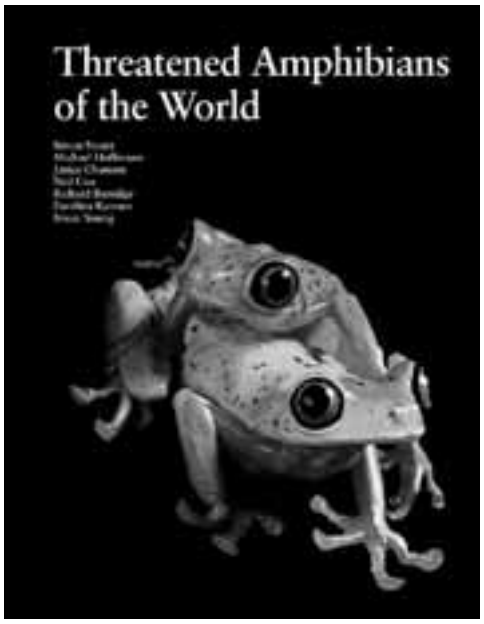
BOOK REVIEW

Threatened Amphibians of the World

Threatened Amphibians of the World. 2008. Edited by S.N. Stuart, M. Hoffmann, J.S. Chanson, N.A. Cox, R. Berridge, P. Ramani, and B.E. Young. Lynx Ediciones, with IUCN - The World Conservation Union, Conservation International, and NatureServe. Barcelona, Spain. xv + 758 pp. Hardback – ISBN: 84-96553-41-8. $124.00.



Declining amphibian populations have received considerable attention in recent years, largely due to the unexplained causes responsible for those declines. Increasing evidence suggests that many species are already extinct and many others are on the verge, leading to a growing concern that amphibians are the canaries in the coal mine — indicators of problems that soon will affect other, momentarily more resilient forms of life, including us.

This massive, profusely illustrated tome provides a comprehensive assessment of the conservation status of the world's amphibians, with descriptions of distributions (with maps), habitats, natural histories, threats, and current or needed conservation plans for the ~1,900 species known to be threatened with extinction — and color photographs are provided for most of them.

Forewords by noted conservationists Julia Marton-Lefèvre (Director General of the IUCN), Russell A. Mittermeier (President, Conservation International), Mary L. Klein (President and CEO, NatureServe), and Holly T. Dublin (Chair, IUCN Species Survival Commission) paint a gloomy picture, with Mittermeier saying that we should "hope that a second edition of this book does not require two volumes…." Prefaces by scientists Karen R. Lipps and Joseph R. Mendelson III and Claude Gascon and James P. Collins (Co-Chairs, IUCN-SSC Amphibian Specialist Group Secretariat) provide a bit more detail, but the tone is equally dour. Acknowledgements to contributors, donors, and conservation partners round out the introductory section.

Following are "introductory" chapters on amphibians, why we should save them, the history, objectives, and methods of the Global Amphibians Assessment (GAA), the current state of amphibians, and a series of chapters organized by zoogeograph-

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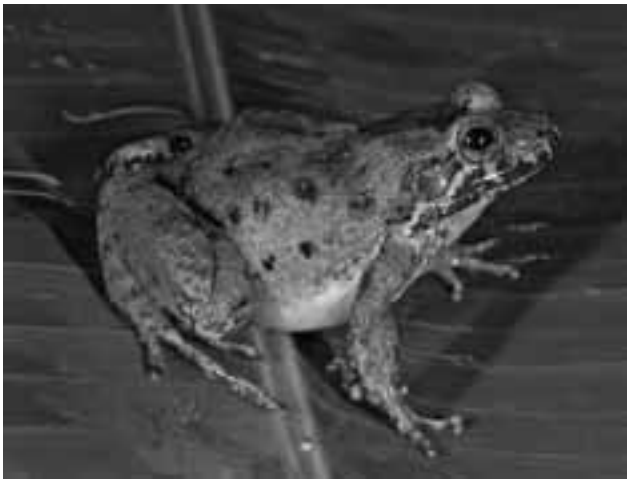
St. Vincent Frogs (*Pristimantis shrevei*) occur only at higher elevations on St. Vincent in the Lesser Antilles. The species is listed as "endangered" because of a limited extent of cccurrence, all individuals are in fewer than five locations, and the extent and quality of the habitat continues to decline.



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Windward Ditch Frogs (*Leptodactylus validus*) are listed as being of "least concern." Although the extent of occurrence is limited, the species is common and adaptable, the population is presumably large, and it is unlikely to be declining fast enough to qualify for listing in a more threatened category.

ical realms (essentially corresponding to the continents), followed by a concluding chapter summarizing the necessary responses to the global declines of these animals. Chapters are overflowing with data, maps, charts, graphs, tables, and photographs illustrating species representative of varying responses to myriad concerns and a selection of people actively engaged in their conservation. Most of the chapters are supplemented by "essays" written by experts on more detailed aspects of the problems facing amphibians or on geographic areas of particular concern within the broader regions addressed by the relevant chapter (e.g., California within the Nearctic Realm). These, too, are profusely illustrated.

Next comes the heart and soul of the volume, ten pages devoted to accounts of species known to have gone extinct in historical times, 464 pages to accounts of species threatened with extinction ("critically endangered," "endangered," or "vulnerable" in terms of IUCN Red List criteria), and another 36 pages to species considered to be "near threatened." Individual accounts vary in length, but most provide only short statements about geographic range, population, habitat and ecology, major threats, conservation measures, a short bibliography, and the names of the "experts" who provided the data. A few accounts of species that have received considerable attention are much longer — but the small number of such accounts speaks eloquently to the sad reality that very little is known about many of these animals. Every account is accompanied by a distribution map and most by a color photograph (a very few by colored illustrations) of the species in question.

A 48-page bibliography of cited references, a phenomenally valuable tool for anyone seeking information on the current state of the world's threatened amphibians, precedes 15 appendices that provide IUCN Red List categories, a summary of the criteria used to evaluate the status of species, definitions of the regions for which data were collected, a summary of IUCN Red List status by genus, species listed by territory, the declaration of an Amphibian Conservation Action Plan, the scale of conservation needs, the nature of required landscape-scale conservation action, a list of critically endangered and endangered species for which captive breeding is an essential need, lists of species in each of the IUCN Red List categories (including "data deficient"), differences in status listed for some Brazilian species, a glossary, and a list of websites and related resources. An index to species accounts completes the book.

This volume represents a critically important step in the conservation of one group of animals that can and will serve as a model for future volumes addressing other groups. I found little to criticize. The inevitable time lag between the GAA, which commenced in 2001, and the publication of the book resulted in some instances of out-of-date taxonomy (changes published during the period devoted to compilation, editing, and printing). Although biologists working with amphibians will have no difficulties tracking the species in which they are interested, conservationists less familiar with these animals might be confused by generic or even familial assignments that differ from those in the current literature. In the chapters and accounts dealing with taxa with which I am conversant I found only one error in content (a statement that a species had not been encountered since 1991, although my students and I had studied a population of that species in the late 1990s — the error undoubtedly attributable to the difficulty in compiling information on so many taxa and communicating with an almost equal number of biologists). I noticed no typographical errors, which reflects the efforts and expertise of the editors.

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Cane Toads (*Bufo marinus* [*Rhinella marina*]) are of "least concern." Not only is the species extremely adaptable, it has been introduced widely (ostensibly to control insect pests in sugarcane fields), where it may threaten native species by competition or predation.

JOHN MAGOR

Cuban Treefrogs (*Osteopilus septentrionalis*), like Cane Toads, are of "least concern," voracious predators, and have been widely introduced. Unlike most amphibians, which are sensitive to environmental changes, these two species may one day be part of a circumtropical herpetofauna composed of a few extremely adaptable species.

Testament to a biological catastrophe that may have progressed far enough to preclude preventative or even mitigating efforts in many instances, this is not a happy book. However, it is a phenomenally valuable and authoritative resource for herpetologists and conservation biologists, but one so rich in information that anyone with an interest in these animals and the state of our world would benefit from reading it. Although the large format (~9.5 x 12") replete with color is suggestive of a coffee-table volume, the depressing topic and plethora of data will probably cause it to be relegated to the bookshelves of those concerned about the future of amphibians and our world.

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