

## BOOK REVIEWS

*Herpetological Review*, 2012, 43(1), 155–157.  
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### Lizards of Peninsular Malaysia, Singapore and their Adjacent Archipelagos

by L. Lee Grismer. 2011. Edition Chimaira, Frankfurt am Main (www.chimaira.de). 728 pp. Hardcover. 98,00 Euros (approximately US \$125.00). ISBN 978-3-89973-484-3.

**OLIVIER S. G. PAUWELS**

Département des Vertébrés Récents,  
Institut Royal des Sciences Naturelles de Belgique,  
Rue Vautier 29, 1000 Brussels, Belgium  
e-mail: osgpauwels@yahoo.fr

**AHMAD NORHAYATI**

School of Environmental and Natural Resource Sciences,  
Faculty of Science and Technology,  
Universiti Kebangsaan Malaysia, 43600 UKM Bangi, Selangor, Malaysia  
e-mail: noryati@pkrisc.cc.ukm.my

L. Lee Grismer

#### Lizards of Peninsular Malaysia, Singapore and their Adjacent Archipelagos



Edition Chimaira

Many books have recently been published on the herpetofauna of Southeast Asia, but this is not just yet another of them. This new opus, a *chef-d'oeuvre* as we are tempted to say, is extremely informative and accurate, amazingly illustrated, and summarizes an impressive amount of knowledge and experience accumulated by the author on the subject treated. With its excellent glossy paper and high binding quality, it sets new, very high standards for herpetological books on the region. The author is already well known for his work on

herpetological subjects in both the Old and the New Worlds and for his large number of mostly taxonomic publications on the reptiles of Peninsular Malaysia, including a recent guide on the reptiles and amphibians of the Seribu Archipelago (Grismer 2011), and the (co-)description of 32 of the 124 Peninsular Malaysian native lizard species—i.e., more than a third!—, among them 14 of the 19 local *Cnemaspis* spp., and 8 of the 16 *Cyrtodactylus* spp.

The main sections of the book are the brief introduction (pp. 14–15), an abundantly illustrated presentation of the physical

and natural environments and the climate found in the area covered by the book (pp. 17–80), a general presentation of the local herpetofauna with a history of the herpetological research on the area (pp. 81–96), the species accounts (pp. 97–703) which form the principal part of the book, including identification keys to families, genera, and species, a brief section on two introduced exotic lizard species (the iguanid *Iguana iguana* and the agamid *Physignathus cocincinus*) (p. 704), another brief section on conservation (pp. 705–707), and the bibliographic references (pp. 708–728).

With not a single exception, photographic illustrations in the book are absolutely astonishing. Among the 530 figures in the book, all in color, one is a map of Southeast Asia, two others are maps of Peninsular Malaysia, 96 show habitats (sometimes featuring a snake or an amphibian as well), and all others are lizard photographs, including lizards in their natural habitat and detailed views of body parts (such as heads with extended dewlaps or expanded wings of *Draco* spp.). Each photograph is accompanied by detailed locality data, which adds a lot of information. Actually a few photographs lack locality data (in particular, the *Gekko smithii* on pp. 82–83 was photographed on Pulau Perhentian Besar, Terengganu; the *Cyrtodactylus consobrinus* on p. 290 was in Hutan Lipur Sekayu, Terengganu; the *Eutropis multifasciata* p. 544 was in Bukit Larut, Perak, and the *Varanus salvator* on p. 683 was in Kuala Perlis, Perlis; L. L. Grismer, pers. comm.). Photos of Malaysian lizards were taken by the author in virtually all kinds of environments, from mangroves and highland cloud forests to karst caves, restaurants, and even massage parlors. One of the most extraordinary photographs in the book, on page 101, used to illustrate the introduction to Agamidae, shows a *Gonocephalus robinsonii* in its biotope. We asked Lee Grismer how this remarkable shot was taken: “The wide angle shot took several days to set up. I thought about it for a week before I shot it and I had very specific ideas and images in my head of what I wanted. I wanted a flashy upland endemic known only from a cloud forest and the shot to ‘feel’ cold and wet. I scouted out a place in Cameron Highlands to shoot the lizard and stayed throughout the day to determine at what time the best light would occur and hopefully get an idea of when the fog would arrive. Then I went to an area to where *Gonocephalus robinsonii* are the most attractive. I caught the lizard and brought it back to the site and set it on the log and got my gear ready. Just as I began shooting, the clouds began to roll in as you can see in the top of the photo” (L. L. Grismer, pers. comm.).

Each species account includes the scientific name of the species and its author(s), a common Malaysian name, a reference to the original description of the species with the type locality, a diagnosis, a morphological description, a coloration description, a distribution section, a natural history section, and a list of the examined museum material with collection numbers and localities. In some species, when appropriate, there is an additional section

on geographic variation. In those cases where the species is variable or suspected to be a species complex, the variation is often well illustrated in the several photographs provided, and several potentially undescribed species are illustrated (like the lowland form of *Cnemaspis mcguirei* shown on figures 287–288, which actually represents a distinct, undescribed species — L.L. Grismer pers. comm., as well as several atypically colored *Cyrtodactylus pulchellus*). Each species account is accompanied by a specific dot map, with a detailed caption listing the mapped localities (these maps are not counted among the 530 figures mentioned above). Maps are not provided for only four species: *Hemidactylus frenatus* and *Eutropis multifasciata*, because they are ubiquitous, and the two introduced alien species. About 90% of the photographs were taken by the author himself. Only nine species are not illustrated (*Pseudocalotes dringi*, *Cnemaspis argus*, *Cyrtodactylus stresemanni*, *Lygosoma bampfyldei*, *Sphenomorphus anomalopus*, *S. cophias*, *S. langkawiensis*, *S. malayanus*, and *S. sibuensis*), and just a few species were illustrated only by photographs taken out of Peninsular Malaysia (*Hemidactylus garnotii*, from Myanmar; *Eutropis novemcarinata* from Myanmar; *Lygosoma albopunctatum*, from India; *Lygosoma herberti*, from Thailand; *Sphenomorphus maculatus*, from Cambodia; and *S. stellatus*, from Cambodia and Vietnam). Such a huge proportion of photos taken of individuals native to the area covered by the book is absolutely remarkable. Too many books are illustrated by photos of individuals from populations outside the area covered, and that sometimes later turn out to belong to distinct taxa.

Detailed morphological data on Malaysian lizards were lacking for many species, and dispersed in many journal articles, often old and difficult to find. This new book offers a very complete and homogeneous description of each species, in a level of detail that has not been achieved in any synthetic work on Southeast Asian lizards since Taylor's (1963) opus on Thai lizards. These detailed morphological descriptions make the book an extremely useful tool for identification and for the future work of taxonomists.

The natural history section is based on very thorough field notes taken for 15 years and retrieved from taxonomic indices the author put in his notebooks at the end of each year, a method that was already successfully adopted for the author's book on Baja California (2002). It is by reading these field notes that one fully realizes how much field work actually entered into this book: many remote localities were visited at numerous occasions over a number of years and at different seasons, which allowed, among other useful information, a better understanding of the reproductive cycles of each species. Lee Grismer's *in situ* observations represent a really large proportion of what is presently known on the natural history of the local lizards. These natural history accounts testify to the quasi-obsessional dedication of the author to the improvement of our knowledge on each species. Another sign of this extreme dedication is the large number of Malaysian and American students and researchers Lee Grismer has trained and is still training on Malaysian herpetology through courses and group field trips, as notably reflected by the multi-authorships of many papers listed in the literature section.

The literature cited section includes 480 pertinent references, the most recent of which date from early 2011 (indeed on page 99 it is stated that the acquisition of data for the book terminated on 3 April 2011, a very useful bit of information that we would encourage all book authors to provide).

Negative points about this remarkable book are few, and to find most of them required a very thorough examination of the

book. The introduction gives a list of the species with scientific and common names, but the latter are not always those used in the main text of the book. We regret the absence of an index in the book. More importantly, we feel there should be an introductory chapter on scale morphology and morphological characters used in identification keys. The keys are very well conceived, but are usable only by persons who already have a very good knowledge of lizard meristic characters. Drawings showing the various scale types, and a brief definition of each type, would have allowed more people to use the keys without needing recourse to other books describing and illustrating these characters. The key to *Draco* spp. (p. 158) largely uses the number of ribs supporting the patagium, but the variation in rib numbers in the key does not reflect the whole variation as indicated in the species accounts (see accounts for *D. formosus*, *D. sumatranus*, and *D. taeniopterus*), which might lead to some misidentifications. The key to scincid genera (p. 545) misses entries to the genera *Dasia* and *Eutropis*. The key to *Sphenomorphus* spp. (couplet 7) states that *S. langkawiensis* has 60–62 paravertebral 'scales' (actually 'scale rows'), while the species account indicates it has 60–72; this mistake has some consequences for the use of the key. In couplet 11 of the same key, there is an alternative between six and five supraoculars, but it does not take into account the variation within *S. scotophilus* (as given in the species account), which also makes the key to *Sphenomorphus* spp. a bit delicate to use. The type locality for *Lygosoma herberti* was copied and pasted from that of the former species account (*L. bowringii*: Hongkong), but is actually 'Nakhon Si Thammarat Mts., peninsular Thailand' (Taylor 1963). As the author states, the book does not intend to provide a detailed taxonomic history for each species; however, for a number of recently described species, natural history data, summarized in the species accounts' natural history sections, were published before their description, and it would have been useful to know under which name they had then been referred to. A number of references cited in the main text are missing in the literature cited section, and in the latter several references are not in alphabetical order. There are some typographic errors in the book, but these certainly do not occur with a frequency that would distract from the reading and consultation of the book. These few negative points are by no means significant in view of the extremely high general quality of the book.

Lee Grismer has to be congratulated to have restricted himself to a limited and manageable taxonomic group over a limited geographical area, and to have provided detailed and comprehensive information about it, as well as identification keys including all species treated and photographs illustrating nearly all of them. There is indeed a dangerous tendency, maybe motivated by commercial reasons imposed by publishers, for guides to cover too many species over a too large geographical area. This tendency is well exemplified by a recent "field guide" that treats about 1000 reptile species and subspecies from eight Southeast Asian countries (Das 2010), including Malaysia and Singapore. This represents so many taxa and so much information to deal with that in the end, to fit in a single book, descriptions had to be extremely brief and not sufficiently diagnostic. Further, no keys were provided, more than a third of the lizards were not illustrated, and much information is missing or erroneous, rendering the guide very superficial and nearly impossible to use in the field for identification purposes (Pauwels and David 2011). Accounts on Malaysian lizards contained so many errors that in the opus discussed here, Grismer had to mention these mistakes in not less than 48 instances throughout the book.

Lee Grismer's latest book is absolutely exceptional by universal standards, and it is without any hesitation that we strongly recommend it to all naturalists, herpetologists, teachers, and conservationists who want to know more about Malaysian lizards and Peninsular Malaysia. The author is currently working on the description of more than 15 new Malaysian lizard species (Gekkonidae and Scincidae), that will be integrated into a next edition of the book; with Malaysian colleagues he is finishing up a book on Malaysian snakes, and he will as well participate in a book on Malaysian amphibians that should appear next year—all books will be of the same style as the one treated here (Grismer, pers. comm., Dec. 2011). Needless to say, we are waiting impatiently.

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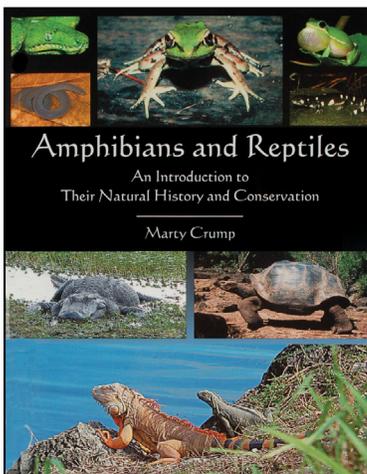
*Herpetological Review*, 2012, 43(1), 157–159.  
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## Amphibians and Reptiles: An Introduction to Their Natural History and Conservation

by Marty Crump. 2011. McDonald & Woodward Publishing Company (www.mwpubco.com). 249 pp. Softcover. US \$29.95. ISBN 978-1-935778-20-2.

### LARRY DAVID WILSON

Instituto Regional de Biodiversidad (IRBio),  
Centro Zamorano de Biodiversidad,  
Escuela Agrícola Panamamericana Zamorano, Honduras  
e-mail: bufodoc@aol.com



Herpetologists know that amphibians and reptiles are endlessly engaging of the mind and spirit, and deserving of our efforts to protect them and their habitats. We do require people, however, who can transition information from herpetological journals to popular outlets. We especially need those who can reach out to children, because as the author notes in her dedication to this book, children “hold the future of amphibians and reptiles in their hands.”

According to information posted on Amazon.com, Marty Crump's latest book is intended for middle-school children and older. It is a revision of the first edition (2002), which became, according to the publisher's website, “the ‘Outstanding Trade Book for Students, K-12’ in 2004 and ‘Selector's Choice,’ an award given jointly by the National Science Teachers Association and the Children's Book Council.”

Dr. Crump is well-known to readers of this journal for her work in tropical herpetology and behavioral ecology, which led her to author such books as *In Search of the Golden Frog* (2000), *Headless Males Make Great Lovers: And Other Unusual Natural Histories* (2007), *Sexy Orchids Make Lousy Lovers: & Other Unusual Relationships* (2009), and *Extinction in Our Times: Global Amphibian Decline* (2009, coauthored with James P. Collins). The book under review here is the second of her children's books; the other is the recently-published *Mysteries of the Komodo Dragon: The Biggest, Deadliest Lizard Gives Up Its Secrets* (2010). She is also the coauthor of one of the herpetology textbooks, now in its fourth edition (2009).

Since this book is pitched at children in grades 6–8, I ran the first paragraph of the first chapter through a test for readability scores, which provided a mean score of 7.7 grade level for five measures, which is appropriate. The book contains 17 chapters, which have an average length of 13.1 pages. This seems like a comfortable read for the intended 12–14-year-olds, especially as the chapters often are divided into sections and provided with numerous illustrations.

I found two features of the book's chapters especially inviting. One is that the illustrations, both black-and-white (135 of them) and color (eight multi-photo plates), have legends that provide the reader with some interesting information about the creature pictured. For example, the legend for figure 7 on page 9 of the first chapter reads: “Komodo dragons, the largest lizards in the world, get their food in three major ways. They ambush active prey, attack sleeping animals, and eat dead animals such as these fish washed up onto the beach.” The photograph, naturally, shows one of these varanids consuming some dead fish.

Among the color photographs is one that is truly “suitable for framing.” It shows Dr. Brady Barr hefting a 4-foot 9-inch *Andrias japonicus*. The question posed by the author is how he can manage to hold onto such a slippery creature. Although Brady is smiling (well, maybe grimacing), he is probably hissing “Quick, take the damn photo!” This photo also appears on the AmphibiaWeb site and must be seen to be believed. The information provided there indicates that the animal (the salamander, not Brady) weighed 86 pounds (39 kg).

Another color photo, of the Titicaca Water Frog (*Telmatobius culeus*), taken by Danté Fenolio, is rather eerie. Crump says, “What a face!” I agree. It is a good choice to place in this book, since this species is judged Critically Endangered by the IUCN, having undergone an 80% population decline in the last 15 years (amphibiaweb.org).

The other feature I found inviting is that words that might prove difficult for middle-schoolers are italicized, indicating they are defined in the four-page glossary. Nonetheless, an indication of their meaning often appears in the text, which helps the reading ease and promotes vocabulary expansion.

Dr. Crump's book also features three appendices. Appendix I lists additional resources (books and websites) on amphibians and reptiles, and their conservation (six pages). Appendix II provides names and addresses for 17 conservation organizations, ranging from the big, broad-scale groups like Conservation