

**Description of new characterized specie
Microthespis oderai (Rivetinae, Mantidae
Mantodea) from Sindh Province of Pakistan**

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Abstract:

*This present study presents description of taxonomic studies of newly found praying mantids (Mantodea) specie from the Odera Lal, Matiari District of Sindh region, therefore the identified specie was named as *Microthespis oderai* after its finding place. The new specie is illustrated with their copulatory apparatus and general habitat, and compared with their closest species. Additionally, a key to the males of the genus *Microthespis* is provided.*

Key words: *Microthespis oderai*, Mantodea, Mantidae, Matiari, taxonomic study.

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INTRODUCTION

The mantises or Mantodea is usually regarded as a “minor” order of insects consisting of over 2,400 described species and about 430 genera distributed worldwide (Ehrmann 2002; Otte & Spearman 2005; Otte & Spearman 2012), globally distributed in warm, tropical, subtropical and temperate regions (Hurd 1999; Rivera 2010). Praying mantises are predators, recognized by their raptorial anterior legs bended against the prothorax while during resting time (Essig 1942). In addition, this taxon has many other remarkable features such as, their natural camouflage, with species imitating the colors and shapes of leaves, twigs, grass, and flowers (Grimaldi & Engel 2005). Mantids were first recorded in the fossil around 35 million years before and related to cockroaches and, more distantly, the grasshoppers and crickets. Despite the general obsession and interest that the praying mantis has inspired throughout history (Prete & Wolfe 1992), Mantodea lack under to be researched among insect taxa. Although several features, of their biology, physiology and behavior have historically received more attention; their studied like taxonomy and systematic have been seldom and inadequately studied (Prete *et al.* 1999). In Pakistan, especially the Sindh Province, the historical literature, consisted of fair and diverse parameters has been done on praying mantids (Mantodea) by several researchers (Khokhar & Soomro, 2009; Soomro, *et al.*, 2012; 2013; Soomro M.H, *et al* 1999, Soomro, *et al* 1998; 2000 a; 2000 b; 2001; 2002, Wagan *et al.*, 1995).

During our survey under the present project of the biodiversity and biogeography of Praying Mantids (Mantodea) from Sindh Province, we recorded and characterized a remarkable new specie *Microthespis oderai* of Mantodea.

MATERIALS AND METHODS

Material Examined: 1 male was recorded at District Matiari of Sindh Province, Post office, Odero Lal station, 37-XI-2013.

Measurements (mm): Total Length of body TL: 23.55, Length of pronotum LP: 05.00, Length of tegmina LT: 11.00, Length of fore coxa LFC: 04.30, Length of fore femur LFF: 04.50, Length of fore tibia LFT: 03.50.

Etymology: This new recognized specie was named after the place Odero Lal station famous for the saint called Odero Lal (also Sheikh Tahir) situated in Sindh Province of Pakistan.

RESULTS

The study on description of newly characterized *Microthespis oderai* (Rivetinae, Mantidae Mantodea) specie was recorded in Matiari District, Sindh Province of Pakistan.

***Microthespis oderai*, new described species:**

Diagnosis: This new specie (Fig. 1) is related to former *Microthespis dmitrievi* Werner, and *M. sindhensis* which was recognized by Soomro *et al.*, 2001 with exception in the following characters, body size small, wings veinulated and light brown, prosternum neither heart shaped nor have middle and large black spot, copulatory apparatus are different in all aspects.

Description of male holotype:

This new male specie was recorded for the first time from Odero Lal, Talka of district Matiari, Sindh-Pakistan. It is characterized by having small but broad prosternum slightly behind the head, and is small slender, head is broader, eyes

prominent and rounded shaped, its fore legs densely armed with spines, tegmina looked veinulated and do not cover the apex of the abdomen, cerci long and somewhat curved, supra anal plate is somewhat trapezoidal with defined keel. Copulatory apparatus of n. sp. (Fig. 2. a, b) right phallomere is transverse from apodema, its margins provided with minute hairs like projections, its anterior end is elongated and its median margins denticulated with small spine like projections. While ventral phallomere, as long as broader at the apex the short distal process is slightly curved and pointed at the apex.

Coloration: Light brown; all the large spines of the front femora and tibia also brown apically; prosternum without heart shaped black spot and is brown small and slender; coastal margin of tegmina unicoloratious; anal membrane blackish with pale margin; hind wing brown.

FIGURE LEGEND



Fig. 1. *Microthespis oderai*, n. sp. male holotype

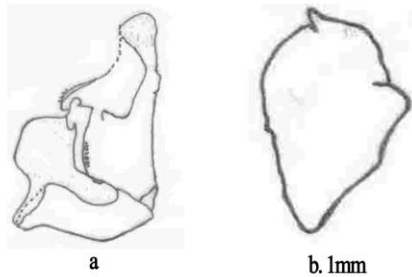


Fig. 2. a, b. Copulatory apparatus of *Microthespis oderai* n. sp. a, Right phallomere, ventral view, b, Ventral phallomere, dorsal view.

DISCUSSION

The present study was conducted throughout the Sindh Province of Pakistan and description of newly characterized *Microthespis oderai* (Rivetinae, Mantidae Mantodea) specie found in Matiari District was detailed first time. Praying mantis taxonomy and systematic are enhancing a great interest among young scientists to be dedicated in established specialist's community of the world. 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 leafs (Rivera & Svenson 2014). Round about 2,400 Mantodea species have been recognized previously, with 496 from the Neotropical region, and 273 from Brazil (Ehrmann 2002; Ehrmann & Koçak 2009; Terra & Agudelo 2012). Increasing the science of taxonomy of mantises, in our present study we have also have recognized and characterized a new species of Mantidae family from Sindh Province of Pakistan. The study will provide

fundamental base for the young scientists to evaluate more precisely at global level.

CONCLUSION

The present study concluded newly found Mantodea specie and was characterized from Matiari District of Sindh Province of Pakistan.

Acknowledgments

We extend our thanks to the lab assistants for their excellent cooperation throughout this study. We also pay our warm thanks to Dr. Syed Rizwan Shah for his technical review of the manuscript.

Conflict of interest declaration: The authors have declared that no conflicts of interests exist.

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