

ON A SMALL COLLECTION OF MANTIDAE (DICTYOPTERA)  
FROM MAHARASHTRA, INDIA, WITH THE DESCRIPTION  
OF A NEW SPECIES

*By*

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(With 2 Text-figures)

INTRODUCTION

Mantids frequently live in grassland and forests of India. To date only 140 species of this order are known from Indian sub-region. Wood-Mason (1878, '79, '82, '85, '89 and '91) explored the Indian mantid fauna and during the last one century no significant contribution has been made from India. The present paper is a part of the "Studies on the systematics, biology and taxonomy of mantid fauna from India".

Sub-family : OXYTHESPINAE Giglio-Tos 1919

**Heterochaetula tricolor** (Wood-Mason) 1889

1876. *Heterochaeta tricolor*, W.-Mas. : *Ann. nat. Hist.*, 18 (4) : 441.

1889. *Heterochaetula tricolor*, W.-Mas. : *J. Asiat. Soc. Bengal*, 58 : 309.

1911. *Heterochaetula tricolor*, Rehn : *Gen. Ins., fasc.*, 119 : 20.

1927. *Heterochaetula tricolor*, Gigl.-Tos : *Das Tierreich*, 50 Lief : 287.

*Material* : 1 ex., ♀, Distt. Parvani, Purna River, Coll. *R. N. Chopra*, 26. xi. 70, Regd. no. 9546.

*Remarks* : So far only two species under this genus are recorded from India. This species differs from its allied species *H. fissispinis* W.-Mas. by the presence of simple ocular spine which is bifid in the other. The summit of the vertex in this species does not exhibit any prominent groove to hold the tip of the pronotum. Moreover the superior apical lobe of the anterior coxae not prolonged.

## Sub-family : HYMENOPODINAE Giglio-Tos 1919

**Creobroter apicalis (Saussure) 1869**

1869. *Creobotra apicalis*, Sauss. *Mt. Schw. ent. Ges.*, 3 : 73.  
 1971. *Creobotra apicalis*, Sauss. *Mem. Soc. Geneve*, 21 : 146, 317.  
 1898. *Creobrotra apicalis*, Sauss. *Rev. Suisse. Zool.*, 5 : 200.  
 1904. *Creobroter apicalis*, Kirby, *Cat. Orth. Brit. Mus.*, 1 : 291.  
 1927. *Creobroter apicalis*, Giglio-Tos., *Das Tierreich.*, 50 Lief. : 558.  
 1931. *Creobroter apicalis*, Werner, *Proc. Zool. Soc. Lond.* Pt. II : 1334.

*Material* : 1 ex. ♀, Distt. Satara, Ambenali, near Pratapgad : coll. B. K. Tikader, 30. v. 76, Regd. no. 3/3012.

*Remarks* : This species was discovered from Assam and then recorded from Bangla Desh (Chittagang Hill tracts) in Indian subcontinent. It differs from the other three Indian species under this genus by the presence of big ocelli-like spot in the middle of the discoidal area of the elytra formed by two arched black bands enclosing two black spots.

**Euantissa pulchra (Fabr.) 1787**

1787. *Mantis pulchra.*, Fabricius, *Mant. Ins.*, 1 : 229.  
 1792. *Mantis flavicincta*, Oliver, *Enc. Meth.*, 7 : 631, 641.  
 1802. *Mantis caffrana*, Lichtenstein, *Tr. Linn Soc. Lond.*, 6 : 31.  
 1813. *Mantis marginalis*, Stoll, *Represent. Spec.*, 37 t. 11 fig. 43.  
 1815. *Mantis pulchra*, Thunb., *Mem. Ac. St.-petersb.*, 5 : 288.  
 1838. *Mantis (Ameles) flavicincta*, Burm., *Hand. Ent.*, 2 : 531.  
 1842. *Mantis (Oxypilus) marginalis*, Haan, *Verh. nat. Gesch. Nederl. Bezitt., Ins.* 87.  
 1871. *Antissa pulchra* Stal, *Oefv. Ak. Forh.*, 28 : 400.  
 1871. *Pseudomantis (?) pulchra* Saussure, *Mem. Soc. Geneve.* 21 : 17, 194.  
 1872. *Gonypeta (Antissa) marginalis* + *Gonypeta (Antissa) pulchra.*, Saussure, *ibid.*, 23 : 32.  
 1877. *Antissa pulchra* Stal, *Bih. Sv. Ak.*, 4 (10) : 87.  
 1897. *Antissa pulchra* Boliver, *Ann. Soc. ent., France*, 66 : 313.  
 1927. *Euantissa pulchra* Giglio-Tos, *Das Tierreich.*, 50 Lief. : 540.

*Material* : 1 ex. ♂ Poona, Mundhwa, Botanical Garden ; Coll. A. S. Mahabal, 28. vi. 77, Regd. no. 12439.

*Remarks* : This species is widely distributed in India. The specimen is comparatively small (15.0 mm). Colouration of the hind wing is little different ; the hyaline area commences from the middle of the humeral and anal margin and then proceeds upwards, gradually narrowed near the middle of the discoidal area where it ends. Transverse veins of outer half of hind wing are white,

## Sub-family : LITURGUSINAE Giglio-Tos 1919

**Humbertiella ceylonica** Saussure 1869

1869. *Humbertiella ceylonica*, Saussure, *Mt. Schw. ent. Ges.*, 3 : 62.  
 1971. *Humbertiella ceylonica* Saussure, *Mem. Soc. Geneve*, 21 : 22, t. 4 f. 5.  
 1889. *Humbertiella ceylonica* Westwood, *Revis. Mantid.*, : 30, t. 2 f. 1.  
 1891. *Theopompa septentrionum* Wood Mason, *Cat. Mant.*, : 64, t. 1 f. 3.  
 1892. *Humbertiella ceylonica*, Brunner, *Ann. Mus. Genova*, 33 : 60.  
 1904. *Humbertiella septentrionum* Kirby, *Cat. Orth. Brit. Mus.*, 1 : 214.  
 1927. *Humbertiella ceylonica*, Giglio Tos, *Das Tierreich*, 50 Lief. : 64.

*Material* : 1 ex., ♀ (adult). Pune, Koregaon ; coll. R. N. Chopra, 7. xii. 67. Regd. no. 6123.

8 exs. (nymphs). Regd. nos. 9929 (2 exs.), 9883 (3 exs.), 8965 (2 exs.) and 7900 (1 ex.).

*Remarks* : This specimen is rather small in size (22 mm.) in comparison to the others recorded previously. This species was previously recorded from Assam, Kerala, M. P. and U. P.

## Sub-family : MANTINAE Kirby 1904

**Deiphobe incisa** Werner 1933

1938. *Deiphobe incisa*, Werner, *Proc. Zool. Soc. Lond. Pt. II* : 897-901.

*Material* : 1 ex. ♂, Distt. Nanded, Naigaon ; Coll. K. R. Rao, 19. viii. 71. Regd. no. 3/619.

*Remarks* : It differs from the type species by the presence of hyaline anal area of elytra. This character is similar with the specimen of Sagoda, U. P. described by Werner (1933).

**Mantis nobilis** Brunner 1892

1892. *Mantis nobilis* Brunner, *Ann. Mus Genova*, 33 : 70, t. 2 f. 23.  
 1904. *Mantis nobilis* Kirby, *Cat. Orth. Brit. Mus.* 1 : 251.  
 1927. *Mantis nobilis* Giglio-Tos, *Das Tierreich*, 50 Lief. : 408.  
 1930. *Mantis nobilis* Werner, *Proc. Zool. Soc. Lond. Pt. II* : 689.

*Material* : 1 ex. ♀, Pune, Ambenali ; coll. B. K. Tikader, 30. v. 76. Regd. no 3/3012.

*Remarks* : It is recorded previously from Birmánie and then from Dehra Dun. This is a first time record from Western India. Some important characters are : stigma is marked on either end by a brownish spot. A black patch is present ventral to coxal joint, as well as ventral and proximal 1/3 length of anterior coxae.

Sub-family : AMELINAE Giglio-Tos 1919

**Elmantis nira** sp. nov.

(Text-figs. 1-2)

*Male* : Greyish brown ; total length 27 mm. wing span 43 mm.

Frontal sclerite transverse ; superior margin wavy in the middle with the concavity in the middle—the sides being sinuated. The middle of upper and lower margins are blackened. Vertex with a median and

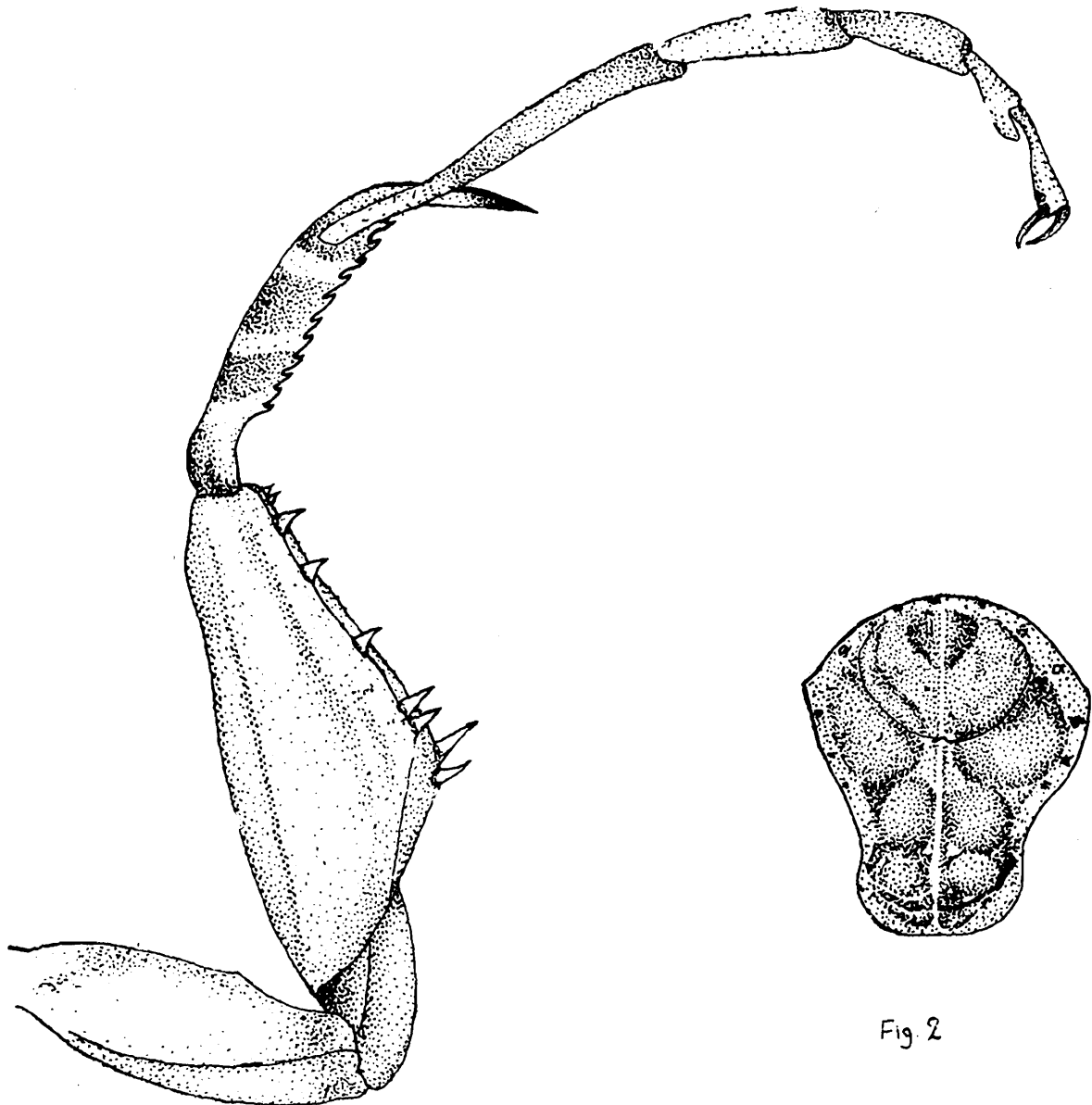


Fig 1

Fig. 2

Text-figs. 1. *Elmantis nira* sp. nov. male, showing right fore leg, x 10. 8.

2. *Elmantis nira* sp, nov. male, showing pronotum from top, x 10. 8.

two lateral lobes (on each side) of which juxtacular lobes are more prominent and separated from the next inner one by a deep groove. Eyes are bulging ; antennae stout and ciliated. Ocelli very prominent.

*Pronotum* : Brownish with flattened margins marked by black spots ; this is highly flattened anteriorly and suddenly constricted near the

posterior quarter of metazona. Margins as well as dorsal surface is covered by stout cilia. Prozona with indistinct median groove and metazona with prominent carina. Anterior three pairs of bosses of metazona more rounded and elevated posteriorly while the smallest basal is continued laterally along with a prominent ridge.

*Elytra and wings* : These are hyaline, the former being light brownish. Both are densely ciliated. Costal area of elytra very narrow with little obliquely parallel veinules. Mediastinal bifurcated distally. Anterior radial similarly bifurcated but not the posterior radial vein. Plicata vein with two branches. Each longitudinal vein of elytra and wings is alternately brown and hyaline. Apex of elytra rounded. Costal area of wing has parallel venules.

*Fore legs* : Anterior coxae nearly as long as pronotum and bear black spot on either sides. Upper margins of femora little arched. Basal two external spines are closely approximated and this margin bears very fine pointed spinules. Discoidal spine 4 ; internal spine 12—all are brown and only the tips are black. Tibiae with 9 internal spines gradually longer towards the apex. External spines are 11 in number. Blackish bands (3 number) are visible more clearly internally. Tarsi blackened towards apices.

*Mid and hind legs* : These are irregularly dotted black and also with blackish bands. Femora have apical spine. Metatarsuses are longer than other segments taken together.

*Others* : Supra-anal plate triangular, keeled and pointed ; short exposing most parts of genitalia. Cerci cylindrical with long cilia.

*Measurements* : ♂, 27 mm. Pronotum— $3/4$  mm. (W/L). Head width—4 mm. ; Elytra—21 mm. ; Wings—20 mm. ; Ant. coxae—4.2 mm. ; Ant. femora—5.7 mm. ; Ant. tibiae—3.1 mm. ; Ant. tarsae—4.5 mm. ; Total body length—27 mm.

*Distribution* : INDIA : Maharashtra.

*Type locality* : *Holotype*, ♂. INDIA : Maharashtra, Nira, Dt. Poona Coll. M. B. Rao, 11. v. 72, 2 exs.

Holotype Regd. No. 7854/H5 ; deposited to Zoological Survey of India, Calcutta.

*Comparison* : This is nearer to *E. lata* Gigl. Tos. by having feebly arched superior border of frontal sclerite and long elytra more or less widened at the apex. But it can be distinguished by the presence of eleven external spines in the anterior tibiae.

## Sub-family : ACROMANTINAE Giglio-Tos. 1919

**Ambivia popa Stal, 1877**

1877. *Ambivia popa* Stal, *Bih. Sv. Ak.*, 4 (4) : 88.  
 1889. *Ambivia popa* Westwood, *Revis, Mantid.*, 22, t. 11 f. 6.  
 1908. *Popa undata*, Werner, *Annuaire Mus. St.-Petersb.*, 13 : 124.  
 1915. *Ambivia popa* Giglio-Tos, *Boll. Mus. Torino*, 30 (702) : 8.  
 1927. *Ambivia popa* Giglio-Tos, *Das Tierreich*, 50 Lief. 530.  
 1933. *Ambivia popa* Werner, *Proc. Zool. Soc. Lond.* Pt. II 900.

*Material* : (i) 1 ex. ♀, Distt. Satara, Ambenali, near Pratapgad ;  
 Coll. B. K. Tikader, 3. v. 76. Regd. no. 3/3012.

(ii) 1 ex. (nymph), Pune, Khed Shivapore, Coll. R. N. Chopra, 17.i.69.  
 Regd. no. 7230.

*Remarks* : Genus *Ambivia* is represented by only one Indian species and is widely distributed in Eastern part of India. This is first record from Western India. The diagnostic features of this species are : the four posterior femora have rounded preapical lobes. Elytra broad, pointed at the tip, spotted brownish and bears two transverse pale bands ; claw groove in the middle with a spot in vicinity to it.

## SUMMARY

This paper records six species of mantids from Maharashtra, India, of which *Elmantis nira* is described as new to science.

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