

ON A FEW INTERESTING SPECIES OF THE FAMILY  
CORYDALIDAE (SUBORDER MEGALOPTERA :  
ORDER NEUROPTERA) FROM INDIA

S.K. GHOSH

*Zoological Survey of India, M Block, New Alipore Calcutta.*

INTRODUCTION

The paper deals with the description of a new species and also the description of a male and a female of two different species which are for the first time recorded from India. In this connection it may be stated that Needham (1909) described a single female of *Corydalis territans* from sikkim and MacLachlan (1869) described a single immature male from "India orientalis". The author while studying the both unnamed and named collections from North-east India encountered a new species and a male of *C. territans* Needham and a female of *N. latratus latratus* (MacLachlan) which are enumerated below.

1. *Protohermes arunachalensis* sp. nov.

**Head** : luteus. mandible : with black tip ; occiput : with 4 black spots on either side; pronotum : broad, yellow and with black lateral lines which are interrupted at middle. meso- and metanotum : yellow, each with two black spots and yellow hairs ; wings (fig. 9) : oval; forewing : membrane smoky ; veins blackish except those in the yellow spots areas which are yellow; yellow spots more or less isolated ; smoky brown patch between the two costal veinlets from base to pterostigma present; hindwing : clear, hyaline from base to apex excepting for a squarish black spot at tip of wing; legs : yellow ; fore- and mid tibiae dorsally and also tarsi black ; hind legs completely yellow excepting for brown claws; abdomen (figs. 1-3) : brownish ; male genitalia : appendices superiores short, broad and nearly straight with tips having brush of hairs at inner margin ; genital valve consisting of two long, divergent cylindrical prominences which are double the size of appendix superiores ; appendix inferiores short, claw-like and with black tips.

**Measurements** : Male (Holotype): length of forewing, 42 mm; length of hindwing, 38 mm.

**Material examined** : 1 Male (Holotype) ; Arunachal Pradesh, Chief Minister's Bungalow, Itanagar, 27. iv. 1987, Coll. C.B. Prasad, Z.S.I. Reg. No. 1259/H<sub>12</sub>.

**Distribution** : India: Arunachal Pradesh.

**Remarks** : The species closely resembles *Protohermes anticus* (Walker) but differs from it in male genital armature and also by the four spots on either side of the occiput, smoky brown patch between costal veinlets in forewing and squarish black spot at tip of hindwing.

## 2. *Corydalis territans* Needham

1909. *Corydalis territans* Needham, *Rec. Indian Mus.*, 3 : 193.

Head and body : robust. Head: rufous, rugose ; lateral margin minutely serrulate on its flaring border which is produced behind into a sharp spine and ending anteriorly into a thin, flat, triangular projection behind eye ; vertex elevated, rim at inner side of antenna edged with black. Antenna : broken ; existing two basal segments brownish yellow at base and darkred at apex. Ocelli : 3, closely set and edged with black ; Frons : anterior rim with deep invagination at middle and indented laterally. Mandibles : long, nearly as long as head and with tips crossed, Maxillary palpi : basal and apical segments yellow and other 3 segments black. Pronotum : longer than wide ; finely rugulose transversely; with a long black stripe on each side and also with a transverse stripe anteriorly. Meso- and metanotum : bright yellow at middle and reddish fulvous on either side of it. Wings : membrane brownish. Forewing : costal space narrowed at region of pterostigma ; with hyaline cells between brown bordered costal crossveins ; with hyaline spots - 4 spots between R and first fork of RS, 3 spots between RS and media, one between branches of media, 4 between cubitus and media and 4 between cubitus and anal. Hindwing : mostly hyaline but brown beyond middle of wing and towards apex; very few hyaline spots between R & RS and branches of RS. Legs : rufous beneath and at base ; blackish dorsally and towards apex ; fore femora darker than others. Abdomen: reddish fulvous ; genitalia as in figs. 4-5.

*Measurements* : Male, length of forewing, 62 mm ; hindwing, 55mm.

*Material examined* : 1 Male : India, Sikkim, Dentam, no other data available.

*Distribution* : India : Sikkim.

*Remarks*: The species was described by Needham (1909) from Sikkim based on a single female specimen. The author while studying the named collection has got a male specimen which has been described. The male is for the first time recorded from India.

## 3. *Neoneuromus latratus latratus* ( MacLachlan ).

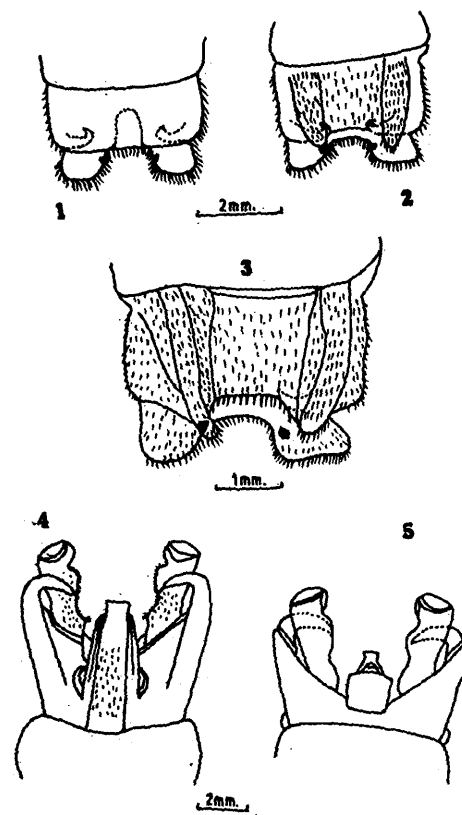
1869. *Neuromus latratus* MacLachlan. *Ann. Mag. nat. Hist.*, (4) 4 : 43.

1910. *Neoneuromus latratus latratus* (MacLachlan), *Cat. colln. Selys*, 5(1) : 26.

*Body* : red brown. Head : red brown ; dent on either side of posterior part of head black. Ocelli : inner rim black. Antennae : black except first two red brown basal segments. Mandible : black. Maxillary and labial palpi : red brown with apical segments black. Pronotum : with a narrow black streak on either side ; a black lunule anteriorly on outside of lateral streak. Meso - and metanotum : brownish yellow with yellow wooly hairs. Wings : membrane light smoky brown but forewings darker than hindwings ; longitudinal veins yellow ; crossveins black except between cubito - anal vein of hindwing where the crossveins are yellow ; pterostigma also smoky brown. Legs : tibiae and tarsi black. Abdomen: red brown ; tip of abdomen as in fig. 6.

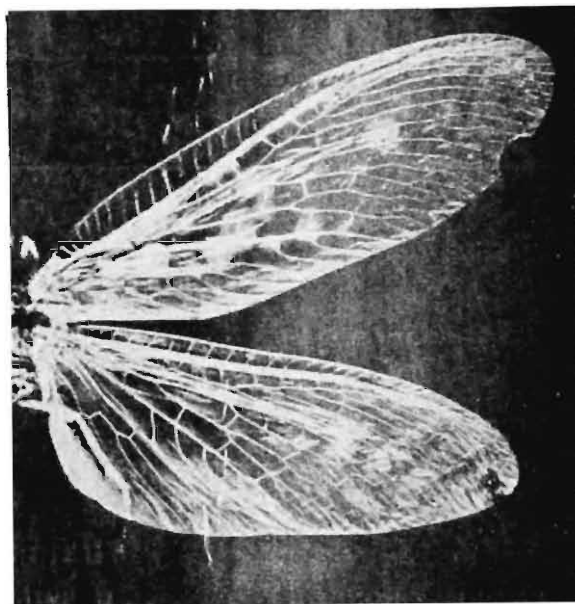
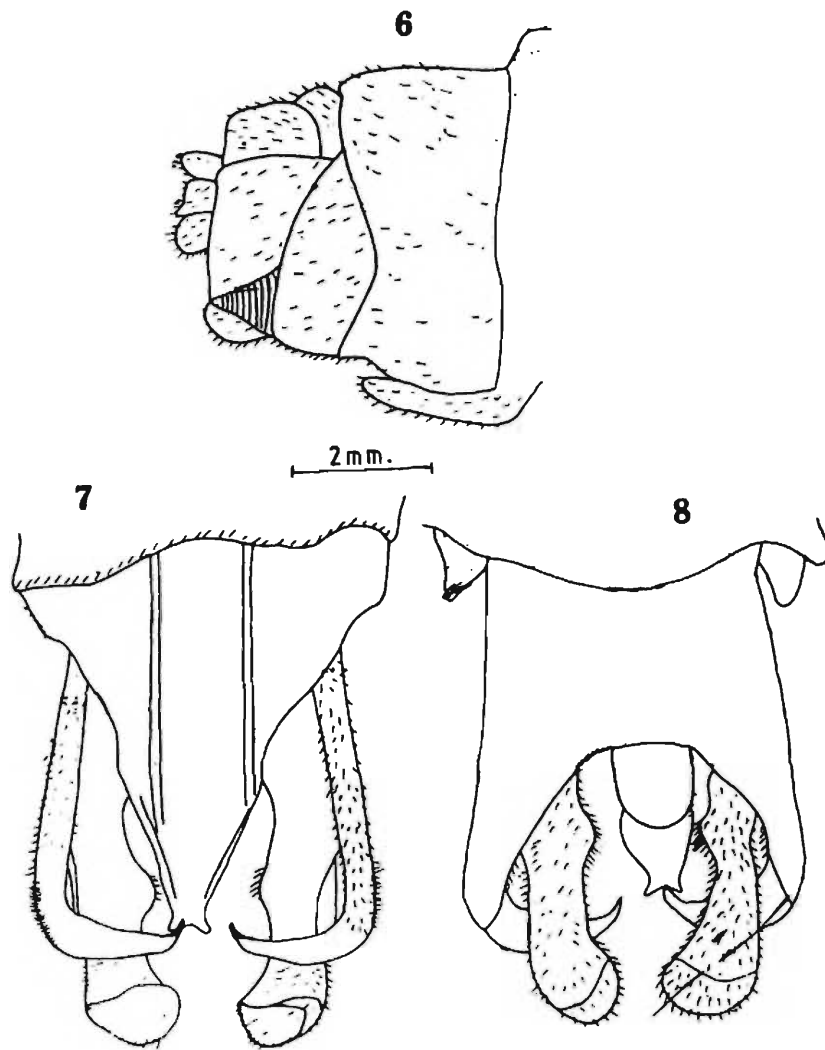
*Measurements* Female : length of forewing, 66 mm and length of hindwing, 61 mm.

*Material examined* : 1 Female : India, Meghalaya, Ward Lake, Shillong (Khasi Hills), 29. vii. 1973, Coll. K. Dev.



Figs. 1-3. *Protohermes arunachalensis* sp. nov.

1. Tip of abdomen showing male genital armature (dorsal view); 2. same (ventral view); 3. Same (ventro-lateral view). Figs. 4-5. *Corydalus territans* Needham 4. Tip of abdomen showing male genital armature (Ventral); 5. Same (dorsal).



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Figs. 6-8. *Neoneuromus latratus latratus* (MacLachlan) 6. Tip of abdomen, female (lateral). 7. Tip of abdomen showing male genital armature (ventral) ; 8. Same (dorsal). Fig. 9. fore - and hindwing of *Protohermes arunachalensis* sp. nov.

*Distribution* : India : Meghalaya

*Remarks* : MacLachlan (1869) described the species from "India Orientalis" Later, Weele (1910) examined MacLachlan's types and considered it to be a "very immature male" The author, while studying the collections of Meghalaya and Arunachal Pradesh has encountered a single female and a male specimen from the respective States. As the female of the species has been recorded for the first time from India so it has been described along with illustration. The figures (7-8) related to the genitalia in male has also been included as it was described by MacLachlan (loc.cit.) on immature specimen.

#### SUMMARY

The paper deals with the description of a new species, namely, *Protohermes arunachalensis* and also the descriptions of a male of *Corydalidopsis territans* Needham and a female of *Neoneuromus latratus latratus* (Walker) both of which are for the first time recorded from India.

#### ACKNOWLEDGEMENT

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