
BOOK REVIEWS

Biology of the Boas and Pythons

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Biology of the Boas and Pythons is the product of an international symposium – Biology of Boas, Pythons, and Related Taxa – held in 2005 in Tampa, Florida. With contributions from 79 authors, it brings together in one stunning volume a collection of 30 original research papers on the natural history of this fascinating group of snakes. The main focus of the book is on the larger boids and pythonids, with some species represented more frequently than others; six papers for example are devoted to studies of *Boa constrictor*, and *Python molurus* is featured in five. A number of papers are included, however, which deal specifically with smaller members of these groups.

Following a preface (Richard Shine), and introduction by the editors ('The biology of boas and pythons: a retrospective look to the future'), the content of the book is divided into four main sections – Ecology, Natural History, and Evolution; Behavior; Physiology, Neurology, and Reproductive Biology; and Conservation. Space prevents discussion of these sections in any great detail, but their various component papers are listed as follows:

Ecology, Natural history, and Evolution (10) – the higher-level relationships of alethophidians as inferred from nuclear and mitochondrial genes; the ecomorphology of boines, with emphasis on South American forms; the thermal biology of *Python natalensis*; reproduction and thermoregulation in *Boa constrictor occidentalis* in relation to habitat use; comparative ecology of *Python reguis* and *P. sebae*; body size and head shape of island *Boa constrictor* in Belize; habitat use by *Epicrates monensis* on Isla Mona; natural history of *Eunectes murinus* in the Venezuelan Llanos; foraging ecology of the Green tree python; and the use of roadkill and incidental data as indicators of habitat use in *Morelia kinghorni* and *M. spilota*.

Behaviour (5) – motor recruitment patterns during striking; response of *Eunectes notaeus* to aquatic acoustic stimuli; constricting strength in snakes; courtship, mating and alternative reproduction tactics in *Ungaliophis continentalis*; geographic variation in pheromone trailing behaviors of *Liasis mackloti*.

Physiology, Neurology, and Reproductive Biology (6) – the thermal physiology and thermoregulatory behavior

of Rubber boas; adaptive correlation between feeding habits and digestive physiology for boas and pythons; vision and infrared imaging in boas and pythons; the infrared sight of boas and pythons; the specific dynamic-action in boas and pythons; and sexual size dimorphism and the mating system of Green anacondas.

Conservation (7) – effects of habitat loss on the genetic structure of populations of *Boa constrictor occidentalis*; conservation biology of the Yellow anaconda in northern Argentina; spatial ecology of resident and displaced *Boa constrictor imperator* on Ometep Island, Nicaragua; responses of *Corallus coooki* and *C. grenadensis* to disturbed habits; ecology and conservation of *Boa constrictor* on the Cayos Cochinos, Honduras; genetic population structure of the Yellow anaconda in northern Argentina; and introduced populations of *Boa constrictor* and *Python molurus bivittatus* in southern Florida.

Reproduced throughout in colour, *Biology of the Boas and Pythons* contains more than 200 photographs, maps, and other illustrations. Most of the images are of excellent quality, and some of those taken of snakes in their natural environment are spectacular; take a look at the huge *Python natalensis* photographed from a helicopter as it basks near a porcupine burrow (p. 70), and the *Python molurus bivittatus* in an Everglades swamp killed after it had consumed an overs-sized American alligator (p. 426). The magnificent colour painting on the dust jacket deserves special mention; produced by renowned wildlife artist Carel Pieter Brest Van Kempen, it is a striking composition of a Reticulated python striking at prey from its ambush site on a river bank. At the beginning of the book is a photograph of the symposium participants, at least some of whom are presumably also the authors, but who they are is not exactly clear; no names are given in the caption beneath.

Biology of the Boas and Pythons is an outstanding book of high scholarship, and I have no doubt will receive broad acclaim not only within the herpetological research community, but among snake enthusiasts in general. In their opening chapter, Henderson and Powell express the hope that 'it will inspire both seasoned and novice snake biologists to explore the potential for conducting field-driven projects with these amazing animals'. Given that we know so little about the natural history of many species, and that some are among the most exploited of all reptiles, there is quite clearly an urgent need for such work.

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