BOOK REVIEWS

West Indian Reptiles and Amphibians

Natural History of West Indian Reptiles and Amphibians. 2009. Robert W. Henderson and Robert Powell. University Press of Florida, Gainesville. xxiv + 495 pp. Hardback – ISBN 978-0-8130-3395-5. $85.00.

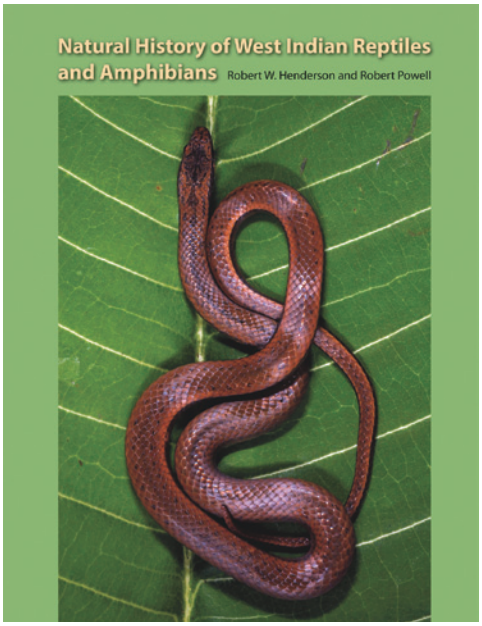
"Our final tally of 737 currently recognized species of frogs and non-avian reptiles (excluding marine turtles) in the West Indies might be outdated by the time this book is published …. Hedges (2006) … predicted that the total number of species would most likely exceed 800 …."

This is a monumental volume. The West Indies have been the focus of intense herpetological research for over two centuries. Most of that research effort has gone into taxonomic investigations, with only about 5% of the species receiving direct natural history research by 1990 when the predecessor of this book, Schwartz and Henderson (1991), was finished. Now Henderson and Powell reckon that nearly 43% of species have had at least some dedicated natural history research. So, however monumental, this tome is merely a milestone along our way: "Because we still know so little about so many of the frogs and reptiles of the islands, the West Indies collectively represent a natural laboratory that will continue to provide an unending stream of questions for many decades to come."

Indeed, for any aspiring herpetologist, this book can be the perfect source for ambition and inspiration. Just compare, for example, the text for a rather well known species like *Anolis sagrei*, with seven full double-column pages, and the gecko *Sphaerodactylus lazelli*, albeit described in 1968, with just 36 mm of text in one column. To put the picture in another perspective, *Anolis sagrei* gets about 1.4% of the book's entire text; a volume (or volumes) including that much information for 800 species would far exceed a thousand pages. Literally, we know almost nothing about the natural history of most species — and they are spread over at least 600 islands! This detailed chronicle of what we do know enables one to formulate terrific research protocols for hundreds of species "figuratively crying out for someone to seek answers."

Those answers are indeed being sought. The authors graph the increase in relevant published works per decade since 1740 when only one paper was written on West Indian amphibians and reptiles. In the 1960s, that had increased to near 200; in this first decade of century 21, the number is already almost 700 — and we are not even done!

The book is divided into three major sections: A 22-page introduction, an ending 89 pages of literature cited, and 382 pages of species accounts in the middle. The introduction is extensive and detailed, a must-read for anyone even passingly interested in the subject. Therein we are informed that the species accounts will, to the extent possible, include data on distribution, habitat, abundance, activity, behavior, biomass, competition, diet and foraging, dispersal, growth, home ranges, movements, parasites, population size and density, reproduction, sex ratio, size, caudal autotomy, thermal biology, and miscellaneous topics where relevant like ecomorphology, desiccation, and hurricane effects. Generally, pictures, identification characters, and maps are deferred to an upcoming field guide by S. Blair Hedges.



The introduction highlights conservation. Many West Indian species of frogs and reptiles are endangered or threatened, and too many are apparently extinct. This unfortunate and alarming situation is entirely — directly or indirectly — the result of human activity and human populations. Those escalating human numbers are creating "... rapidly deteriorating circumstances for some species." Almost three pages (pp. 8–11) are dedicated to human "Introduced Invasive Predators and Competitors." Although ants are mentioned herein, the introduced Fire Ant (*Solenopsis invicta*) is not explicitly discussed — now there is a topic for some avid researcher! The deleterious effects of human population are mentioned at least five times with respect to agriculture, housing, tourism, and other ramifications, prior to a section titled "Overpopulation" (pp. 16–17). Therein are given actual census and growth figures for several pivotal islands or countries. This is followed by a section on "Future Emphases" (p. 20) initiated by "overdevelopment [and] burgeoning human population ...." Henderson and Powell are to be especially commended for this: The entire ecological and conservation community must cease ignoring the "mother of all problems" — human overpopulation.

I have searched the species accounts long and hard for errors. The only one I have found is a weak, oblique inference (p. 77) of the presence of the frog *Eleutherodactylus schwartzi* on Guana Island (British Virgin Islands) where that species does not occur, although investigations of its congener *E. antillensis* on the island have been extensive, as noted in the book.

My own herpetological efforts in the West Indies span more than half a century; I take this opportunity to express my gratitude for this rich and wonderful book: It is most rewarding.

James Lazell
The Conservation Agency
Jamestown, Rhode Island