

TRUE VIPERS Natural History and Toxinology of Old World Vipers, by David Mallow, David Ludwig and Göran Nilson. 2003. Krieger Publishing Co., P.O. Box 9542, Melbourne, FL 32902-9542. 359 pp. Hardcover. US \$ 79.50. ISBN 1-89464-877-2.

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Those who live in the Western Hemisphere tend to think of vipers as pitvipers, as we are surrounded by them. Those of us interested in venomous snakes dwell on Crotalines. However, for the family Viperidae there are three other subfamilies of vipers which live with Crotalines in the Eastern Hemisphere, and these are the subfamilies Viperinae, Causinae, and a single charismatic snake in Azemiopinae. The Viperidae have been traditionally referred to as 'true vipers', and are composed of 14 genera and 85 species.

David Mallow, David Ludwig and Göran Nilson have written a valuable and interesting book, *True Vipers*, which summarizes the taxonomy, natural history and toxinology of these venomous snakes. The Introduction summarizes why true vipers are different from other venomous snakes, especially pitvipers. The rest of this chapter explains topics related to toxinology, i.e., venom apparatus, venom glands and ducts, venom composition and function, venom effects, treatment and antivenins, diagnosis, antivenin, antivenin specificity and antivenin administration.

Following the Introduction, each of the 85 species is discussed providing the information known under specific headings: scientific name, describer and year, common name in the text, recognition, taxonomy and distribution, habitat, food and feeding, behavior, reproduction and development, bite and venom, and remarks. The latter, bite and venom include the topics: epidemiology, toxicity, venom content, symptoms and physiological effects, hematological effects, case histories, and treatment and morbidity. Species are also grouped and discussed by genus and subgenus.

Some taxa are well known and famous and these of course get the most discussion since more is known about them than the many others we've never heard of and of whom much less has been reported in the literature. Examples of the former are: Fea's viper (unlike the book, I will emphasize the common names), rhombic night adder, puff adder, horned puff adder, Gaboon viper, rhinoceros viper, Russell's viper, saw-scaled viper, and the European adder. Less well known species are also discussed in detail, e.g., asp viper, desert mountain adder, green bush viper, Palestine viper, and the Sahara sand viper. I've named 14 and there are 71 to go. Of course, there are vipers with limited range or are rarely seen and

many of the topics of discussion for these are blank since this information is yet to be uncovered.

The text is documented by an extensive bibliography of 49 pages. There are 52 photographs (3 x 4.5 inches) of species with two photos of 13 species. Finally, there is an eight page Glossary.

The primary problem with this volume is the lack of indices. One can only find individual taxa using the 'Contents' at the book's beginning which uses current scientific names only. If common name is used to find a snake account, one must go species by species to find that name, and they are not easily found because these names are in the text and not the heading for each taxa. What if one knew only the locale or country a snake originated? Again there are no maps of distribution, so one would have a long search using the text. When known, the toxinology (venom characteristics and case histories) from the literature is discussed, and could be used by health care professionals. However, finding the species and information will not be easy if the species using most recent classification is not known. Perhaps that is why health care professions are not named among the groups that might find this book useful.

The illustrations, including cover photo of *Atheris chlorechis*, are in general acceptable, but below the current level of digital reproduction. The over all resolution is low, and I am at a loss to know why. In addition, two photos by John Tashjian are dominated by one color, e.g., Plate 7.1 by red, and Plates 5.5, 5.6 and 14.26 by green.

Although extensive, the Bibliography supporting the text, in my view, has some problems. The U.S. Navy's *Poisonous Snakes of the World* was published in 1967 with no further revisions. The reprint issued in 1991, is cited as 1991 with no mention of its date of publication which indicates this is a recent book with recent information. Such is not the case. Major chapters by David A. Warrell (1995a; 1995b) on snakebite in Africa and Asia are not cited, and in addition, many of the important articles cited by Warrell are not included in the bibliography of *True Vipers*. These are major omissions. The book by Gopalakrishnakone and Chou (1990) is also omitted.

Anyone interested in any aspect of Old World true vipers will definitely find this a useful text. The general reader interested in snakes and herpetology will need to check it out before purchasing, an easy thing to do.

Literature cited

- Warrell, D. A. 1995a. Clinical toxicology of snakebite in Africa and the Middle East/Arabian Peninsula. In. *Handbook of Clinical Toxicology of Animal Venoms and Poisons*. Eds. J. Meier and J. White, CRC Press, Boca Raton, Florida. pp. 433-492.
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- Gopalakrishnakone, P., and L. M. Chou. 1990. *Snakes of Medical Importance (Asia-Pacific Region)*. Singapore University Press, Singapore.