

## Birds of Belize

By H. Lee Jones. 2004. University of Texas Press, P.O. Box 7819, Austin, Texas 78713-7819 USA. x + 444 pages. U.S.\$60.00 Cloth, U.S.\$34.95 paperback.

This first edition covers the 574 species of birds recorded in the old British colony of Honduras, and now called Belize. Virtually all the birds are shown in colour plates, with accompanying text and 234 range maps. The book has a brief introduction to the biogeography and climate of Belize and a how-to-use chapter. This latter is very important because it explains how the author has chosen to organize the book and select the "common" names, as well as the names in Maya, Spanish and the aboriginal language. The range maps, at the back of the book, mostly cover the resident species and are large enough to be a useful guide.

The text is precise and clear and contains much useful information. For example, the call of the Northern Potoo is described in terms that should enable anyone to recognize it. This is the key characteristic in separating the Common from the Northern Potoo. Another good example is the description of the Double-toothed kites, explaining the "Distinctive puffy white undertail coverts that spread to the sides of the rump ...." This is a very good field character and this description captures it well.

The artwork is by Dana Gardiner, the same artist that illustrated the *Birds of Costa Rica* by Stiles and Skutch. I found his style a little stiff, giving the birds a flat appearance and missing something of their jizz. These new renderings, while similar to those in *Birds of Costa Rica*, are an improvement. The Wedge-billed Woodcreeper illustration more clearly depicts its remarkable tail. The Emerald Toucanet is the correct subspecies, *Aulacorhynchus prasinus prasinus*, showing a white throat. However, I did have difficulties

with some plates, but I think this relates more to the printing than the artwork. For example, the depiction of Cedar Waxwing is far too intense and the elaeenias are much too dark. The depiction of the Violet Sabrewing is deep blue. I have never seen one in the field that did not look violet (as described accurately in the text and depicted accurately in *Birds of Costa Rica*) under any light conditions. In particular I checked the depictions of Scaly-breasted Hummingbird (poorly done in *Birds of Costa Rica*) and it is better, but I still think a novice would have trouble in the field using the plate for identification purposes.

The nomenclature is fairly standard. The author retains Rock Dove for *Columba livia* (instead of the new "Rock Pigeon" – thereby reducing confusion with the orange-brown Rock Pigeon of South Africa, *Columba guinea*). I had to use the scientific name of *Phaethornis longirostris* to be sure the author's Long-billed Hermit was the same as Stiles and Skutch's (Western) Long-tailed Hermit. I am still confused as to the status and distribution of Passerini's and Cherrie's Tanager (a recent split of Scarlet-rumped Tanager). Only Passerini's Tanager is listed for Belize, which I believe is correct.

This guide is just under 6" × 9" × 1.25" (15 × 22 × 3 cm) and is too large for the average pocket. Although I have some reservations, I still think this book will make a useful field guide, especially if you use the text in conjunction with the plates. This book represents a good stride forward in literature for this section of the Americas. If it is to be used in the field I would be tempted to take along a Mexican guide as a second reference.

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## Herpetology: Third Edition

By F. Harvey Pough, Robin M. Andrews, John E. Cadle, Martha L. Crump, Alan H. Savitsky and Kentwood D. Wells. 2004. Pearson Prentice Hall, Upper Saddle River, New Jersey, USA. ix + 726 pages. U.S.\$93.

In the preface to this edition of *Herpetology*, the authors state, "understanding amphibians and reptiles as organisms requires a perspective that integrates their morphology, physiology, behavior, and ecology and places that information in a phylogenetic context." The authors have done a commendable job at fulfilling this daunting task.

The text book is divided into four parts and each part is subdivided into chapters. Part one (What are amphibians and reptiles?) explores the field of herpetology, the place of amphibians and reptiles in vertebrate evolution, systematics and diversity of amphibians and reptiles, and biogeography. Part two (How do

they work?) has chapters on temperature, energetics, reproduction, locomotion and feeding. Part three (What do they do?) covers movements, communication, mating systems, diets and species assemblages. The fourth part (What are their prospects for survival?) discusses conservation of amphibians and reptiles in a single chapter.

How does this edition differ from previous editions? The second edition was published in 2001 and hence this edition includes many references to recent publications. There is also a greater emphasis on phylogenetic analyses, particularly in the early chapters on systematics. This edition also features colour photographs and colour distribution maps for the families of amphibians and reptiles. The colour maps do not really add much, but the colour photographs are effective. A chapter on biogeography is one of the biggest

changes in content in this edition. The authors have also wisely split the chapter on reproduction into two chapters, one each for amphibians and reptiles. The section on conservation has also been expanded, reflecting the growing concern over many species in both groups.

It is hard to find much wrong with this exhaustive examination of the current state of herpetology. The one conspicuous absence is a glossary, something that would surely be important in any comprehensive textbook such as this. Overall, the combined talents of

six experts with diverse research interests is hard to beat. After two previous editions, the authors have resolved most of the inevitable errors and contradictions resulting from integrating the writing of so many people. It is hard to imagine a better single volume overview of these fascinating creatures.

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## Lizards: Windows to the Evolution of Diversity

By Eric R. Pianka and Laurie J. Vitt. 2003. University of California Press, 2120 Berkeley Way, Berkeley, California, USA. xii + 333 pages. U.S.\$45 Cloth.

Individually, each author of this volume has more than 30 years of lizard study in various areas of the world. These include the southwestern (both) and southeastern (Vitt) United States, as well as Africa and Australia (Pianka) and Central and South America (Vitt). Each has included a personalized capsule biography of his background and interests, each emphasizing what first attracted him to lizards.

This book is number 5 in the University of California Press series *Organisms and Environments*. The introduction explains that it grew from a resolve by authors 10 years ago. At that time, while working on a third lizard ecology symposium volume, they envisioned production of a comprehensive semi-popular book on the group. In a review of the earlier work, the 1994 *Lizard Ecology: Historical and Experimental Perspectives*, Robert W. Murphy (1995. *The Canadian Field-Naturalist* 109(1): 135-136), while generally praising its standards of "highest academic acumen", thought it "not necessarily well suited for bedside reading by the merely curious. And it will not make a good coffee table book as there are no high-gloss photographs".

The latter criticism has been particularly well responded to in the new volume. It is not only coffee-table size in design (28.6 × 22.5 cm) but has the requisite high-gloss photographs scattered throughout. These, often emphasizing activity or displays, splendidly illustrate the diversity of behaviour as well as form and pattern for a well-chosen variety of lizards. There are also a scattering of graphs, tables, diagrams, and maps to illustrate particular points. Included are evolutionary relationships between groups of lizards, biotic and abiotic factors affecting a lizard's well-being, avenue of heat gain and loss for a diurnal basking lizard, comparison of mean percent use of the seven most important prey categories by neotropical and desert lizards, prey size vs lizard size, independent evolution of body type in Jamaica and Puerto Rico, and population size for species of land iguanas on islands of the Caribbean, to choose a few at random.

The introduction raises the question: "what good are lizards?" This is first summarily dismissed with a curt retort, emphasizing the authors' abhorrence of anthropocentrism, "what good are people?". Subsequently, the instructive value of lizards in relation to the ecosystem is attributed to their multitude of forms and the variety of habitats they have successfully occupied. They can thus effectively serve as "model" organisms for broad understanding of ecology and the diversity of animal life, a theme also emphasized in the earlier symposium volumes.

Following the introduction are three major parts with seven, six, and two sections: (1) Lizard Life-styles: Evolutionary history and phylogeny, Getting around in a complex world, Lizards as predators, Escaping predators, Social behavior, Reproduction and life history, and Reflections of a real world; (2) Lizard Diversity: Iguanians, From Geckos to Blind Lizards, From Racerunners to Night Lizards, Skinks, From Girdled Lizards to Knob-scaled Lizards, Monsters and Dragons of the Lizard World; (3) Synthesis: Historical perspective, Lizards and humans. In the initial section it is pointed out that as a group "lizards" is paraphyletic due to excluding the snakes. The latter are omitted as they traditionally have been treated as a separate equal group, though now recognized in contemporary clarification as just an offshot within varanoid lizards (as shown in Figure 1.4, page 16).

The major partitions are followed by a four-page Taxonomic Summary (with number of species in each family or subfamily (if it has been subdivided) listing all included genera). The species totals are given (by major subdivisions) as Iguania 1340+; Scleroglossa: Gekkota 973+, Incertae sedis 151+; Autarchoglossa (excluding snakes but inclusive of Scincomorpha: Lacertoidea, Scincoidea: Anguimorpha [including Varoidea]) 1745+; or collectively over 4200. The book concludes with a three-page Glossary (abiotic to zygodactyly), an 18-page references section, and a nine-page index.

Throughout, the book is a pleasant mix of formal and informal styles. Scientific discussions have shuffled among them separate blocks of personal observations, often field experiences of one or the other author. As stated (page 7) "Throughout this book, we continu-