BOOK REVIEWS

The Snakes of Trinidad and Tobago Hans E. A. Boos Texas A&M University Press, College Station, 2001. pp xvi + 270. TT\$300.

Most authors begin their books with a preface (which few people read) in which they set out their aims in writing the book. Boos has dispensed with this. After two pages of acknowledgements and a page of abbreviations he dives straight away into a description of our two islands, the environmental background to the snakes, and the exciting history of discovery of the different species. It is only at p 219, near the end of the book, that he says he has written the book to "counter the ignorance which treats all snakes as venomous and to provide information for people already interested in snakes." Why then did I have the curious feeling on reaching the end that I had just finished a book on folklore and not of science? The answer is there in his own words: "I have tried to relate every story I have encountered during research for this book ... " and the truth is that there are a lot of stories. Does this mean that there is no science? Not at all. The science is there too, but science has only just begun to reveal the natural history of our snakes and fantasy has had a long head start.

I tested this idea by rereading the sections on natural history of three species I myself know fairly well. Here is what I found: For Leptodeira annulata, the false mapepire, there are 29 lines covering habitat, food, eggs (the number in a clutch and the observation that they are frequently laid in the nests of leaf-cutting ants), size of the eggs, and remarks on the dorsal pattern and its resemblance to the pattern on the mapepire zanana. For Atractus trilineatus, the three-lined ground snake, there are 17 lines on habitat, resemblance to earthworms, food and feeding habits, eggs (up to five in a clutch laid in August) and enemies. For Pseudoboa neuwiedii, the ratonel, there are 38 lines (one page) covering habitat, food and feeding habits, remarks on the toxicity of the venom, eggs, clutch size and the finding of eggs in the nests of leaf-cutting ants. Mole is credited with the observation that "eggs were laid from September to February and hatched in January and May." In fact, Mole was more specific than that. He gave dates for the laying and hatching of two clutches of eggs, from which it is easily calculated that incubation lasted 85 days for the clutch laid on 14 February and 101 days for the clutch laid on 24 September. Now this is just the sort of information that is usually lacking, and it is a pity that in the one species where it is available it was somehow omitted.

If comparatively little is known of the common snakes it follows that much less is known of the rarer ones. Thus, for *Erythrolamprus ocellatus* (a false coral) Boos states "little is known of this snake except that it is possibly diurnal and eats other snakes..." This is not quite all, for he adds that each of two captive specimens ate a lizard, one a *Hemidactylus mabouia* and the other a *Gymnophthaimus underwoodi*. I do not need to labour the point any more: the science, what is known of it, is there, but the extent of our knowledge is well below that of our bird fauna. We need another Mole, another Urich, another Boos.

There are no keys in this book but from the descriptions and colour plates it should be possible for anyone to identify any reasonably complete specimen that he may encounter. The pictures are clear and display the snakes well, but would have served their purpose better by being larger. Unfortunately, this would have increased the cost of the book which is already high enough to deter some potential purchasers. However, under a large, low-power lens the pictures sparkle and reveal much detail.

The section on snakebite and its treatment should be required reading for anyone who spends any considerable amount of time in our forests or agricultural estates where snakes may be common. Boos discusses all the variables that come into play, and all the treatments from magic to medicinal plants. He insists that medical treatment in a hospital or clinic is the only proper response to severe envenomation. He warns against the use of tourniquets and extreme measures taken in panic when the offending snake may not even be venomous. As he puts it with reference to mapepires, pit-vipers and crotalids, "When you are bitten by one of these you know that you have been bitten." The pain and swelling are immediate.

These recommendations echo those of David L.

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Hardy (Biotropica 26:198-213, 1994) when dealing with the bites of *Bothrops asper*. Hardy also recommends intramuscular injection of antivenin if four conditions are fulfilled, "the bite is inflicted by a *B. asper* over 1m in length; there are signs and symptoms of envenomation (pain, swelling, vomiting, hypotension); evacuation time is more than 4 hr; and there is no known allergy to horse dander or serum."

Neither Boos nor Hardy seems to be aware of the reports indicating that vitamin C is a good treatment (Irwin Stone, The Healing Factor; vitamin C against Disease. Perigee Books, New York, 1972). A Dr. J. H. Perdomo in Colombia in 1947 claimed a "very favorable response" in three victims to 2g of ascorbic acid injected intravenously every three hours. Also, Dr. F. K. Klenner "not only successfully treated snake bite in man megascorbically, but also in dogs..." These statements deserve to be checked. If verified, ascorbic acid taken by mouth could become the easiest first-aid treatment for snake bite.

Two short appendices, a glossary of technical terms, 28 pages of references and an index of names complete the book. There are a few typographical errors, all but one of which should not trouble the reader. The exception is a reference-(Hall *et al.* 2000) that occurs at the bottom of page 33. Boos has told me that this should read (Lall *et al.* 2000) instead.

All in all, this is a worthy addition to the growing list of books on the flora and fauna of our two islands. I hope that the author succeeds in his stated aims of stimulating those already interested in snakes and drawing into this fold those on the fringes who still respond to them with fear or aversion. He has promised us two more books, one on lizards and one on amphibians. We look forward to these.

Victor C. Quesnel

Reptiles and Amphibians of the Eastern Caribbean.

Anita Malhotra and Roger Thorpe Macmillan Education, London and Oxford. 1999. This booklet (134 pages) is a welcome addition to the Macmillan Caribbean Pocket Natural History Series of books covering different aspects of the natural history of the Eastern Caribbean.

From the island of Sombrero in the north to Grenada in the south, the Amphibians consisting of the frogs and toads, and the Reptiles, consisting of the marine turtles, terrapins, tortoises, crocodilians, lizards and snakes, are described. There are many beautiful colour photos to illustrate typical members of each group, with some habitat photos thrown in to enliven the text for those who may be a little off-put by the pictures of animals that are not usually at the top of the like-lists of readers.

The book is divided into eleven chapters, which include a good bibliography and a comprehensive index to both the common and scientific names. What is even more useful to the user is an island checklist where one can tell, at a glance, which species are found on every individual island.

The island of Dominica is singled out in a special chapter to illustrate a natural reptile and amphibian community, with less space being given to the other islands in the area covered.

The photos, mostly of the *Anolis* lizards, which are the most conspicuous reptiles on most islands, are so well composed and colourful that it leaves the reader wishing that every species of reptile on this fascinating chain of islands could have been illustrated in a similar manner.

In these days with the degradation of so much habitat, worldwide, the chapter on conservation is a welcome plea for islands that have lost so much of their fauna already.

A glossary leads the uninitiated through the more technical terms of study of the herpetofauna, and the book as a whole has a nice heft to it, as it can slip easily into a pocket or back pack.

To many a visitor and resident of the islands, the shrill cries in the night of the teeming tree frogs will not seem so mysterious, as we can accurately identify the hidden little singers with a quick reference to this wonderful little book.

Hans E. A. Boos

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