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Description of the larva of *Parapsectra styriaca* (Reiss) (Diptera: Chironomidae)

by

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ABSTRACT. — The larva of *Parapsectra styriaca* (Reiss) (Diptera: Chironomidae) is described. A note is made on the habitat of the larvae and the place of the species within the genus *Parapsectra* is discussed.

On 23.IV.1977, H. Moller Pillot collected 3 pupae (2 male; 1 female) and a male imago of *Micropectra styriaca* Reiss in a helokrene (spring covering a large area and thus creating a marsh) near the municipality of Stipdonk (N-Brabant, the Netherlands). The material was sent to F. Reiss, since the pupa was still unknown and did not fit in the genus *Micropectra* Kieffer. Reiss (1982) transferred *styriaca* to the genus *Parapsectra* Reiss based on the similarity of the pupal characteristics with the concept of the genus. On 13.IV.1982, the author collected the larvae and pupae in the same area where Moller Pillot had collected his material. The larvae could be identified by their prepupal stage.

Description

Length 4.0-5.0 mm. Living larva pale-red. Preserved in alcohol (70%) the larva turns pale-yellow.

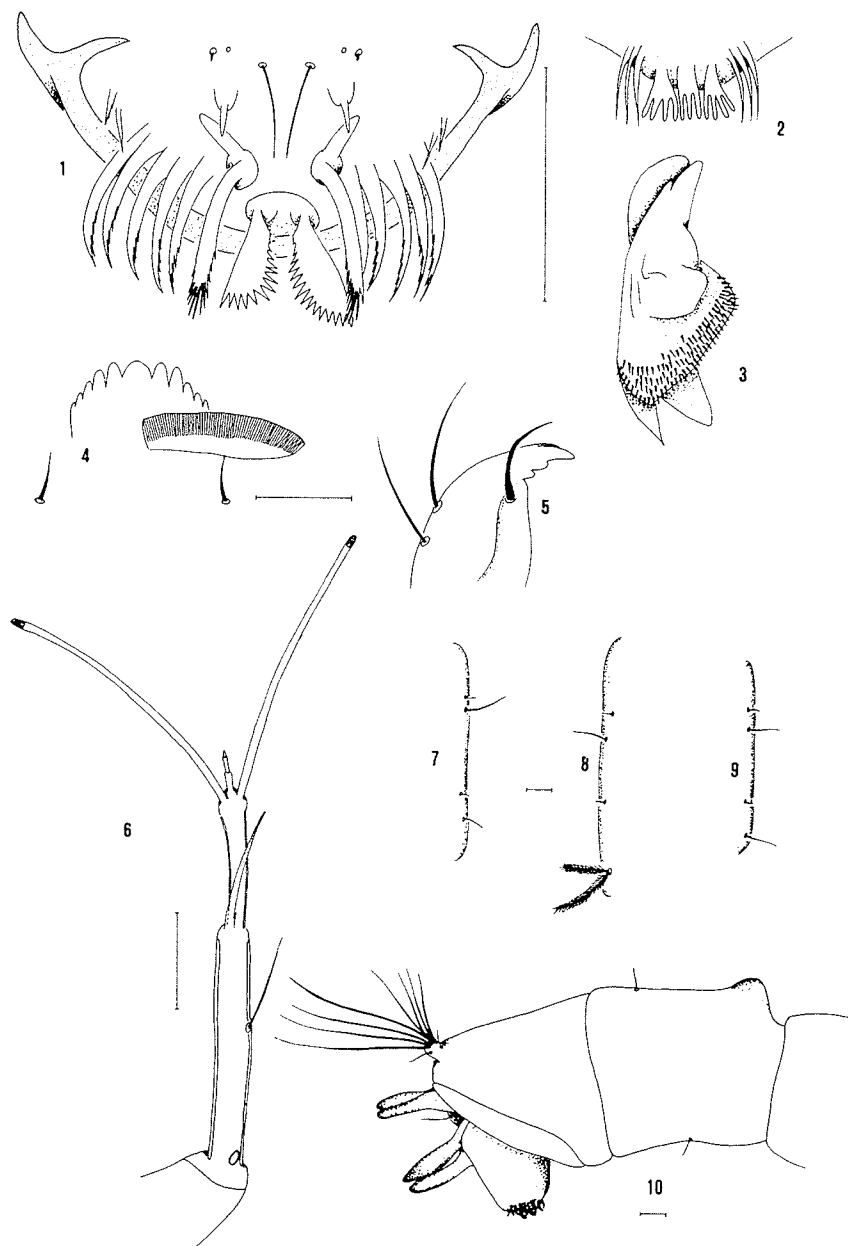
Labrum (fig. 1): SI toothed on the inner margin. SII with slender teeth on the apical part, diminishing in length subapically. SIII long, simple and slender. SIV, a chaeta on a pedestal. Pecten labralis with 20 teeth divided in 2 parts.

Epipharynx (fig. 2): 3 hand-shaped parts, the outer with 4 and the inner with 3 teeth. Chaetae laterales are simple. Premandibula (fig. 3) with 2 distal teeth, partly covered by a thin plate with many microtrichae.

Labium (fig. 4): Broad median tooth and 5 lateral teeth of diminishing size.

Mandibula (fig. 5): Dorsal tooth indistinct.

Antenna (fig. 6): Length, including lauterborn organs, 0.300 mm. Pedestal without apical spur. First segment with a basal annular organ, a median antennal seta and the distal blade, in



Figs. 1-10. *Parapsectra styriaca* (Reiss), larva: 1, labrum; 2, pecten epipharyngis; 3, premandibula; 4, labium; 5, mandibula; 6, antenna; 7, abdominal segment 1; 8, abdominal segments 2-6; 9, abdominal segment 7; 10, abdominal segments 8-9. Scale lines = 0.05 mm.

length subequal to the second segment. Second segment with a small style and 2 small lauterborn organs on very large pedicels. Segments 3-5 small.

Thorax: Anterior parapods with subapical teeth on the small and medium-sized claws.

Abdomen: Segment 1; the 4 lateral setae (LS) are simple. LS 2 and LS 4 longer than LS 1 and LS 3 (fig. 7). Segment 2-6 (fig. 8); LS 4 bifid and plumose, anterior part slightly shorter than posterior part. Segment 7 (fig. 9); LS 2 and LS 4 longer than LS 1 and LS 3. Segment 8 (fig. 10) with a dorsal hump on the anterior part. Posterior parapods with 45 claws. Anal tubercles with a constriction in the proximal part. The 2 setae between the tubercles are short (fig. 10).

Taxonomic notes

Of the five known palaeartic species of *Parapsectra*, *P. styriaca* differs from the other species by the morphology of the male hypopygium, the absence of the digitus and furthermore by the *Krenopsectra*-like superior volsella and the large spoon-shaped setae on the median volsella (see Reiss, 1969a-c, 1971; Siebert, 1979). The shagreenation on the abdominal tergites, the lateral setation on the pleurites and the number of filamentous setae on the anal tergites of the pupa are also not in agreement with the known pupae of *P. uliginosa* Reiss and *P. nana* Reiss (see Reiss, 1969b).

The larval antenna of *P. styriaca* is twice as long as the one of *P. uliginosa*. *P. styriaca* lacks the apical spur on the antennal pedicel. Also the antennal blade is typically *Micropsectra*/*Krenopsectra*-like, in contrast with the very small blade of *P. uliginosa* (see Reiss, 1969b, c). These arguments make it doubtful whether or not *P. styriaca* is indeed a member of the genus *Parapsectra*. Since the knowledge of the genera closely related to *Micropsectra* Kieffer is still very limited (especially so for the larvae and pupae), more evidence is needed to confirm the generic status of *P. styriaca*. The larva shows a striking resemblance to the genus *Micropsectra*, including *M. (Lundstroemia) fusca* (Meigen). All these larvae are characterized by the great number of claws on the posterior parapods (30 in *M. fusca* up to more than 100 in *M. lindrothi* Goetghebuer (Klink, 1982)) compared to the genera *Cladotanytarsus* Kieffer; *Neozavrelia* Goetghebuer; *Paratanytarsus* Thienemann & Bause; *Rheotanytarsus* Bause and *Tanytarsus* van der Wulp which only bear 15 claws on their parapods. In this respect it will be very useful to check up on this neglected apomorph character in the known larvae of *Krenopsectra* Reiss and *Parapsectra*.

Description of the habitat

The habitat in which *P. styriaca* was collected can be described as a ferruginous helokrene, fed by groundwater welling up through a sand/peat association with a peat-layer on the surface. The sample was taken in the moss-covered part of the helokrene with a depth of appr. 10 cm. In winter the area is flooded by water, while in summer some parts dry up. The latter will be the reason for finding *Hydraena britteni* Joy (Coleoptera: Hydraenidae) (Cuppen & Cuppen, 1982) and *Telmatopelopia nemorum* (Goetghebuer) (Diptera: Chironomidae) (Fittkau, 1962).

Other macro-invertebrates collected from the same sample: *Nemoura dubitans* Morton (Plecoptera: Nemouridae), *Beraea pullata* Curtis (Trichoptera: Beraeidae), *Krenopelopia binotata* (Wiedemann), and *Zavrelia pentatoma* Kieffer (Diptera: Chironomidae). They can be characterized as krenophilic. Also larvae of *Neozavrelia* Goetghebuer (Diptera: Chironomidae) were collected. These might be restricted to fields with algae and mosses, overflowed in winter and dried up in summer (Fittkau, 1954).

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