natur und Tier. Münster. 512 pp.
- RAO, D.-Q., AND D.-T. YANG. 1992. Phylogenetic systematics of Pareinae (Serpentes) of southeastern Asia and adjacent islands with relationship between it and the geology changes. Acta Zool. Sinica 38(2):139-150. [In Chinese, with English abstract.]
- RUSSELL, P. 1796. An Account of Indian Serpents Collected on the Coast of Coromandel; Containing Descriptions and Drawings of each Species; Together with Experiments and Remarks on their Several Poisons. George Nicol, London. viii + 90 pp + Pl. I-XLVI.
- SHELFORD, W. 1916. A Naturalist in Borneo. T. Fischer Unwin Ltd., London. xxvii + 331 pp.
- SMITH, M. A. 1943. The Fauna of British India, Ceylon and Burma, Including the Whole of the Indo-Chinese Region. Vol. III. Serpentes. Taylor and Francis, London. xii + 583 pp. + 1 map.
- TAYLOR, E. H., AND R. E. ELBEL. 1958. Contribution to the herpetology of Thailand. Univ. Kansas Sci. Bull. 38:1033-1189.
- VOGEL, G. 1995. *Dendrelaphis striatus* (Cohn) neu für die Fauna Borneos (Serpentes, Colubridae). Mitt. Zool. Mus. Berlin 71:147-149.
- _____, AND G. KÖHLER. 1996. Notes on the occurrence of *Elapoidis fusca* Boie 1827 on Borneo (Reptilia: Serpentes: Colubridae). Senckenbergiana Biol. 76:61-63.
- WALLACH, V., AND A. M. BAUER. 1996. On the identity and status of *Simotes semicinctus* Peters, 1862 (Serpentes: Colubridae). Hamadryad 21:13-18.