

Venomous Reptiles of the United States, Canada, and Northern Mexico. Volume 1

By C. Ernst, and E. Ernst. 2011. Johns Hopkins University Press, 2715 North Charles Street, Baltimore, Maryland 21218-4363 USA. xviii + 352 pages. 75 USD. Cloth.

Gila Monsters. Cottonmouths. Seasnakes. Such exotic species don't have very much in common other than the fact that they are all venomous reptiles. This first volume in a two volume series provides detailed summaries of the known biology of the venomous reptiles of North America. Together these books are an update to Carl Ernst's 1992 book *The Venomous Reptiles of North America*. Volume 1 covers 13 species: the 2 lizards, 5 elapid snakes (4 coral snakes and 1 seasnake), and 6 viperid snakes. Volume 2 will cover the rattlesnakes of the genus *Crotalus*. Only 3 of the total species covered in both volumes occur (or did occur) in Canada: the Massasauga (Volume 1) and the Timber and Western Rattlesnakes (Volume 2).

The geographic focus of the book is all species found north of 25° Latitude, which corresponds to the tip of the Baja peninsula of Mexico. This makes the book of limited value to a Mexican audience as the many venomous species of southern Mexico are excluded. Possibly, the authors include species from northern Mexico because of their interest to American researchers.

The book opens with chapters on reptile venom, statistics on envenomation, treatment of envenomation, the conservation of venomous reptiles and a key to the families of venomous reptiles. The bulk of the book provides detailed life history accounts of the various venomous reptiles. The accounts all follow the same standardized format: recognition (detailed description of the species including colour patterns, scale counts and body lengths), geographic variation, confusing species, karyotype, fossil record, distribution, habitat, behaviour and ecology, reproduction, growth and longevity, diet and feeding behaviour, venom delivery system, venom and bites, predators and defense, parasites and pathogens, populations (available data on abundance), and remarks (miscellaneous information). Each account also includes black and white photos of the species as well as a distribution map. The species accounts vary in length depending upon how much information is available. The account for the woefully understudied West Mexican Coral snake (*Micrurus distans*) is

less than 5 pages, (including photos and a distribution map) but most accounts are at least twice that length. The book also includes colour photos of all the species. These photos are generally fairly good, but some are dark and rather mediocre.

Overall, the quality of the text is quite high. The Ernsts have summarized a vast amount of scientific literature. The literature cited for the book is almost 100 pages in length. The book is not without errors, of course. Species protected by law in Canada or Mexico are listed in one table and the authors overlooked that the Western Rattlesnake has been officially designated Threatened in Canada since 2004.

The authors claim that between "2,000 and 3,000 rattlesnake bites are reported annually in Canada" (page 25). This statistic seemed wildly improbable and a little fact-checking confirmed this. The cited paper by Kasuriratne and collaborators actually states that there are an estimated 260-372 envenomations per year in Canada. The estimate appears to be simply scaled to the US figures as their low and high estimates are approximately 10% of the US numbers. There do not appear to be any comprehensive data on snakebites in Canada but even 260 per year may be an overestimate. Considering that this book will likely become a standard reference, the 2000-3000 bites per year in Canada will likely be widely cited. Such mis-information can hardly benefit rattlesnake conservation.

Despite some careless errors, this is still a first rate book. Those primarily interested in venomous reptiles in the USA or Canada will find it an important reference work. Those with a broader geographic interest need to compare it with *The Venomous Reptiles of the Western Hemisphere* by Campbell and Lamar, published in 2004. Campbell and Lamar's two-volume set is fairly recent and covers 192 species. After all, why settle for just North America when you can have the entire western hemisphere?

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