

The Secret Social and Emotional Lives of Reptiles By J. Sean Doody, Vladimir Dinets, Gordon M. Burghardt

From [Marc Bekoff, Psychology Today / Animal Emotions](#), Reviewed by Kaja Perina

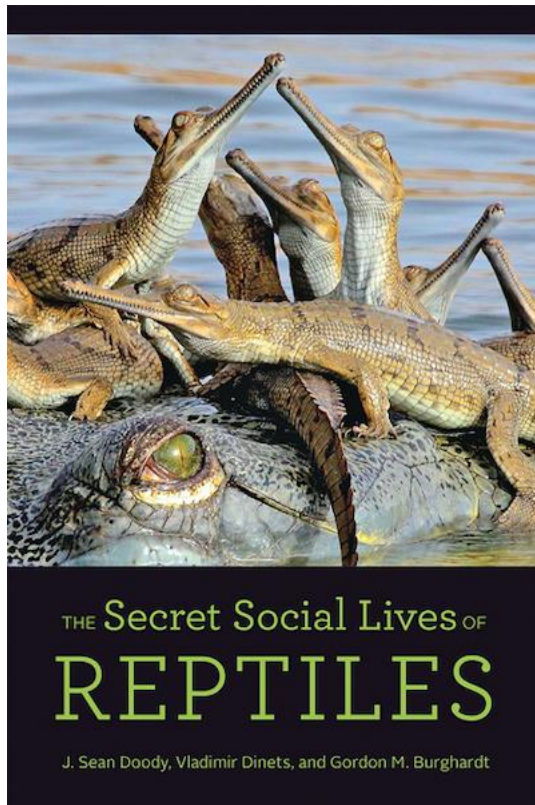
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A book based on detailed research dispels myths about these fascinating animals.

Reptiles are fascinating nonhuman animal (animal) beings. Many people dismiss or underestimate [the depth of their social, cognitive, and emotional lives](#) and don't realize that they're *not* "easy pets" and that [they greatly suffer when held captive](#).¹ I'm especially pleased that the University of Tennessee's [Dr. Gordon Burghardt](#), a co-author of a recent encyclopedic book titled *The Secret Social Lives of Reptiles*, could answer a few questions about this landmark work.^{2,3} Here's what he had to say.

Why did you and your co-authors write *The Secret Social Lives of Reptiles*?

We all work on different groups of reptiles, but have been appalled by the widespread ignorance of non-avian reptile behavior and the dismissal of the view that they can have complex cognitive, emotional, and social lives. We decided that we should bring together the great amount of recent research on reptile behavior that is upending many assumptions, even by other behavioral scientists.



Complex parental care, including by a male protecting babies, many of whom are not his own. Source: Johns Hopkins University Press, with permission.

How does your book relate to your backgrounds and general areas of interest?

I've focused my studies of reptiles largely on snakes, turtles, iguanas, and monitor lizards. I was largely concerned with chemoreception, foraging, and antipredator behavior, usually in young animals. However, when I started doing field work in Panama, I became intrigued by the sociality of the young iguanas and my students and I sat for hours in a blind at a communal nest site and observed awesome social interactions and coordinated activity by the emerging hatchlings.

Who is your intended audience?

The book is for those who are interested in [animal behavior](#) in general as well as for a herpetological audience. It is not a trade book, but does contain lots of photos and fascinating descriptions of behavior, including extinct reptiles such as dinosaurs. We want to convince biological and social scientists, as well as the general reader, that the evidence for reptile sociality needs to be both appreciated and confronted. We also support our theme with a very lengthy reference section and encourage readers to explore these primary reports.

What are some of the topics you weave into the text and what are some of your major messages?

The book begins with an overview of social behavior, reptile evolution and relationships, and then, because reptiles are so diverse, aspects of their life history, physiology, sensory and [neural](#) features, modes of reproduction, and so on. Then we begin the chapters on social organization, courtship, communal nesting, parental care, behavioral development, and social aspects of feeding, predator avoidance, thermoregulation, and other behavioral systems.

We also review the fascinating research on [cognition](#), [social learning](#), emotion, and other topics. One of the main messages of the book is that there is great variation across even closely related species in social behavior, more so than in birds, mammals, or amphibians. This opens up fertile areas for comparative research that can help us understand the processes of social evolution. For example, in the large group of lizards called skinks, there are those that give live birth and also those that lay eggs. There are those that are rather short-lived and others that can live for decades. There are animals, like our American 5-lined skink, where the mother lays her eggs, guards them, and may even help them get out of their egg shells, but the offspring are soon on their own.

In some Australian skinks the babies stay with their parents, and three generations may be in the same family colony. How and why does such diversity emerge? Similar variation is seen in snakes. The cover photo of our book shows a father Gharial with babies riding on his head. In actuality, these giant crocodylians may have upwards of 100 hatchlings being protected by a single male. The species may, tragically, soon become extinct in its native India. Ours is the first book to focus on a comprehensive view of sociality in all groups of non-avian reptiles.

Are you hopeful that things will change for the better as people connect with reptiles based on some of what you've written?

I have been writing on the [bias](#) against reptiles for more than 50 years and the shifts have been minimal in many respects. However, the scientific community is now very engaged, as many of the most [charismatic](#) and large species are highly endangered, such as many sea and freshwater turtles, tortoises, crocodylians, Caribbean iguanas, and even some snakes and small lizards. The return of alligators in the

Southeast US is a success story, and many people in the Southwest are now protective of their diverse rattlesnake populations. Horrible snake roundups are increasingly being targeted for elimination.

On the other hand, the slaughter of invasive reptiles, as in Florida, is troubling. The methods used would provoke serious discussion if proposed for use against invading monkeys, wild horses, deer, and so on. Here the fact that reptiles do not show anthropomorphic human-like facial expressions or scream in pain dulls our [empathy](#) with what they might be experiencing. Culling of rabbits, rodents, geese, and cats seem to arouse more concern than similar methods used for reptiles. The slaughter of reptiles, including their eggs, for food and leather, is still common globally. Collectors for the pet trade are also responsible for local and perhaps even species extinction. This is, ironically, fueled somewhat by the greatly increased popularity of reptiles as companion animals.

Is there anything else you'd like to tell readers?

Learn about the neat reptiles who live around you. They may be harder to find and observe than mammals, birds, and insects, but we evolved from their ancestors and we still share aspects of their behavior and psychology. Simple observations can be done by anyone these days and easily captured by digital cameras and phones. There are about 11,000 reptiles species, and we know virtually nothing about the majority, even in North America, but especially in the rest of the world.