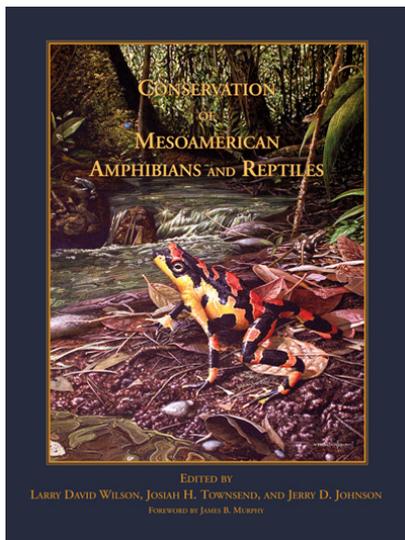


## *Conservation of Mesoamerican Amphibians and Reptiles*

Larry David Wilson, Josiah H. Townsend and Jerry D. Johnson

2010, Eagle Mountain Publishing, Utah, 812 p.



Mesoamerica (or Middle America) is one of the world's major herpetofauna hotspots with over 1,900 species of which about 1,000 are endemic. It is a hugely complicated region with megadiverse habitats and complex conservation conundrums. *Conservation of Mesoamerican Amphibians and Reptiles* is the result of dedicated collaboration and collates an impressive 21 contributions from 43 authors. It is razor sharp, concise, hugely informative and has exquisite attention to editorial detail.

The book begins by introducing the region, its history of global amphibian assessment, recent taxonomic changes, diversity and endemism. For any student of Neotropical herpetology these three chapters alone provide an essential backdrop to the region's herpetofaunal history, wading through masses of important literature.

The book is then divided into logical chapters for each country in Middle America. Each of these sections provides distributional analyses, physiography, elevation, vegetation zones, conservation biology, zoo biology, environmental problems and governmental policy structure in relation to conservation. Mexico differs slightly in being treated in four

separate regions, but this is deservedly so due to the incredible diversity within each. Each country specific chapter is titled differently and this reflects content and variation in conservation history, research conducted, deployed conservation strategies and current progress.

Of particular interest to me was the chapter by Mahmood Sasa and colleagues on Costa Rica. This chapter, like other geographically divided sections, provides not only an extensive list of species for the country, but also distributional and habitat inferences that shed interesting light on many species' biogeography and ecology. It is interesting to note the massive diversity (189 amphibians, 231 reptiles) and extreme levels of endemism (52 amphibians, 19 reptiles). With such numbers it is easy to realise that Costa Rica, a country the size of South Carolina, holds 3% of the world's amphibians and 4% of its reptiles. Further to the species distribution is an in-depth praise on habitat degradation that also reviews the socio-political influences on rainforest threats to Costa Rica and the historical successes and issues with the countries' biological reserve network. Attention to detail and extensive referencing also helps any reader grasp the importance of agriculture and urbanisation that has affected natural lands across Costa Rica. The analysis of reduced distribution for a number of species provides sobering reading. The reviews then continue with pesticide impacts, emerging infectious diseases, invasive species, overharvesting and trade in herpetofauna - all concisely treated. A very useful table provides the identity of all the major herpetofauna institutions and collections that are active in the country - something any student would need to know! No stone is left unturned in the chapter; sea-turtles receive extensive summary treatment; crocodylians, global amphibian declines, environmental education and conservation laws round off its

review content. Then, an essential and even-handed appraisal of the threat levels and priorities for future directions ends the chapter.

It would be impossible to comment on every country chapter content in this single review for the *Bulletin* but I hope by offering a taste of its massive encompassing content it will enthrall readers to buy a copy. For students and researchers, the species lists, and systematic addendum, within this tome provide the starting point for Mesoamerican taxonomy and are clearly a must read for anyone monitoring emerging taxonomical changes in the Neotropics.

The breadth of concepts addressed in this book have inspired me to review my research directions in Middle America and in my opinion the information within it serves to function as the baseline reference for conservation of

herpetofauna in the region for many years. Its price reflects what one would expect for its size and content and its colour plates do not disappoint. I continue to recommend its essential purchase and/or reading for all research students heading for Middle America. The book is aptly dedicated to the late Peter Stafford, whom I worked tirelessly on the Belize chapter and regrettably never saw the final content. My only wish is that the book was not available earlier in my career!

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