

## Redescription of *Chrysopa hungarica* Klap. (Neur. Chrysopidae)

By

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Dr. Bela Kis, Cluj, recently informed me that he had among material collected in Dobrudscha found specimens of a *Chrysopa*-species, not enumerated in his recent list of the Roumanian Neuroptera (*Folia Ent. Hungarica*, ser. nova, 12, pp. 331—347, 1959). He supposed that the specimens represented *Chrysopa hungarica* Klap. and was kind enough to send them to me for examination. The two specimens received from Dr. Kis agree exactly with Klapálek's description of the colour characteristics of *C. hungarica* but in order to be able to make a thorough comparison with the types, two ♂♂, especially of the genital structures which never had been described, I applied to Dr. Henrik Steinmann, Budapest, for a loan of the types which once had been deposited in the Hungarian National Museum, Budapest. In response Dr. Steinmann informed me that the types of *Chrysopa hungarica* Klap. had been destroyed in 1956 during a fire that devastated part of the Natural History Museum collections.

As thus no holotype, lectotype, or syntype exists I feel entitled to designate one of the Dobrudscha-specimens as neotypus, this in connection with my revisory work on the Chrysopidae and in order to fix the hitherto doubtful identity of the species. I redescribe it as follows:

### *Chrysopa hungarica* Klap. 1899

*Chrysopa hungarica* Klapálek, Termesz. Fűzetek, 22, p. 440, figs. 10—11, 1899.

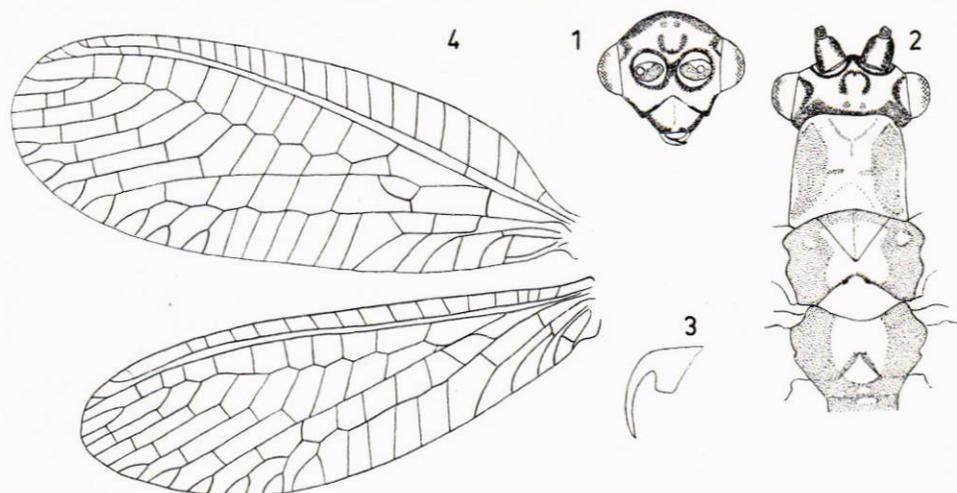
Locus typicus: Budapest. — Types destroyed. — Neotype, herewith designated: 1 ♂ from Valul lui Traian, Dobrudscha; in the collections of the Zoological Department of the University Bolai-Babes, Cluj (=Kolozvár=Klausenburg).

#### Description

Neotypus ♂ (dried and pinned specimen).

Size: length of body 8 mm, of forewing 10.5 mm, of hindwing 9.5 mm.

Head yellowish green with the following glossy black markings: a transverse streak across and around the occiput, dorsally fused with a curved



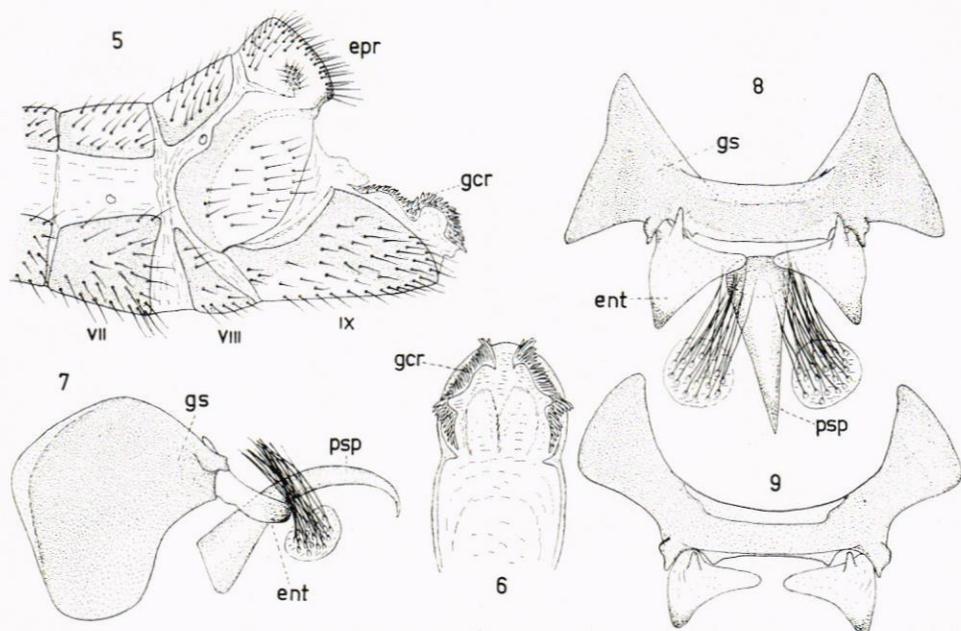
Figs. 1—4. *Chrysopa hungarica* Klap. Neotypus ♂. — 1. Head, in front. — 2. Head and thorax, dorsal. — 3. Claw of anterior leg. — 4. Wing-venation.

lateral streak that reaches the inner eye-margin as shown in figs. 1 and 2; a somewhat horseshoe-formed spot on vertex; a pair of small, round spots between the last-mentioned spot and the occipital transverse streak; a ring around each antennal base which rings fuse between the antennae; a streak on each gena, bending inwards apically along part of the anterior margin of frons, and a broad streak laterally on each side of clypeus. Maxillary palpi brownish black with tips of segments 2—4 and extreme base of segment 5 pale. Labial palpi black. Mandibles brownish with black inner margin and apex. Basal segment of antennae black with large pale dorsal spot (cf. fig. 2). Second antennal segment black. Flagellum gone.

Pro-, meso- and metanotum with a broad median yellowish green stripe, with broad lateral black stripes as shown in fig. 2. Lateral parts of thorax green with black-margined sutures and a large black spot on the supraepisternum of mesothorax. Base of coxae black; legs otherwise pale yellowish green. Claws with small internal tooth (fig. 3). Hairiness of thorax very sparse, short and black.

Wings with smoothly rounded apex (fig. 4), chiefly pale venation and short and sparse black hairiness on veins. Forewing: innermost 6 costal crossveins narrowly brownish at Sc; uppermost gradates in both series brown; basal crossvein between Sc and R dark brown; vein between intramedian cell and  $Cu_1$  brown; basal part of  $Cu_2$  and crossvein between  $Cu_1$  and  $Cu_2$  brown; marginal fork of 1A dark brown with pale apices of prongs. No dark veins in hindwing. Pterostigma in both wings dark greenish. Venation as in fig. 4.

Abdomen black with short black hairs on tergites and sternites. Intersegmental part pale and hairless. Sternite 9 with a ventral, green, elongate spot (fig. 5). Tergites 7, 8 and 9 also partly green as shown in the same figure. Ectoproct partly separated from tergite 9, green with blackish, rounded apex; its upper angle projecting, triangular. Cercal callus with



Figs. 5—9. *Chrysopa hungarica* Klap. Neotypus ♂. — 5. Apex of abdomen, lateral. — 6. 9th sternite with gonocristae, dorsal. — 7. Gonarcus and pseudopenis, lateral. — 8. Ditto, caudal. — 9. Gonarcus, dorsal.

Abbreviations: ent=entoproct; epr=ectoproct; gcr=gonocrista; gs=gonarcus; psp=pseudopenis; VII—IX=7th—9th sternites.

16 trichobothria. Sternite 8 narrow. Sternite 9 very large and projecting, of shape as illustrated in fig. 5. A pair of very long gonocristae with lamelli-form teeth present (fig. 5 and 6, ger). Gonarcus mainly black, with large lateral wings (fig. 7—9) and with a pair of entoproctus, pale with black apex, triangular in shape, each with a dorsal tooth. Pseudoaedeagus a curved tube, broad at base, tapering to a narrow and acute apex (fig. 7—8, psp).

Female unknown to the author.

#### Geographical distribution

Hungary: Budapest (Farkasvölgy), 2 ♂♂, types; according to Klapálek (1899); destroyed by fire. — Roumania: Dobrudscha, Valul lui Traian, neotypus ♂, 6.vi.1955, leg. Bela Kis; preserved in the collections of the Zool. Museum of the University Bolyai-Babes, Cluj. — Agigea, 1 specimen, 10.vi.1961, leg. Bela Kis; preserved in the mentioned Museum collections.

The two localities in Dobrudscha are situated 10—20 km from Constanta. The specimen from Agigea lacks its abdomen but agrees in other details with the neotype. The antennal flagellum (lacking in the neotype) is yellowish brown, thus agreeing with Klapálek's description.

The species has also been recorded from Switzerland: Wallis, Bérisal (Simplongebiet), 1 ♂, 1 ♀, 17.vi.1889, leg. Paul Steck (Eglin, Bull. de la Murithienne, Soc.valais. sci. nat. 58, p. 82, 1941). Dr. Eglin has informed

me that the specimens are deposited in the Bern Museum, that the ♂ in colour characteristics agrees with Klapálek's description as repeated by Navás (Arxivs de l'Inst. Cienc. Barcelona, 3, 1915) and Pongracz (Allantani Közlemenyek, 11, 1912) and that the ♀ is paler than the ♂ and probably teneral. An examination of the ♂ genitalia seems desirable in order to verify the identity.

*Chrysopa hungarica* Klap. is closely allied to *Chrysopa abbreviata* but different in details of colour and especially in the genital structures of the ♂.