

## On a small collection of *Trichoptera* from Palestine.

By

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Through the kindness of Mr. J. Palmoni of the Beth Gordon-Institute for Study of Nature and Agriculture, Kinneret, I have recently had an opportunity of examining some *Trichoptera*, collected by him on the River Jordan. The collection is a very small one, but it includes two species of great interest. In addition to the species mentioned below there is a ♀ *Leptoceridae* which I hesitate to deal with in the absence of the relative ♂.

### Fam. *Hydropsychidae*.

#### *Hydropsyche exocellata* Duf.

Dufour, Mém. Sav. Étrang. Acad. Paris, p. 616, 1841.

Mac Lachlan, Rev. & Syn. Trich. p. 367, pl. 39, figs. 1—6, 1878.

Mosely, The British Caddis Flies, p. 191, figs. 403—407, 1939.

This species is represented by 9 male specimens, all collected on the River Jordan, where he is flowing out of the Sea of Galilee, 200 m. under the sea level. The specimens agree rather well with the descriptions and figures given by Mac Lachlan and Mosely. Moreover, Mr. Martin E. Mosely of the British Museum has been kind enough to compare figures, drawn by me from a Palestine ♂ with specimens in his collection and has informed me, that he considers my determination to be correct. Some females from the same locality apparently also belong to this species.

#### *Hydropsyche jordanensis* n. sp.

(Fig. 1.)

Description of holotype ♂. — Head, prothorax and anterior legs missing. Meso- and metathorax yellowish brown; mesoscutellum distinctly darker. Median and posterior legs pale yellowish with pale yellowish hairity and spurs. Anterior wings narrow, yellowish brown haired with indistinct pale irrorations and with the outer margin

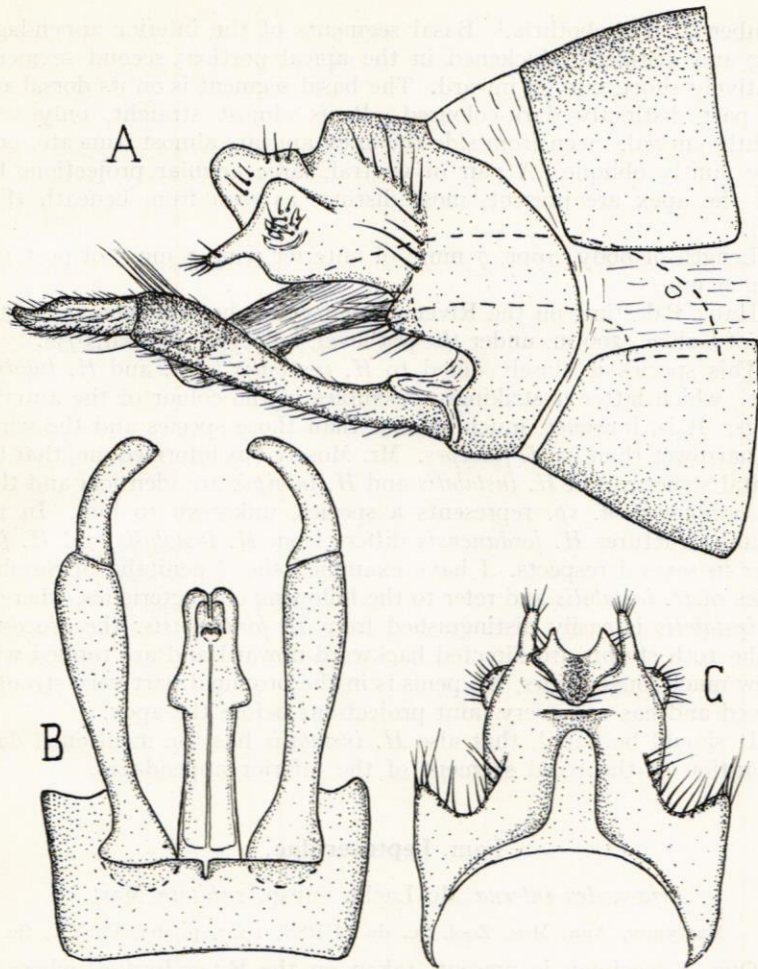


Fig. 1. *Hydropsyche jordanensis* n. sp. ♂. A. Genitalia, lateral. B. Inferior appendages and apex of penis, ventral. C. 9th and 10th tergites, dorsal.

distinctly and rather broadly dark. Posterior wings greyish hyaline; their apex with a dense, dark hairity, which gives the impression of dark brown coloration.

Abdomen yellowish brown. The 10th tergite, seen from the side, with its apex rounded and prominent, directed backward-upward. Arising on each side and below the apex there is a slender process bearing a tuft of short hairs at its apex. These processes are directed backward-downward. Cercal callus rather distinct, rounded, bearing a small

number of trichobothria.<sup>1</sup> Basal segments of the inferior appendages long and distinctly thickened in the apical portion; second segments relatively short, curved inward. The basal segment is on its dorsal apical part distinctly dark-coloured. Penis almost straight, only very slightly curved. Seen from side the apex appears almost truncate, only very faintly oblique. A pair of ventral, large angular projections before the apex are present, most distinct as seen from beneath (Fig. 1 B).

Length of body, appr. 7 mm.; of anterior wing 8 mm.; of posterior wing 6 mm.

Hab.: Palestine, on the River Jordan where he is flowing out of the Sea of Galilee, 200 m. under the sea level, holotype ♂, I.XII.1938.

This species is closely allied to *H. instabilis* Curt. and *H. fulvipes* Curt., which latter it strikingly resembles in the colour of the anterior wings. It is, however, much smaller than those species and the wings are narrower than in *H. fulvipes*. Mr. Mosely has informed me, that the genital structures of *H. instabilis* and *H. fulvipes* are identical and that *H. jordanensis* n. sp. represents a species, unknown to him. In the genital structures *H. jordanensis* differs from *H. instabilis* and *H. fulvipes* in several respects. I have examined the ♂ genitalia of Swedish males of *H. instabilis* and refer to the following characteristics, whereby *H. instabilis* is easily distinguished from *H. jordanensis*: the processes of the 10th sternit are directed backward-upward and are topped with a few much longer hairs; the penis is in the proximal part very strongly curved and has only very faint projections before the apex.

It should be noted, that also *H. instabilis* has the mentioned dark coloration of the basal segment of the inferior appendages.

#### Fam. Leptoceridae.

##### *Triaenodes interna* Mc Lachl. subsp. *capitata* Mart.

Martynov, Ann. Mus. Zool. Sc. de l'URSS, 1927, p. 463, Pl. XX, fig. 2.

One ♂ specimen is present, taken on the River Jordan, where he is flowing out of the Sea of Galilee, 30.V.1937.

I am indebted to Dr. Karl-Herman Forsslund, Stockholm, for assistance with the identification of this species. Dr. Forsslund has kindly placed the above paper by Martynov to my disposal and has emphasized the similarity of Martynov's figure with my own, drawn from the specimen in question (Fig. 2). There are, however, some differences: the superior and the additional appendages as also the upper penis-cover seem to be relatively much shorter than figured by Martynov. I think

<sup>1</sup> I have observed the presence of trichobothria also in the genera *Cheumatopsyche* Wall. and *Leptonema* Guér. of the same family. In some species of those genera the cercal callus is much more distinct than in *Hydropsyche* Curt.

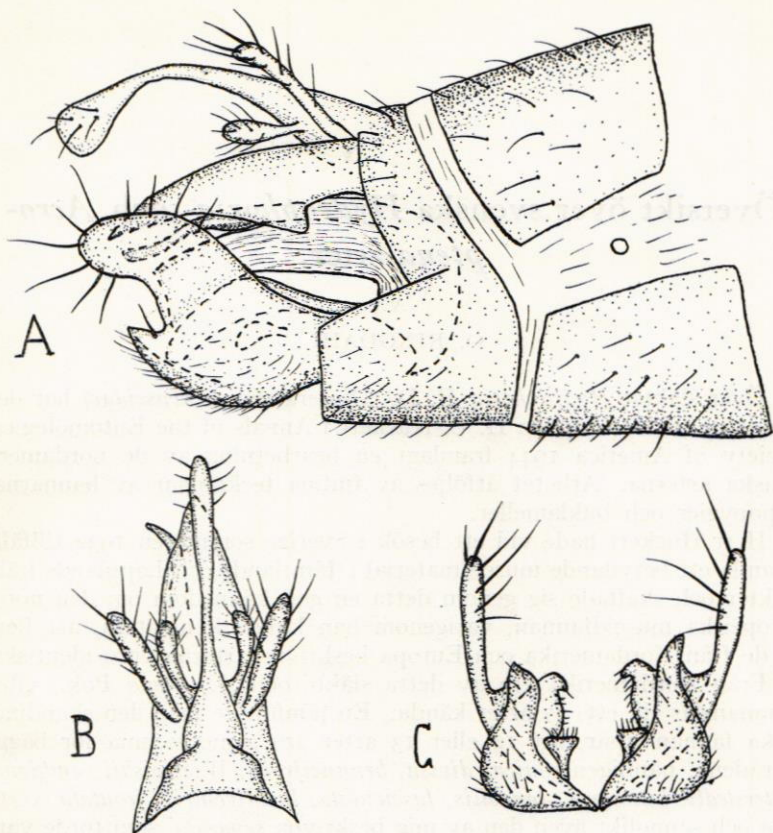


Fig. 2. *Triaenodes interna* Mc Lachl. subsp. *capitata* Mart. (Palestine). A. Genitalia, lateral. B. Dorsal part of genitalia, dorsal. C. Inferior appendages, ventral.

that these differences are perhaps of less value as the other characters are wholly agreeing, at least so far as can be observed when compared with Martynov's figure.

I am not sure that Martynov is right when considering it to be only a subspecies of *Tr. interna* Mac Lachl. This cannot be stated without an examination of the type-specimen of that species.

*Tr. interna* Mac. Lachl. was described from Turkestan and has subsequently been recorded by Martynov from Amu-Darja, Transcaspian district, Syr-Darja, Uralsk district, from River Bija, Altai, the upper Obj and the River Tomj, Tomsk district.

The subspecies *capitata* Mart. was described from the vicinities of Nasrie and Achwaz, southern Persia.