International Journal of Entomology Research
www.entomologyjournals.com
E-ISSN: 2455-4758
Received: 16-09-2026, Accepted: 16-10-2026, Published: 31-10-2026
Volume 11, Issue 4, 2026, Page No. 196-198

Praying mantis fauna of Tilari conservation reserve, Sindhudurg, Maharashtra, India

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DOI: https://doi.org/10.66856/ijer.2026.11.4.11388

Abstract
The present study was conducted during year 2024-2025 with objective to explore verity of different species of Praying mantis (Insecta: Mantodea) from Tilari Conservation Reserve og Sindhudurg district of Maharashtra state, India. Current study recorded various types of Praying Mantis from study area. The data was gathered using various methods. Total 09 species belonging to 08 genera and 05 families were recorded from selected study area.

Keywords: Praying Mantis, tilari, conservation, western ghats, species

Introduction

Class Insecta is a largest class of kingdom Animalia under the phylum Arthropoda. Insects typically characterized by six appendages. The Praying Mantis typically known as Praying Mantis because of their distinctive posture of rising frontal legs in prayer like position. Praying Mantises are occurring in both temperate and tropical ecosystem and also play crucial role in ecosystem as a predatory insect. Praying Mantis feeds on moths, small butterflies, grasshoppers, aphids and they exhibit remarkable adaptation for camouflage and mimicry [1]. Praying Mantises are diurnal and light attracted species [2]. They are fragile fliers and occur on herbs, shrubs and trees [3]. Praying Mantis can often be observed patiently waiting hours for their pray and also they rotate their head up to 180^0 degree [1]. There are 2300 species of Praying Mantis distributed under 434 genera in worldwide [4]. In India there are 162 species of Praying Mantis distributed under 68 genera and 06 families [5]. Recently, there is huge interest in taxonomic research concerning Praying Mantis population in India, leading to identification of some interesting texa from India [6-9]. Maharashtra state represents 52 species distributed under 06 genera and 07 families [10]. Also, recordrd 07 light attracted species of Praying mantises from Dodamarg tehsil of Sindhudurg district [14]. The main aim of this study is to contribute the knowledge of biodiversity of Praying Mantises from Tilari Conservation Reserve of Dodamarg tehsil, Sindhudurg district of Maharashtra, India.

Study Area

Study was conducted at the Tilari Conservation Reserve is lies between 15^045' N to 16^03' N latitude and 74^01' E to 74^027' E longitude. A nature discovery set in the heart of Sindhudurg district. On 23rd June, 2020 the Maharashtra government declared the Tilari forest area in Dodamarg tehsil and Dodamarg Sawantwadi forest range is a conservation reserve area. The total area of these forest is 29.5359 square kilometer and this is 13th such a reserve area in Western Ghats. (Fig.1)

Tilari has become the 7th designed corridor in Maharashtra state to be recognized as 'Conservation Reserve'. Tilari connects the Radhanagari and Amboli (Maharashtra) wildlife corridor in north, Bhimgadh (Karnataka) and Mhadai (Goa) wildlife sanctuary in south. Tilari is the name of river and valley which Tilari River flows. Tilari area having dense green forest and its home of various types of birds and mammals. The existence of ancient evergreen forest patches including 'Myristica swamp' has been documented in Tilari [11]. The flora within the corridor predominantly consists of tropical moist deciduous and tropical semi-evergreen forest [12] and having average rainfall approximately 3000-4000 mm per year. This patch of 38 km wildlife corridor is migratory rout of Bengal Tiger, Asian Elephants and leopards.

Material and Methods

The data collection was done in year 2024-2025 for few months of the year using visual search, sweeping net method, also use the light trap method in surrounding outside forest area. Some specimen occurs near street light sources. Subsequent to observation and photography were conducted in specific area of study field. The specimen photographed by Realme 11 pro mobile camera and sometimes using apexal 100 mm mobile macro lens. Initial identification of Praying Mantis is done from various literatures [13, 9].

Result

Three different localities wise Praying Mantis species distributed in Tilari forest area and surrounding villages nearby Tilari Conservation. (Table no. 1)

Forest area: Compare to other areas of forest vegetation, the major forest region is very dense and full of mixed vegetation. The majority of the species were recorded from this research location. there are 04 species namely as *Hierodula sp., Hierodula unimaculata, Gongulus gongylodes, Humbertiella indica.*

Tervan Medhe pickup weir area: Tervan medhe pickup weir commonly known as mini dam situated exact near Tilari Conservation Reserve forest. 03 species of Praying mantises recorded from this surrounding area, namely *Ephestiasula pictipes, Creobroter apicalis* found near street light source and *Humbertiella indica* spotted on compound wall.

Light attracted species: Some species spotted near artificial light source like street light and also we placed

light trap in privet property which is exact nearby Tilari Conservation Reserve. It is marked by rich vegetation and from this place recorded 03 different species namely *Tropidomantis (Eomantis) guttatipennis, Tenodera fasciata, Statelia maculatta* and also spotted *Hierodula unimaculata, Gongulus gongylodes*, and *Ephestiasula pictipes* total 06 species were spotted from this location.

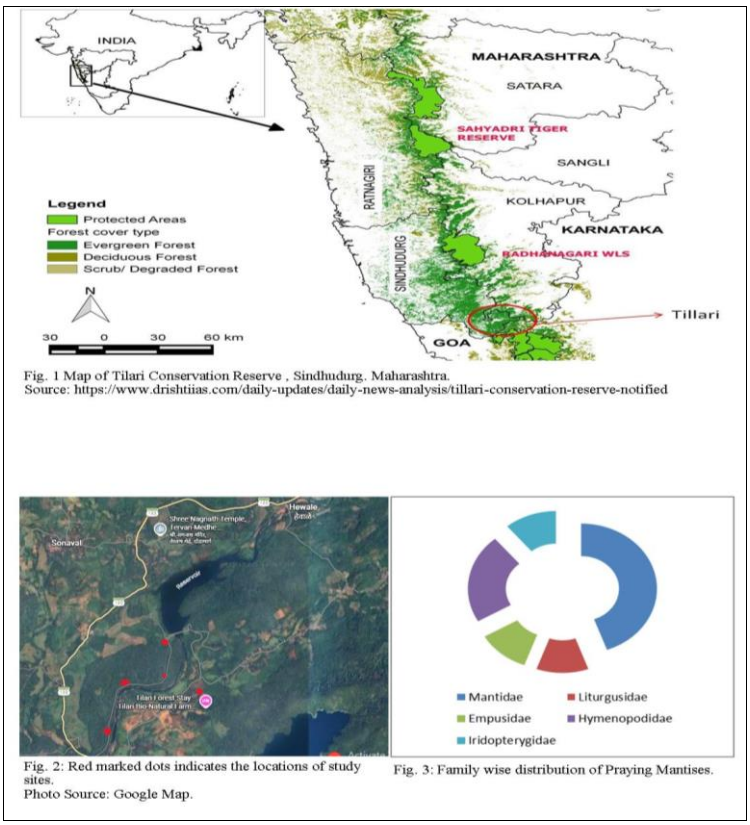


Fig. 1 Map of Tilari Conservation Reserve , Sindhudurg. Maharashtra.
Source: https://www.drishtiias.com/daily-updates/daily-news-analysis/tillari-conservation-reserve-notified

Fig. 2: Red marked dots indicates the locations of study sites.
Photo Source: Google Map.

Fig. 3: Family wise distribution of Praying Mantises.

Table 1: Scientific checklist (Taxonomic groups up to families) from Tilari Conservation Reserve, Sindhudurg

Sr. No.	Name of species	Genus	Sub-Family	Family
01.	*Hierodula sp.*	*Hierodula* Burmeister, 1838	Hierodulinae	Mantidae
02.	*Hierodula unimaculata*	*Hierodula* Burmeister, 1838	Hierodulinae	Mantidae
03.	*Statelia maculatta*	*Statilia* Stal, 1877	Mantinae	Mantidae
04.	*Tenodera fasciata*	*Tenodera* Burmeister, 1838	Mantinae	Mantidae
05.	*Humbertiella indica*	*Humbertiella* Saussure, 1869	Liturgusinae	Liturgusidae
06.	*Gongulus gongylodes*	*Gongylus* Thunberg, 1815	Empusinae	Empusidae
07.	*Creobroter apicalis*	*Creobroter* Audinet-Serville, 1839	Hymenopodinae	Hymenopodidae
08.	*Ephestiasula pictipes*	*Ephestiasula* Giglio-Tos, 1915	Acromantinae	Hymenopodidae
09.	*Tropidomantis (Eomantis) guttatipennis*	*Tropidomantis* Stal, 1877	Tropidomantinae	Iridopterygidae
Total	09	08	07	05

Discussion

A total species of Praying Mantis distributed in 09 genera under 08 subfamilies and 05 families identified by different locations of Tilari Comservation Reserve forest. The family Mantidae belongs to 04 species namely as *Hierodula sp., Hierodula unimaculata, Statelia maculatta, Tenodera fasciata.* The family Hymenopodidae belongs to 02 species namely as *Creobroter apicalis, Ephestiasula pictipes*, Family Liturgusidae, Empusidae, Iridopterygidae belongs to *Humbertiella indica, Gongulus gongylodes, Tropidomantis (Eomantis) guttatipennis* species respectively. The present investigation states that the Mantidae family dominant in this region (Fig. 3)

Summary

The current study indicates that total 09 species of praying Mantises belonging to 08 genera, 07 subfamilies and 05 families recorded from different localities of Tilari Conservation Reserve of Dodamarg tehsil (Fig. 2). The following species *Hierodula sp., Hierodula unimaculata,*

Statelia maculatta, *Gongulus gongylodes*, was generally occurring while, *Tropidomantis (Eomantis) guttatipennis*, *Ephestiasula pictipes* were uncommon in Tilari forest. The *Hierodula sp.* Seems doubtful and its identification need strongly.

Conclusion

During research period (2024-2025), the diversity of Praying Mantis in study area is rich due to high diversity of insects available as a food for Praying Mantis like predatory insects [13]. The present study may be useful because, in Maharashtra state, Praying Mantis fauna fairly well developed, none the less, deep study on Praying Mantises is necessary to identify population of mantises in Dodamarg Tehsil as well as Sindhudurg district.

Acknowledgement

The authors are grateful to Dr. S. V. More, Head, Department of Zoology, ADK Science College, Dodamarg; for expert opinion, identification and suggestion. Also thankful to Mr. Sanjay J. Sawant, Hon. Wildlife warden forest department, Sindhudurg and Chairman Vanashree foundation, Sindhudurg and Mr. Sanjay S. Natekar, Dodamarg for his support and providing facilities during research work.

Reference

1. Sureshan PM, Sambath S. Mantid Insecta: Mantodea Fauna of Old Bihar (Bihar and Jharkhand) with some new records for the State. Zoological Survey of India,2009:109(3):11-26.
2. Dutta W, Sur D. Praying Mantis: A threatened group of insect from Purulia, West Bengal. Biodiversity Conservation: Fundamentals and Applications, 2012, 262-263.
3. Sathe TV, Patil VJ. Report on nine new species of mantids (Insecta: Mantodea) and their insect pest predatory potential from agroecosystem of Kolhapur region. Journal of Entomology and Zoology Studies,2014:2(5):304-307.
4. Ehrmann R. Mantodea: Gottesanbeterinnen der Welt. Natur and Tier-Verlag, Munster, Germany (Praying Mantids of the World in German, 2002, 519.
5. Mukherjee TK, Hazra AK, Ghosh AK. The Mantid fauna of India Insecta: Mantodea. Oriental insecta,1995:29:185-358.
6. Ghate HV, Ranade S. Biodiversity of Mantids Insecta Mantodea, in Pune (Western Ghats) with notes on other regions of Maharashtra. Journal of Bombay Natural History Society,2002:99(2):348-352.
7. Sureshan PM, Ghate HV, Radhakrishna C. A (Insecta: mantodea) conservation area series 20, Fauna of Pench National Park, Maharashtra, Zoological Survey of India, Kolkata, 2004, 227-232.
8. Jadhav SS, Sureshan PM, Ghate HV. Addition to the mantid fauna (Insecta: Mantodea) of Pench National Park, Maharashtra, India. Zoos print Journal,2006:21(5):2261-2262.
9. Vyjayandi MC. Mantid fauna of Kerala, India. Zoological Survey of India,2007:267:1-169.
10. Ghate HV, Jadhav SS, Sharma RM. Insecta: Mantodea. Fauna of Maharashtra, State Fauna Series. Zoological Survey of India,2012:20(2):441-445.
11. Shreedharan G, Indulkar M. New distributional record of the northern most Myristica swamp from the Western Ghats of Maharashtra. Current Science,2018:115(8):1434-1436
12. Champion HG, Seth SK. A Revised survey of the Forest Types of India, 1968.
13. More SV, Prashant MS. Diversity of praying mantids from Tilari forest, Chandgad, Kolhapur district of Maharashtra India. International Journal of Entomology Research,2018:3(2):57-64.
14. Sinari AS, Kamble NP. Survey of Light-Attracted Praying Mantis Species in Dodamarg Tehsil, Sindhudurg District, Western Ghats, Maharashtra. Journal of Entomology and Zoology Studies,2026:14(1):149-151.