

The immature stages of two halobiont *Diptera*, *Dicranomyia sera* (WALKER) (*Limoniidae*) and *Parascatopse litorea* (EDWARDS) (*Scatopsidae*)

Stadia preimaginalne halobiontycznych *Diptera* — *Dicranomyia sera* (WALKER) (*Limoniidae*) i *Parascatopse litorea* (EDWARDS) (*Scatopsidae*)

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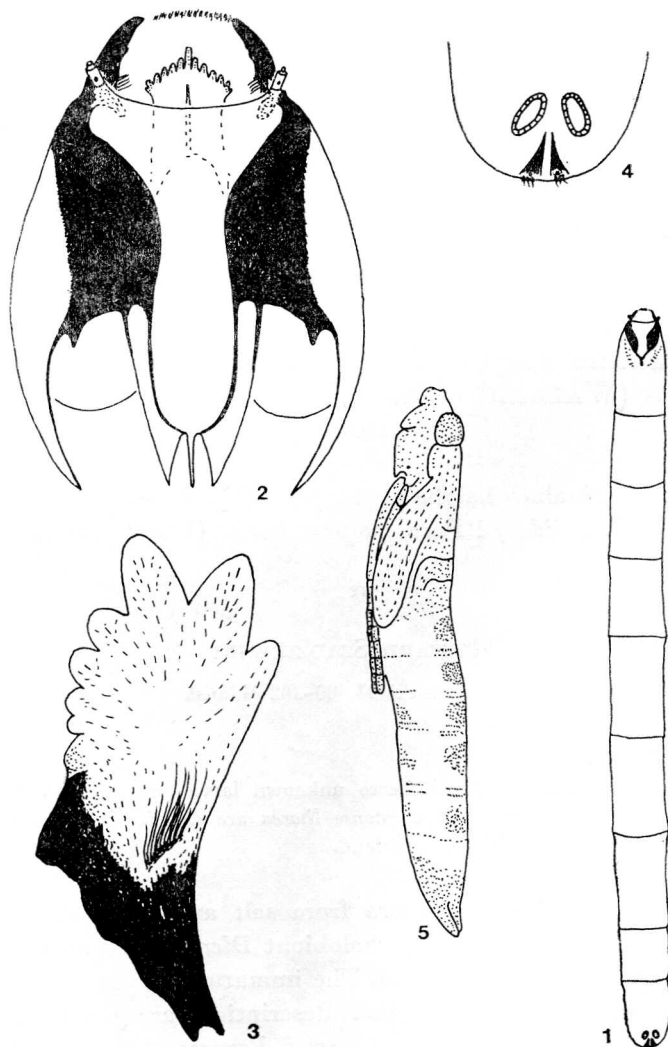
ABSTRACT. The hitherto unknown larva and pupa of *Dicranomyia sera* and larva of *Parascatopse litorea* are described; both species were collected on saltings in Poland.

During my studies on *Diptera* from salt and brackish habitats in Poland, larvae and pupae of the halobiont *Dicranomyia sera* and larvae of *Parascatopse litorea* were found. The immature stages of these species were unknown up to now, and their descriptions are given below. Both species are new to the Polish fauna and *Parascatopse litorea* is new to the Central Europe.

Dicranomyia sera (Walker)

Diagnosis. Labium with 13 teeth. Labium, mandibula and sclerotization of head characteristically shaped. Pupa without diagnostic features.

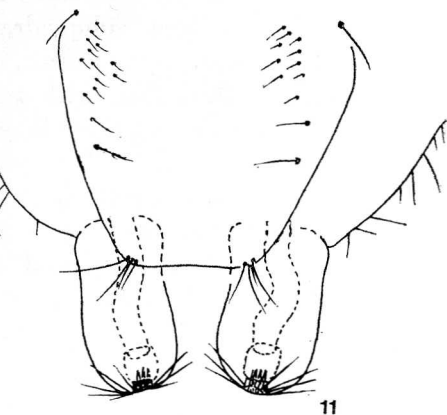
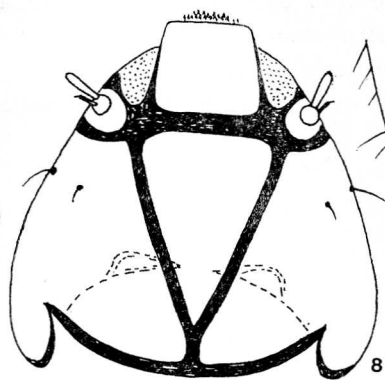
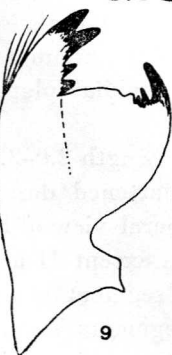
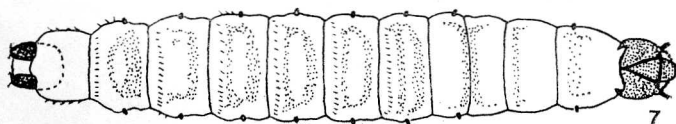
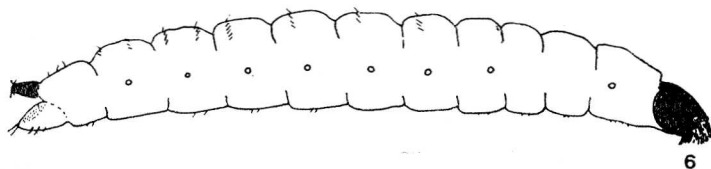
Description. Larva. Length to 10 mm. Body white with two black patches of strongly sclerotized genae plates on dorsum (fig. 1). Antenna two-segmented, with ring-shaped organ on the first article; the second article small, mammilliform. Labium with 13 teeth, middle tooth narrow



1-5. *Dicranomyia sera* (WALKER). 1 — larva, dorsally, 2 — head, 3 — mandibula, 4 — apical segment, 5 — pupa, laterally

and blunt (fig. 2). Mandibula large, stout, with 7 teeth (fig. 3). The apical body segment with a pair of stigmata which obliquely converge on each other. There are two triangular, stronger sclerotized plates distally from stigmata, each with 4 small setae on its end (fig. 4).

Pupa. Length 7-8 mm. Thorax and parts of abdomen strongly sclerotized, clear brown. Thoracic horn somewhat dark, ear-shaped (fig. 5).



6-11. *Parascatopse litorea* (EDWARDS). 6 - larva, laterally, 7 - larva, dorsally, 8 - head, 9, 10 - mandibula, 11 - apical segment

Material examined. Several larvae and pupae collected from salt soil covered with *Salicornia patula* DUVAL-JOUVE and *Triglochin maritimum* L. in Inowrocław-Matwy (Kujawy, Central Poland), May 1974, 1975; and several larvae from brackish soil in Owczary near Busko Zdrój (South Poland), June 1975.

Imagines of this species were kindly identified by Dr. J. STARÝ, Olomouc, Czechoslovakia.

Geographic distribution. Europe, Mongolia, Afghanistan (STARÝ, ROZKOŠNY, 1970).

Parascatopse litorea (Edwards)

Diagnosis. Unlike other known *Scatopsidae* larvae, which have 2 lamellar appendages on the pygidial plate and 3 antennal articles (HENNIG, 1968), *Parascatopse litorea* has simple pygidial plate and 2 antennal articles.

Description. Larva (III or IV stage). Length 2.0–2.5 mm. Body dark with strongly sclerotized integument, flattened dorso-ventrally. Head and tubular appendages clear brown. General view of larva: figs 6 and 7. Stigmas peripneustic, i.e., on all segments except II and III. First eight pairs of stigma normal, stigmas of apical segment on tubular appendages (fig. 11). Body almost glabrous, except segments V–XI with small setae. Head strongly sclerotized, with thick suturae: frontalis, short coronalis, epistomalis. Clypeus large, subquadrate (fig. 8); dorsal side of genae plates with two setae. Eyes absent. Antennae with 3 articles. Basal segment oval, flagellum fine, with two articles. Near flagellum large cudgel seta, which is about 2 times longer than the flagellum. Mandibula: figs 9–10. Labium reduced.

Material examined. Many larvae collected from salt soil covered with *Salicornia patula* DUVAL-JOUVE and *Aster tripolium* L. in Inowrocław-Matwy and Aleksandrów Kujawski (Kujawy, Central Poland) from April to July 1974 and 1975.

Geographic distribution: Great Britain, Sweden (COOK, 1969).

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