

ON A FEW INTERESTING SPECIES OF THE FAMILY CHRYSOPIDAE
(NEUROPTERA) FROM NORTH-WEST HIMALAYAS, INDIA

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The species, dealt with here, were sent for identification by the Biosystematic Research Unit, Department of Zoology, Kalyani University, Kalyani. The species, at the time of collection from Garhwal, North-West Himalayas, were reported to be associated with aphids. Amongst a total of three species, two are described as new to science and both of them are not showing close affinity with any of the described species from India although some of them are with inadequate description. Another species, namely, *Chrysopa murreensis* Tjeder is recorded for the first time from India.

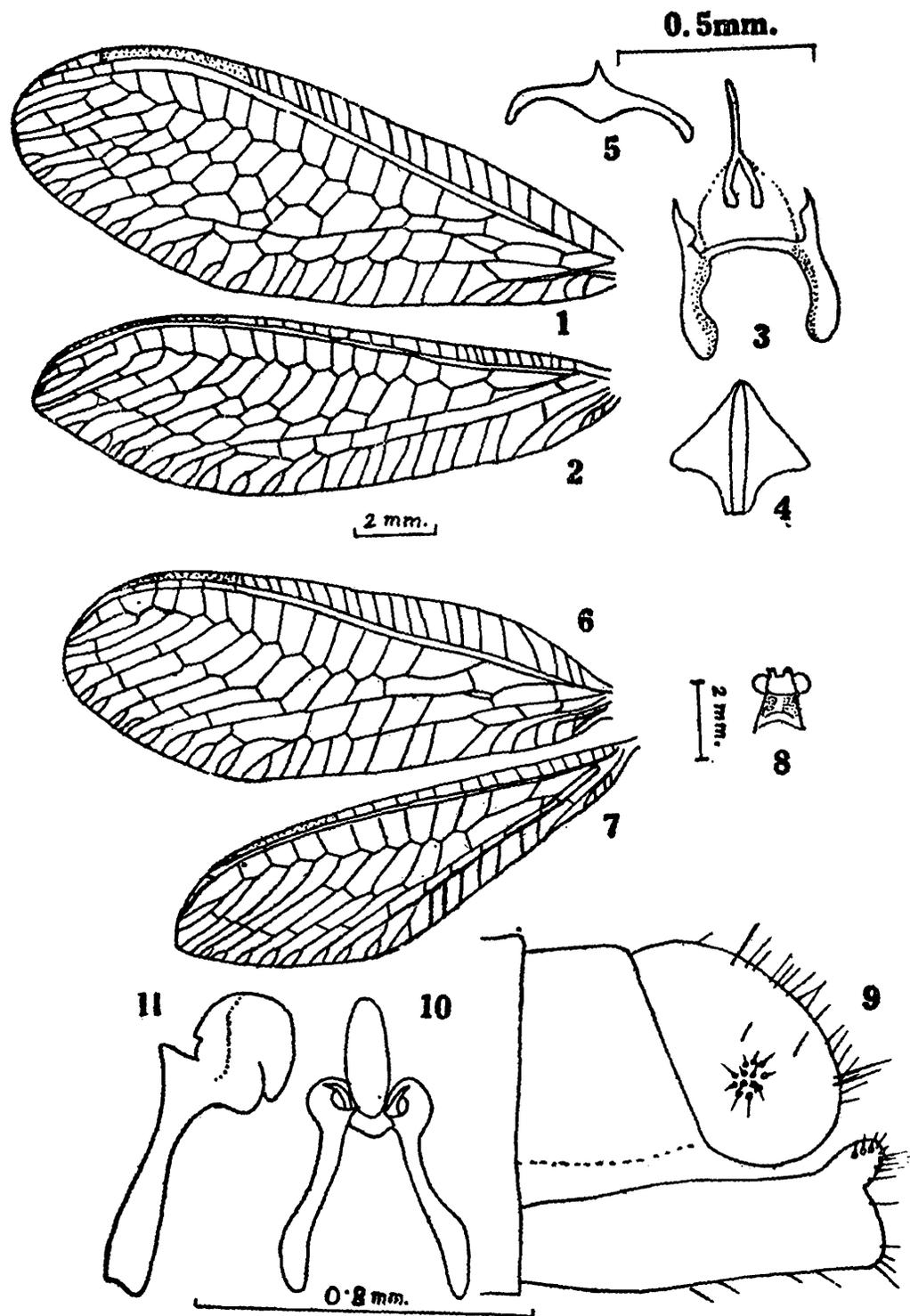
1. *Chrysopa himalayana*, n. sp.

Labrum : brownish. Clypeus : yellowish with narrow elongated stripe at lateral margin. Frons : yellow. Gena : with a rounded black spot. Vertex and antenna : yellow. Thorax : greenish yellow with median white vittata ; pronotum (fig. 8) longer than broad with anterior margin rounded and narrower than posterior and also with short white hairs. Wings : membrane hyaline without mark ; longitudinal veins pale greenish with white hairs ; pterostigma yellowish. Forewing

(fig. 6) : 1st and 2nd radio-medial crossveins, crossvein between 1st and 2nd cubital cell and gradate crossveins completely black ; costals, crossveins between R and Rs, 3rd, 4th and 5th crossveins between Rs and Psm black at both ends ; all branches of Rs black at base ; number of gradates 6/8 ; apex of intra-median cell ending after first radio-medial crossvein. Hindwing (fig. 7) : costals and crossveins between R and Rs black at both ends ; gradates in the outer row black ; number of gradates 4/8. Legs : yellowish with brown tarsi and dark brown claws. Abdomen (fig. 9) : brown with a mid-dorsal white vittata from base to apex ; tergite 9 + ectoproct with posterior margin expanded than anterior ; callus cerci with trichobothria ; sternite 8 + 9, an elongated structure with a bulbous projection dorsally at apex carrying a number of black hairs ; gonarcus and arcessus as in fig. 10 and 11 ; tignum and gonapsis lacking.

Measurement : Length of forewing, 17 mm and hindwing, 15 mm.

Material examined : 1 ♂ (Holotype), India, North-West Himalayas, Uttar Pradesh, Govindaghat, 15.ix.1982, coll. D. Ghosh, Z. S. I. Reg. No. 1167/H₁₂.



Figs. 1-5. *Chrysopidia garhwalensis*, n. sp. 1. forewing 2. hindwing 3. gonarcus with arcessus (dorsal) 4. gonapsis 5. tignum.

Figs. 6-11. *Chrysopa himalayana*, n. sp. 6. forewing 7. hindwing 8. head and pronotum (dorsal) 9. tip of abdomen (lateral) 10. gonarcus with arcessus (dorsal) 11. gonarcus with arcessus (lateral).

2. *Chrysopa murrensis* Tjeder

1963. *Chrysopa murrensis* Tjeder, *Ent. Tidskr.*
Arg. 84, Hafte, 1-2 : 125-128.

Measurement : Length of forewing, 13mm and hindwing, 11 mm.

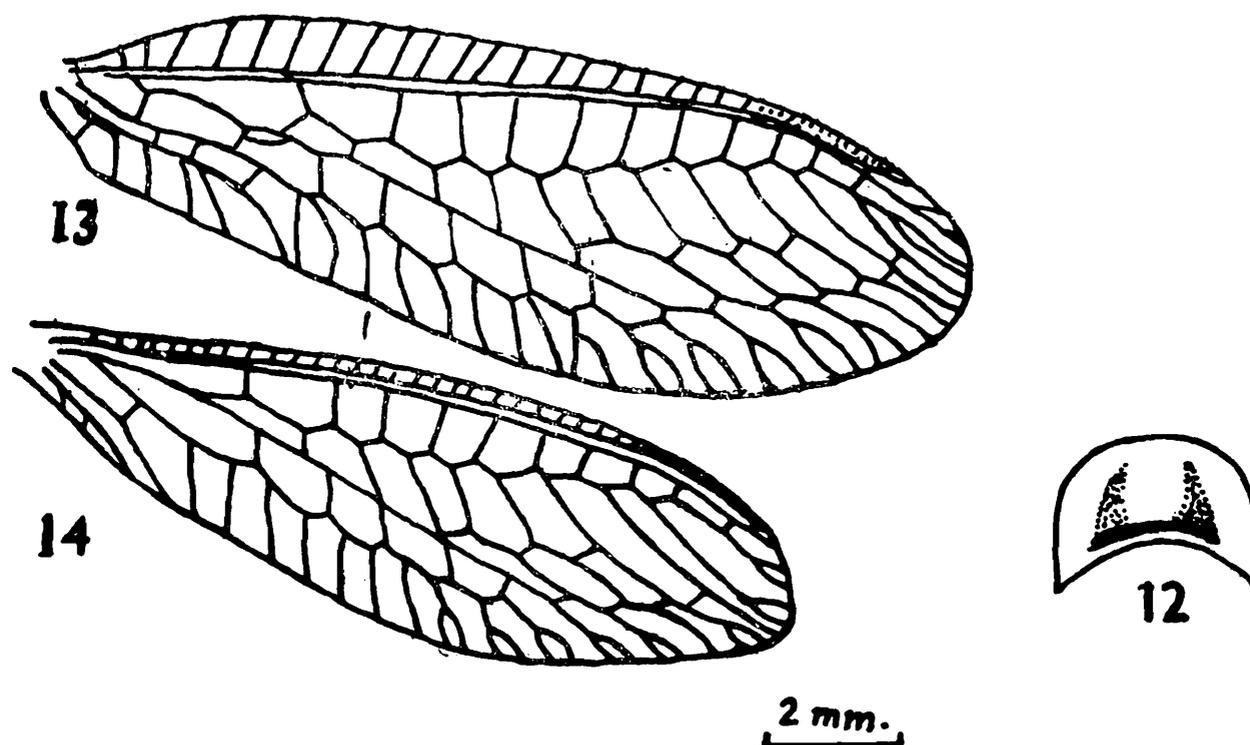
Material examined : 1♂, India, North-West Himalayas, Uttar Pradesh, Gangotri, 3.x.1982, coll. D. Ghosh.

Remarks : Tjeder (1963) described the species from Murree in Pakistan. The species can be well recognised by a black streak over gena and lateral margins of clypeus, a broad, green, median longitudinal stripe and brownish shading lateral to this on pronotum (fig. 12), deep transverse furrow near base of pronotum, first intra-median cell extending beyond the first radio-medial crossvein (fig. 13), green abdomen with two black lateral lines and also by the structure of genitalia specially by a large gonapsis with

long downwardly directed tooth. However, the species is for the first time recorded from India.

3. *Chrysopidia garhwalensis*, n. sp.

Labial palpi : brown with apex more dark. Maxillary palpi : brown with black apical segment. Labrum, clypeus, frons and vertex : yellow. Gena : with a black stripe. Antenna : scape and pedicel yellow ; flagellum brownish. Thorax : yellowish ; pronotum with reddish shade laterally. Wings : Membrane hyaline and unmarked ; longitudinal veins pale, greenish yellow. Forewing (fig. 1) : basal subcostal crossvein, costals before pterostigma, first radio-medial crossvein, first and second series of gradate crossveins and the crossvein between first and second cubital cell black ; pterostigma yellowish with a smoky patch at base ; intra-median cell elongate, large and its



Figs. 12-14. *Chrysopa murrensis* Tjeder, 12. pronotum (dorsal) 13. forewing 14. hindwing.

tip reaching beyond first radio-medial cross-vein ; inner gradates extended basally ; number of gradates in three rows being 10 : 8 : 9 ; hairs on veins black and marginal fringes white. Hindwing (fig. 2) : costals black, all other crossveins mostly yellow ; number of gradates 9 : 2 : 8 ; hairs mostly black. Legs : yellowish with whitish hairs ; tarsal segments brown ; claws dark brown. Abdomen : brownish ; tergite 9+ ectoproct rather short structure with rounded tip ; sternite 8+9 elongate and its tip in lateral view rather narrow ; gonapsis large as in fig. 4 ; gonarcus, arcessus and entoprocessus as in fig. 3 and tignum as in fig. 5.

Measurements : Length of forewing, 18 mm and hindwing, 16 mm.

Material examined : 1 ♂ (Holotype), India, North-West Himalayas, Uttar Pradesh, Gangotri, 3.x.1982, coll. D. Ghosh, Z. S. I. Reg. no. 1166 /H₁₂.

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REFERENCE

- TJEDER, B. 1963. A new *Chrysopa* from Pakistan (Neur. Chrysopidae). *Ent. Tidskr.*, Arg. 84, Hafte, 1-2 : 125-128.