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Review of *Amphibians and Reptiles of New Mexico* by William G. Degenhardt, Charles W. Painter, and Andrew H. Price

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Amphibians and Reptiles of New Mexico. William G. Degenhardt, Charles W. Painter, and Andrew H. Price. Albuquerque: University of New Mexico Press, 1996. xix+431 pp. Maps, figures, color plates, glossary, literature cited, and index. \$35.00 cloth (ISBN 0-8263-1695-6).

Each year field guides and regional books with varying degrees of usefulness and new information are published. Such books can be ranked on a continuum between made-for-the-public identification guides to true scientific contributions. This massive work on the reptiles and amphibians of New Mexico certainly fits into the latter category. It is a summation of a tremendous amount of the authors' research, which will be useful for biologists looking for complete information concerning the 123 species of reptiles and amphibians from this state and throughout the Southwest. It follows

in the tradition of data-rich guides such as *The Salamanders of Ohio* (Pfingsten and Downs 1989) and *The Reptiles of Virginia* (Mitchell 1994).

This book is actually the second guide to the herpetofauna of New Mexico published recently, yet it wins hands-down over M. A. Williamsen et al's, *Snakes, Lizards, Turtles, Frogs, Toads and Salamanders in New Mexico* (1994). These two books reveal the contrast between a glossy, non-peer-reviewed book with numerous errors, and what is clearly a patiently compiled, long-term work. I would strongly recommend spending the additional \$15 to purchase the book by Degenhardt et al.

Following a foreword by Roger Conant and the authors' preface and acknowledgments is a physiographic sketch and a brief history of herpetology in New Mexico. The authors rightly point out that Native Americans were undoubtedly the first herpetologists in New Mexico; reptiles and amphibians were significant totems in their everyday and spiritual lives.

Each species account consists of a color photograph (123 photos compiled in 46 pages), type information, distribution, description, similar species, systematics, habitat, behavior, reproduction, food habits, and remarks. The authors researched the original descriptions, and corrected several errors in previously published works. They tackle head-on the systematic complexities of several taxa, and make important contributions to systematics, such as designating a likely holotype for *Gastrophryne olivacea* and correcting several dates and type localities. Included in each account are descriptions of adults and juveniles, and existing data on natural history. Behavioral and natural history notes are a combination of the authors' personal observations and published accounts.

The included keys to all groups appear to work well, and are accompanied by excellent technical drawings. The key to the frogs of New Mexico is particularly useful for the most difficult to distinguish taxa—toads (9 taxa) and ranid frogs (6 taxa). The key to the tadpoles and salamander larvae (written by foremost tadpole biologist Ronn Altig) could have included a few more detailed explanations of several terms. For example, in the key to *Bufo* larvae, couplet 13 states "P-3 about same length as P-2," but there is no explanation of the terms P-3 and P-2, although they are defined in the glossary. Additions to the illustration would have made things easier for the person unfamiliar with tadpole oral morphology. It also would have been helpful to have the amphibian larvae illustrated with drawings or photographs.

Several errors did make their way into the book, and authors published a corrigenda with 23 errors to be corrected in the text. The errors are mostly

of an editorial nature, but they demonstrate that the authors cared enough about the users of their book to take it upon themselves to publish the necessary corrections. Because the taxonomy of each animal was so painstakingly detailed, I would like to have had the etymology of each species described. Still my criticisms are all minor; I found no omissions or typographical errors outside of the published corrections. This is definitely the book I will reach for when I need information on southwestern amphibians or reptiles.

At a cost of \$35, this hardcover volume is a tremendous value. It is truly a beautiful book, filled with detailed systematic, distribution, and life-history data, and complemented by excellent artwork, maps, and photographs. The photographs uniformly excellent. The impressive habitat photographs depict the dramatically varied habitats of New Mexico. The 47 pages (nearly 1600 references) in the literature cited section attest to the fact that the authors have patiently worked on this book, producing a volume that is the definitive guide to the reptiles and amphibians of the Southwest, and a pinnacle toward which authors of other regional guides can strive. **Jeffrey R. Parmelee**, *Natural History Museum and Department of Systematics and Ecology, University of Kansas*