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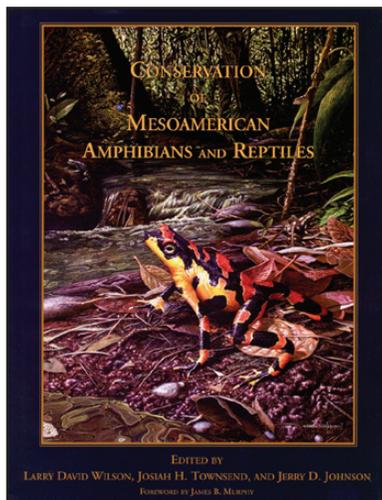
Herpetological Review, 2011, 42(4), 622–623.
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Conservation of Mesoamerican Amphibians and Reptiles

Edited by Larry David Wilson, Josiah H. Townsend, and Jerry D. Johnson. 2010. Eagle Mountain Publishing, LC, Eagle Mountain, Utah (available at: <http://www.eaglemountainpublishing.com>). xvii + 816 pp. Hardcover. US \$135.00. ISBN 978-0-9720154-4-8.

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28,000,000 people in 1950, is projected to have about 130,000,000 people in 2025 (World Resources Institute 2011). These increases, roughly a factor of 5, are characteristic of the region. These dramatic increases in numbers of people are accompanied by rampant habitat modification that is taking a terrible toll. I made my first visit to Costa Rica in 1961, when a trip to Finca La Selva was still an adventure. Finca La Selva was a small, cleared area in a magnificent forest; today The La Selva Biological Field Station is, effectively, the forest.

Given the relatively small size of Mesoamerica compared to the great continents, its herpetological diversity is amazing. My favorite organisms, plethodontid salamanders, are especially well-represented. It is surprising enough that nearly 45% of all salamanders are the Neotropical plethodontids, but even more surprising is that 90% of these occur in Mesoamerica. One would like to think that we have a good understanding of amphibian diversity in the region. The message from salamanders is that we

should not be so sure. In 1926 Dunn reported 30 species of tropical salamanders (*Bolitoglossini*). By 1976 the number had increased to 132 (Wake and Lynch 1976). Today 268 are recognized of which 241 occur in Mesoamerica (AmphibiaWeb 2011). This book lists 215, an indication of the rate of discovery and description of new species from Mesoamerica (and I know of more than 25 awaiting description). These are nearly all morphologically identifiable taxa; we are only beginning to appreciate how many cryptic species are yet to be described (Crawford et al. 2010). While distinctive new clades are still being discovered (McCranie et al. 2008), nonetheless it seems likely that we are largely at the stage of filling in details; the main dimensions of the herpetofauna are now known. Frankly, there is too little habitat remaining that has not been at least superficially surveyed for many more major discoveries to be made. Thus, the appearance of this book represents a benchmark in our understanding of the herpetofauna of Mesoamerica and the threats to it.

Following a Foreword by Jim Murphy and a somewhat longer Preface by the editors, the book is arranged in six major sections. Appropriately the first of these, entitled The Global Amphibian Assessment, is a chapter by Simon Stuart, Janice Chanson, Neil Cox, and Bruce Young. The Preface makes clear that this chapter was the first one completed for the book and that some time has passed since it was produced, due to delays in publication. The chapter is based on the 2004 assessment. Nevertheless, it is a nicely produced chapter that remains both useful and relevant.

The second section, by the editors, is a short, workman-like account of recent taxonomic changes. They recognize that this is a moving target. Unfortunately, by listing “previous names” and “present names” they inadvertently validate names that are currently in dispute. For example, debates continue over the content of such taxa as *Bufo*, *Rana*, and even less well-known taxa (e.g., *Hylobates*), and I do not think the authors are sufficiently clear that many such changes are matters of taste rather than rule, and are optional.

The largest and most ambitious section of the book is entitled “Distributional patterns of the herpetofauna of Mesoamerica, a biodiversity hotspot,” by Wilson and Johnson. The chapter is more than 200 pages long. Following a well-constructed introduction to the natural setting of Middle America, the authors frame their analysis by recognizing 21 physiographic regions and 15 vegetation zones. They then proceed to categorize 731 species of amphibians and 1,148 species of reptiles with respect to these regions and zones. A key element of their analysis is calculation of a Coefficient of Biogeographic resemblance. They conclude that endemism of amphibians is very high, but reptiles, too, show strong endemism, with more than a half of the species endemic to specific countries. It is not surprising that Mexico has the highest levels of endemism, given its relative size and topographic and historical geological heterogeneity. They also calculate a Coefficient of Habitat

Resemblance, which enables them to argue that Subalpine Moist Forest is most unlike other vegetation zones. This is not surprising to me, because salamander endemics, for example, are highly concentrated in cloud forests. This chapter is filled with tables, but also with words, and it is an impressive accomplishment. The data are up-to-date to the end of 2008. In an addendum they discuss 21 new studies (well into 2010) and discuss how these change their results. This is clearly a moving target and I think it was not worth the effort for such a short term update, given the rate at which publications on this region are appearing.

The remainder of the book is dominated by “country assessments,” starting with Baja California, then proceeding from northern Mexico, central highlands of Mexico, southeastern Mexico, Belize, Guatemala, Salvadoran protected areas, Honduras, Nicaragua, Costa Rica, and finally to Panama. In addition to the three editors, authors include 26 people, mostly residents of the countries analyzed. The chapters contain lists of species, current conservation status (CITES, IUCN, and country-specific, where appropriate), environmental vulnerability scores, and occurrence in protected areas, but while there is general uniformity, each chapter has its own unique features. Overall the information content is valuable and the authors have made scattered information generally accessible.

Special conservation topics are covered in six chapters, mostly focused on particular taxa, but one, by Townsend and Wilson, deals with a vegetation type in a particular region (subhumid forest of Honduras). The book concludes with a section labeled “Looking Ahead,” a ca. 50 page account by Wilson and Townsend summarizing the contents of the book and presenting a general discussion. A final appendix lists the conservation scores for the entire Mesoamerican herpetofauna. Their prognosis for the future of the unique herpetofauna of Mesoamerica is not very rosy.

Mesoamerica has an enormous herpetofauna, given its relatively small area, and levels of endemism are extraordinary. The book nicely balances analyses of political entities and those of physiographic regions and vegetation types. It was an audacious undertaking, and yet I think the results are substantive and illuminating. Probably most taxa are sufficiently well known (salamanders may be an exception) that the many tables and calculations will prove to be relatively robust.

The book is beautifully produced and it has a highly professional appearance. The individual chapters resemble journal articles in format, each with both English and Spanish abstracts and separate Literature Cited sections. The layout is attractive, the illustrations and photographs (although not numerous) are high quality and uniform in production, and the book is solidly bound with an attractive dustcover. However, the downside is that the book weighs 3.2 kg!

I congratulate the editors and authors for making a permanent contribution to our knowledge of the herpetofauna of Mesoamerica. Every student of the region will want to own this book.

LITERATURE CITED

- AMPHIBIAWEB: INFORMATION ON AMPHIBIAN BIOLOGY AND CONSERVATION [WEB APPLICATION]. 2011. Berkeley, California: AmphibiaWeb. Available: <http://amphibiaweb.org/> (accessed: September 15, 2011).
- CRAWFORD, A. J., K. R. LIPS, AND E. BERMINGHAM. 2010. Epidemic disease decimates amphibian abundance, species diversity, and

evolutionary history in the highlands of central Panama. *Proc. Nat. Acad. Sci. USA* 107:13777–13782. doi10.1073/pnas.0914115107.

MCCRANIE, J. R., D. R. VIEITES, AND D. B. WAKE. 2008. Description of a new divergent lineage and three new species of Honduran salamanders of the genus *Oedipina* (Caudata, Plethodontidae). *Zootaxa* 1930:1–17.

WAKE, D. B., AND J. F. LYNCH. 1976. The distribution, ecology, and evolutionary history of plethodontid salamanders in tropical America. *Sci. Bull. Nat. Hist. Mus. Los Angeles Co.* 25:1–65.

WORLD RESOURCES INSTITUTE. 2011. Population: Growth rate of total population. Available: http://earthtrends.wri.org/searchable_db/index.php?theme=4&variable_ID=449&action=select_countries (accessed: September 15, 2011).

Herpetological Review, 2011, 42(4), 623–625.
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Snakebit: Confessions of a Herpetologist

By Leslie Anthony. 2008. Greystone Books (<http://www.dmpibooks.com/greystone-books>). 292 pp. Hardcover. US \$27.95. ISBN 978-1-55365-236-6 (also available in paperback and e-book editions).

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Reviewing books can sometimes be a tedious, dreary task for a scientist, foisted upon us by friendly (or pushy) editors-in-need. Hesitation to take on a book review is usually not so much based on disinterest in the matter presented in the book, but on the fact that there really isn't much “bang for the buck” in writing a book review: who really reads them anyway? Furthermore, considering the time commitment required for making a book review passably entertaining, we might rather spend our valuable time studying a real data set.

The request to review Leslie Anthony's *Snakebit* was different for two reasons, which gave the task an irresistible allure. Firstly, we know this ink slinger and most of his cabal well and, secondly, we are both immortalized in Chapter 8, entertainingly and ominously titled “Another Messy Freak Show.” Playing a sufficiently prominent part in someone else's life to end up in “their book” is special, and led to instant agreement on our part to compose this review when approached. Little did we know how this freak show would play out, and we ask the reader's

