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### EDITORIAL—A REVIVED FOCUS ON THE PRAYING MANTISES (INSECTA: MANTODEA)

JULIO RIVERA<sup>1,2</sup> & GAVIN J. SVENSON<sup>3</sup>

<sup>1</sup> Department of Ecology and Evolutionary Biology, University of Toronto. Correspondence: Royal Ontario Museum, 100 Queen's Park, Toronto, ON, M5S2C6, Canada. E-mail: [julior@rom.on.ca](mailto:julior@rom.on.ca)

<sup>2</sup> Museo de Entomología Klaus Raven Buller, Universidad Nacional Agraria La Molina, Lima, Peru.

<sup>3</sup> Department of Invertebrate Zoology, Cleveland Museum of Natural History, 1 Wade Oval Drive, Cleveland, OH 44106 USA. E-mail: [gsvenson@cmnh.org](mailto:gsvenson@cmnh.org)

With approximately 2400 described species distributed worldwide (Ehrmann, 2002), praying mantises (Mantodea) exhibit extensive variation in morphological adaptations and life history strategies, typically in connection to their strict predatory habits. Praying mantis diversity is frequently under-appreciated, mostly because of their sedentary and highly cryptic lifestyle, often resorting to various forms of mimicry and mimesis, resembling sticks, flowers, tree bark, bird droppings, pebbles, moss, lichen, and green and dead leaves. Because of these attributes, they are difficult to collect and observe in the field. Certain aspects of praying mantis ecology, behavior and physiology have historically received more attention than others, though most studies focus on a handful of species from temperate regions (see Prete *et al.*, 1999). In contrast, tropical regions (which hold the bulk of Mantodea biodiversity) have received limited attention by researchers, that attention often punctuated. Their apparent lack of economic importance, rarity in collections and the ongoing “taxonomic impediment”, have all conspired to impede taxonomic and evolutionary studies. The consequences of these deficiencies are far reaching. For example, the current dearth of detailed taxonomic treatments and identification keys prevent the accurate assessment of regional faunas (Rivera, 2010). Further, the lack of a solid taxonomic foundation precludes the formal documentation of relevant aspects of natural history, a discipline that has also faced a steady decline since the early 20<sup>th</sup> Century (Hampton & Wheeler, 2012), but nonetheless is fundamental for fostering scientific inquiry and hypotheses formulation. The diversity of ecological strategies and adaptations of mantises, their role as predators, and their well-known (but little understood) cannibalistic sexual behaviors, make of these charismatic insects also outstanding model organisms to explore broader questions in ecology and evolutionary biology.

Praying mantis taxonomy and systematics are experiencing a renewed interest as a new generation of young scientists is joining the small but dedicated community of established specialists. This special issue of Zootaxa, devoted to praying mantises, represents the current on-going efforts of leading researchers towards improving the taxonomic and faunistic knowledge of these insects across the globe. With the exception of the Nearctic region, this volume encompasses studies of representative taxa from all other major zoogeographic regions.

The volume begins with a thorough contribution by Roger Roy on historical nomenclature and high-level classification of Mantodea, a prime reference on these subject matters. This contribution includes a checklist of suprageneric names, which will be invaluable for making nomenclatural adjustments as the phylogenetic system of Mantodea becomes better resolved.

Two endemic Australian mantid genera are treated in this volume. Gregory Holwell presents a preliminary treatment of the bark mantis genus *Ciulfina*. Given their conservative external morphology, the author focuses almost exclusively on male genitalia. He describes four new species from a relatively small geographical area and also develops a methodological framework for future studies in this highly diversified lineage. Similarly, Graham Millidge presents a revision of *Rhodomantis*, a conspicuous and widespread Australian lineage, describing seven new species.

The Palearctic region is represented by two studies with a conservation focus. The study on *Apteromantis* by Roberto Battiston and collaborators uses a broad approach to clarify the taxonomic status of members of the genus, particularly that of *A. aptera*—an Iberian endemic and the only praying mantis protected by international law.

Frank Wieland and collaborators present a thorough historical review of the mantis fauna of the Canary Islands. They clarify the taxonomic status, diversity and distribution of archipelagic species from this well-known European endemism hotspot. This study, along with that on *Apteromantis*, aim to inform conservation biologists and policy makers about the identity of praying mantis populations currently under direct and indirect conservation efforts.

The Indomalaysian region is home to an especially diverse praying mantis fauna. This volume includes three studies focused on taxa from Southeast Asia—a truly biodiverse hotspot for Mantodea. Gavin Svenson treats all three species of *Majengella* after recognizing that the genus was incorrectly included within the bark mantis lineage Liturgusidae, and that its junior synonym had been described within the family it truly belongs, the Hymenopodidae. Christian Schwarz and Martin Helmkampf describe a new and bizarre species of *Mythomantis*, a little known genus from Southeast Asia. This study highlights the challenge of revealing the incredible praying mantis diversity of this region. Along similar lines, Christian Schwarz and Oliver Konopik present a checklist of the Mantodea of Borneo, which represents an important starting point for future studies of mantises from this highly diverse but neglected region.

The mantis fauna of the Ethiopian region is arguably among the best known, although several regions remain little explored and/or inaccessible. Francesco Lombardo and collaborators present a revision of *Otomantis*, a widespread genus in central, eastern and southern Africa, including Madagascar. Their revision includes the description of five new species and serves as an example of the diversity that remains to be discovered in a relatively well-studied region.

Finally, the Neotropical region is represented by three contributions. Antonio Agudelo presents the description of a new genus and species of the rather common but little known Mantoididae—a primitive lineage of wasp-mimicking praying mantises. This is the first new genus described in the family since *Mantoida* was created in 1838, thus highlighting hidden mantis diversity in the Amazon. The second contribution is a revision of the genus *Miobantia* (a lineage endemic to the Brazilian Atlantic Forest) by Marcus Scherrer, which includes the description of four new species. This is the first thespid genus ever revised, establishing an important methodological framework for revisionary studies of other genera in this highly diverse and taxonomically challenging lineage. Finally, a brief study of *Thespoides bolivari* by Julio Rivera reveals the identity and taxonomic status of this apparently “elusive” and obscure taxon, not seen since its original description by Lucien Chopard in 1916.

This special issue is a celebration of a renewed interest in the study of the Mantodea. Much work remains to be done, but we anticipate an even greater output of research on their taxonomy, ecology, behavior, and physiology in the coming years.

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