

TYPE SPECIMENS OF MANTODEA IN THE ZOOLOGICAL SURVEY OF INDIA COLLECTIONS, CALCUTTA, INDIA

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ABSTRACT. - The type status of 12 species of Mantodea from India and Australia in the collections of the Zoological Survey of India is confirmed or established.

INTRODUCTION

A number of species of Mantodea from various parts of the world including India and Australia were described by Prof J. Wood-Mason who, for a number of years, was the Deputy Superintendent of the Indian Museum, Calcutta. The type status of 12 of these species is here confirmed or established. These types are held in the National Collections of the Zoological Survey of India, Calcutta (ZSIC). The type specimens have been labelled with the appropriate type labels.

TAXONOMY

Gimantis authaemon Wood-Mason, 1882

Gimantis authaemon Wood-Mason, 1882: 26

Wood-Mason described this species in the genus *Gonypeta* from a single female collected from "Minthantoung, on the Tenasserim river, near Mergui, by Dr J. Anderson on December 22nd, 1882". This species subsequently became the type species for the genus *Gimantis* erected by Giglio-Tos (1915).

A single female specimen in the ZSIC bears precisely the above data and corresponds exactly with Wood-Mason's description and measurements. It is hereby recognised as the holotype of *Gonypeta authaemon*. It bears the ZSIC Registration No. 2046/2 and is stored in spirit.

Mesopteryx robusta Wood-Mason, 1882

Mesopteryx robusta Wood-Mason, 1882:36

This species was described from a single female "obtained probably by myself on South Andaman Island in 1872, but possibly by one of the Museum collectors under Captain J. Butler

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in the Naga Hills, Assam". The data as quoted above is written on the label of a single female specimen in the ZSIC collection. The description and measurements correspond exactly with those given by Wood-Mason. This specimen is hereby recognised as the holotype of *Mesopteryx robusta* Wood-Mason. It bears the ZSIC Registration No.44/1 and is stored in spirit.

***Oxyophthalma engaea* (Wood-Mason, 1889)**

Oxyophthalma engaea Wood-Mason, 1889a:37

This species was originally described as *Oxyophthalmus engaeus* by Wood-Mason from three males, two females and four nymphs from at least three localities in the Nilgiri Mountains, South India, all collected by G.F. Hampson. The three males were given the Registration No. 9370/6 and of these "the broken specimen" was used for the drawing of the head of the species. These nine specimens have been located in the ZSIC spirit collection and include three males, one of which is broken, and which bear the above registration number. The broken male is hereby confirmed as the holotype and the other two males, and the two females (one with Registration No. 9320/6 from the southern slopes of the Nilgiri Mountains at 3-6000 feet altitude, the other with Registration No. 9328/6 from the northern slopes of the Nilgiri Mountains at 3500 feet) and the four juveniles are confirmed as paratypes and are labelled accordingly.

The genus *Oxyophthalmus* was described by Saussure in 1861 but was subsequently found to be preoccupied. Although renamed *Oxyophthalma* by Saussure in 1869, *Oxyophthalmus* continued to be used until Giglio-Tos (1927) when Wood-Mason's species name was also corrected to *engaea*.

***Toxoderopsis spinigera* Westwood & Wood-Mason, 1889**

Toxoderopsis spinigera Westwood & Wood-Mason, in Wood-Mason, 1889b: 319

The description of this species was based on a female specimen from Bombay. A single female specimen in the ZSIC bearing this data and also a label "T. *spinigera* Westw. & W.M. and Registration No. 10044/H5 has been located but lacks any type label. It corresponds exactly with the original description and measurements and is hereby accepted as the holotype. The specimen is missing both antennae, the right fore tibia, the left middle leg and the right hind tarsus.

***Toxoderopsis taurus* Wood-Mason, 1889**

Toxoderopsis taurus Wood-Mason 1889b:320

This species was described from a male from Sind and a female from Khurda (Orissa) collected by W.C. Taylor but no holotype was designated. These specimens have been located in the ZSIC and correspond exactly with the original description and measurements. The female bears a "Type" label and Registration No. 9534/6 and is hereby designated as the lectotype and the male (Registration No. 10045/H5) is accepted as a paralectotype. The lectotype is missing the left antenna and the right middle leg and the abdomen is broken. The paralectotype is missing the right antenna, the left forewing, the left middle leg and the left hind leg.

***Euthyphleps rectivenis* Wood-Mason, 1889**

Euthyphleps rectivenis Wood-Mason, 1889b: 317

This species was described from a female collected from Kulu, Kangra in the N.W. Himalayas at 3600 ft. by A.G. Young. A single female located in the ZSIC bears these data and also the

Registration No. 6557/1. It agrees satisfactorily with Wood-Mason's description and measurements with the exception of the total length of the specimen which is 86.5 mm and not 70 mm as given. It is hereby accepted as the holotype. The specimen is missing both antennae, the left forewing, the left hind tibia, and the right hind leg.

***Hierodula pustulifera* Wood-Mason, 1878**

Hierodula pustulifera Wood-Mason, 1878:583

This species was described from "two alcoholic specimens", both female, from "One of the islands in the Torres Straits" and obtained by the Rev. MacFarlane. However, no holotype was designated. Four specimens, all females, have been located in the ZSIC spirit collection. One specimen, bearing the Registration No. 4287/4, is hereby designated the lectotype. The fore legs and part of a middle leg are separated from the body but it conforms almost exactly with the original description and measurements except that the total length is 80 mm and not 85 mm. As there is nothing to indicate which of the three remaining specimens is Wood-Mason's second specimen all three have been labelled "? paralectotype". A further dried female specimen in the British Museum (Natural History) is cited by Wood-Mason after the description but he specifically excluded it from the type series and therefore it has no type status.

***Hierodula sternosticta* Wood-Mason, 1882**

Hierodula sternosticta Wood-Mason, 1882: 31

This species was described from "Nine specimens, 3 adult females, and 3 nymphs of each sex" from "Near Trinity Bay, Australia (C. French)." Two adult females and the six juveniles have been located in the ZSIC alcohol collection and one adult female in the dry collection. No holotype was designated but an adult female in alcohol bearing the Registration No. 10346/H5 corresponds almost exactly with the original description and measurements and is hereby designated the lectotype. The other two adult females, three male juveniles and three female juveniles are designated as paralectotypes and are labelled accordingly.

***Hierodula atricoxis* Wood-Mason, 1878**

Hierodula atricoxis Wood-Mason, 1878: 582

This species was described from a male from "one of the islands in Torres Straits (MacFarlane)" and a female from Australia collected C. French. Both specimens have been found in the ZSIC alcohol collection. These specimens agree exactly with Wood-Mason's description, measurements and drawings. As no holotype was nominated, the male (Registration No. 767/1) is hereby designated as the lectotype and the female (Registration No. 134/1) as the paralectotype and they have been labelled accordingly. The male is broken into several pieces. The female is missing the right fore wing, right middle leg, left middle leg and left hind leg.

***Hierodula atricoxis* var. *grandis* Wood-Mason, 1882**

Hierodula atricoxis var. *grandis* Wood-Mason 1882: 31

Described from a single female from Murray Island, Torres Straits. A single female specimen in the ZSIC alcohol collection (Registration No. 677/1) agrees exactly with the published data, description and measurements. This specimen is hereby accepted as the holotype.

***Iris orientalis* Wood-Mason 1882**

Iris orientalis Wood-Mason 1882: 32

This species was described from an unspecified number of adult males and females from Kula Valley, Kangra in the N.W. Himalayas “where it was discovered in extraordinary numbers in 1880 by Mr A.G. Young”. A total of eight males and nine females bearing these data have been located in the ZSIC dry collection. Of these, a male bearing the Registration No. 6508/1 agrees most closely with the original description and measurements and is hereby designated as the lectotype. It is missing the tip of the abdomen, the left middle leg, the left hind leg and the right hind leg. The remaining 16 specimens are hereby recognised as paralectotypes and all specimens have been labelled according to their type status.

***Comptothespis australiensis* Wood-Mason, 1889**

Comptothespis australiensis Wood-Mason, 1889a:7

This species was described from “An adult female, dry, from Australia. Professor Westwood (E).” and with Registration No. 4323/4. A single female specimen bearing these data has been located in the ZSIC dry collection. It is missing both antennae, the abdomen, the right fore leg, right hind tibia, left fore tibia, left middle tibia and left hind tibia but otherwise agrees exactly with the published description and measurements. This specimen is hereby accepted as the holotype.

This specimen may have been mislabelled since extensive collecting in Australia since 1889 has failed to yield any additional specimens and all other species in the genus are recorded from Africa. The species has not been recorded from any locality subsequent to its description.

LITERATURE CITED

- Giglio-Tos, E, 1915 (volume date 1914). Mantidi Esotici. Generi specie nuove. *Bull. Soc. Entomol. Ital.*, **46**: 134-200.
- Giglio-Tos, E., 1927. *Das Tierreich. Lief. 50. Orthoptera Mantodea*. Berlin: Walter de Gruyter & Co. 707pp.
- Kirby, W.F., 1904. *A synonymic Catalogue of Orthoptera. Vol.1*. London: British Museum (Natural History), pp207-316.
- Saussure, H. de, 1861. Etudes sur quelques Orthopteres du Musee de Geneve Nouveaux ou imparfaitement connus. *Ann. Soc. ent. Fr.*, **14**(4): 469-494.
- Saussure, H. de, 1869. Essai d'un systeme des Mantides. *Mitt. Schweiz. Entomol. Ges.*, **3**: 49-73.
- Wood-Mason, J., 1878. On new and little-known Mantidae. *Proc. zool. Soc. Lond.*, **38**: 580-587.
- Wood-Mason, J., 1882. On new and little-known Mantidae. *J. Asiat. Soc. Bengal*, **51**: 21-36.
- Wood-Mason, J., 1889a. *A catalogue of Mantodea with descriptions of new genera and species, and an enumeration of the specimens in the collection of the Indian Museum, Calcutta. No.1*. Calcutta: Indian Museum. 48pp.
- Wood-Mason, J., 1889b. The Ethiopian and Oriental representatives of the mantodean subfamily Vatiidae. *J. Asiat. Soc. Bengal*, **58**: 306-326.