

A recurring theme in the book is the unusual tractability of Morse's wonderful study system, in which it is possible to trace the fitness consequences (in terms of survival and fecundity) of many traits that vary quantifiably from individual to individual. This, coupled with the level of detail achieved in many of the descriptions of *Misumena*'s natural history, will make this volume a valuable stimulus to any reader who has an interest in invertebrate behavior and evolution. Chapter 6, which sketches a fascinating series of experiments that explore developmental changes in the significance of learned and innate foraging behavior, is a particular highlight.

If there is one fault with the book, it is that some of the frequent, laudable attempts to set studies of *Misumena* into the context of the broader literature feel rather outdated, with references to "recent" developments and debates that focus on publications from the 1980s. This is not to say that the volume fails to contribute to our understanding of the research questions that are currently in vogue. As a beautifully detailed account of a fascinating and scientifically valuable study organism, its value is clear.

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#### A FIELD GUIDE TO THE AMPHIBIANS AND REPTILES OF BALI.

By J Lindley McKay. Melbourne (Florida): Krieger Publishing. \$39.50. vii + 138 p; ill.; index. ISBN: 1-57524-190-0. 2006.

With more than 17,000 islands and the most complex geological history anywhere on the planet, Indonesia possesses a startlingly diverse and highly endemic herpetofauna. As the land of the Komodo Dragon, and home to the sharpest faunal boundary on the planet (Wallace's Line), the islands constituting Indonesia represent one of the world's true superpowers of biodiversity and the origin of many of its most spectacular amphibians and reptiles. Given these facts, plus the simple truth that Bali is a popular vacation spot, a good field guide of the amphibians and reptiles of this island has been badly needed. Bali is an ecotourism mecca. Its amphibians and reptiles ought to be readily accessible to the many thousands of travelers who visit annually.

Thus, it was with some enthusiasm that I heard of the publication of J Lindley McKay's recent guide. This is a handsome, large format, hard-bound book, with a colorful photograph of a well-fed Paradise Flying Snake, *Chrysopelea paradisi*, on the cover. At a first glance, the contents are appropriate, with a general introduction, an informative identification section, instructions on how to use dichotomous keys, an introduction to amphibian

and reptile habitats (entitled The Environment of Bali), a brief overview of the total herpetological fauna of Bali, a section on traditional uses of amphibians and reptiles (e.g., food and medicine), a discussion on first aid for snakebites, a section on keys (for reptiles, frogs and toads, and tadpoles), and individual species accounts. A particularly welcome addition is the inclusion of a key to the species in Bahasa (Indonesian). All good, so far.

This work has a number of strengths, including simple but effective illustrations, decent keys, reasonable quality habitat photographs, an abundance of color images of most species in life, and presentation of general information on ecology of included species. The author clearly has spent a reasonable amount of his own time on Bali, has personally visited most habitat types, and has encountered many (hopefully most) of the included species in life.

McKay's volume also has a number of shortcomings that will no doubt infuriate field biologists, herpetologists, and systematists who may attempt to use this book for anything more than a semi-popular field guide. Chief among its problems is the superficiality of the included information (species accounts are *very* basic) and a near complete lack of documentation as to the source of included data. Most basic biological information (e.g., body size, scale counts, coloration, geographical distribution, elevational range, diet, and habitat, among others) is presented without reference to its origin and so one wonders if these are data collected by McKay or possibly reproduced from other publications, based on animals in other parts of their range. This, plus the fact that so many of the images presented in the book (including the one on the cover) are actually not photographs of animals from Bali (5% of frogs; 100% of turtles; 30% of lizards; and 61% of snakes), suggest that readers should treat much of the reported information with a degree of caution. Finally, although Indonesia's herpetofauna is constantly being revised, the taxonomic treatment of many species is overly simplistic, confusing and, in certain instances, incorrect. In some cases, new revisionary work clearly has been considered and included (e.g., species of the lizard genus *Eutropis* and snakes of the genus *Coelognathus*) and in others, widely accepted taxonomic work (e.g., frogs of the genus *Fejervarya*) has been ignored. There is no mention of generally recognized subspecies, even for widespread taxa with subspecies restricted to Bali and Java (a few of which are already recognized by some workers as full species). Finally, although this may seem trivial, the large format of this volume is more akin to a coffee-table book and not a "work-

ing" field guide that can be easily slipped into a back pocket for a day of hiking.

In conclusion, although this is a welcome contribution to the literature (which I will personally use and recommend to others), I suspect its value will be limited to use by general readers, ecotourists, and perhaps students. If any of these parties convert to a life dedicated to herpetology in Southeast Asia, well, then, McKay's book will have served its purpose admirably.

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#### HOMALOPSID SNAKES: EVOLUTION IN THE MUD.

By John C Murphy. *Malabar (Florida): Krieger Publishing.* \$68.50. viii + 249 p; ill.; index to scientific names and higher categories. ISBN: 978-1-57524-259-0. 2007.

Many biologists choose their profession based on a lifelong love of nature's rich diversity, yet paradoxically, most biological research focuses on only a tiny fraction of that diversity. A few "model organisms" attract detailed study, and the rest are largely neglected by all except for a few passionate enthusiasts. John Murphy and his colleagues are just such people, and have devoted several years to exploring the biology of a poorly-known lineage of semiaquatic snakes. The reasons for the low scientific profile of homalopsid snakes are not difficult to identify: investigators must slog through the muddy margins of Southeast Asian ponds and rivers to find these drab snakes lurking beneath the murky water. Researchers are likely to be severely bitten if they attempt to capture the animal. Nonetheless, the results emerging from fieldwork on homalopsids hint at many fascinating biological stories: unexpectedly high diversity, remarkable convergence among distantly-related taxa, and some truly unique phenomena. For example, a minority of homalopsids feed on crustaceans—an unusual prey type for snakes, and one able to autotomize appendages such as legs and claws if attacked. Thus, these homalopsids have the distinction of being the only snakes that routinely dismember their prey before consuming it. Similarly, the massive abundances and "fast" life histories of these snakes support a massive (but perhaps sustainable) offtake of snakes from the wild, with an estimated 3.8 million snakes taken each year from one lake in Cambodia alone.

Murphy has produced a detailed book on these intriguing serpents, and one that will be the benchmark for this group for many years. It is unlikely to attract casual readers. The author provides a summary of homalopsid biology rather

than setting any new research directions. Nonetheless, the volume succeeds admirably in its purpose, and may well stimulate other biologists to trudge across the fetid mudflats of tropical Asia and Australia in search of these enigmatic reptiles.

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#### HERPETOLOGICAL HISTORY OF THE ZOO AND AQUARIUM WORLD.

By James B Murphy. *Malabar (Florida): Krieger Publishing.* \$79.50. xvi + 327 p; ill.; no index. ISBN: 978-1-57524-285-9. 2007.

#### THE ATLAS OF BIRD MIGRATION: TRACING THE GREAT JOURNEYS OF THE WORLD'S BIRDS.

Edited by Jonathan Elphick; Foreword by Thomas E Lovejoy. *Buffalo (New York): Firefly Books.* \$35.00. 176 p; ill.; index. ISBN: 1-55407-248-4. 2007.

As the title would suggest, most of this book contains maps showing the seasonal distribution of selected species of migratory birds along with circular 12-month calendar diagrams that indicate the timing of spring and fall migration and the breeding season. Each circular diagram is color coded to the same color used in the map data for a species so that confusion is avoided when more than one species is considered on a single map. Most of the maps show the flight trajectories of fall migration and only rarely are spring routes pictured. This eliminates some of the clutter that would result if both spring and fall pathways were pictured on the same map, but some readers will certainly wonder about the geography of return movements in the spring. A combination of color photographs and paintings by a number of artists accompany the maps for each species along with basic facts: common and scientific name, wing span, length of migratory journey, and a silhouette of the species flying against a grid that indicates length from tip of bill to tip of tail.

The atlas is separated into sections. The first, *Birds on the Move*, contributed by Chris Mead, includes brief one or two page discussions of topics such as the genetics and evolution of migration, general geographical patterns, timing, flight strategies and techniques, altitude, physiological preparation, ecological barriers, weather and climate, staging and stopover areas, orientation and navigation, a very brief survey of the techniques used to study migration, and the conservation of migratory birds. No citations to the pertinent literature are included in this or any other section of the atlas.

The next four sections deal with North American migrants (28 pages written by Bette and