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## A description of the mature larva of *Oxytelus fulvipes* ERICHSON, 1939 (Coleoptera: Staphylinidae)

BERNARD STANIEC

Department of Zoology, Maria Curie-Skłodowska University, Akademicka 19, 20-033 Lublin,  
Poland

ABSTRACT. The third instar larva of *Oxytelus fulvipes* ERICHSON is described, the illustrations of structural features provided. Some differences in morphological structure between the larvae of *O. fulvipes* and *O. piceus* (L.) are also illustrated.

Key words: Entomology, morphology, larva, *Coleoptera*, *Staphylinidae*, *Oxytelus fulvipes*.

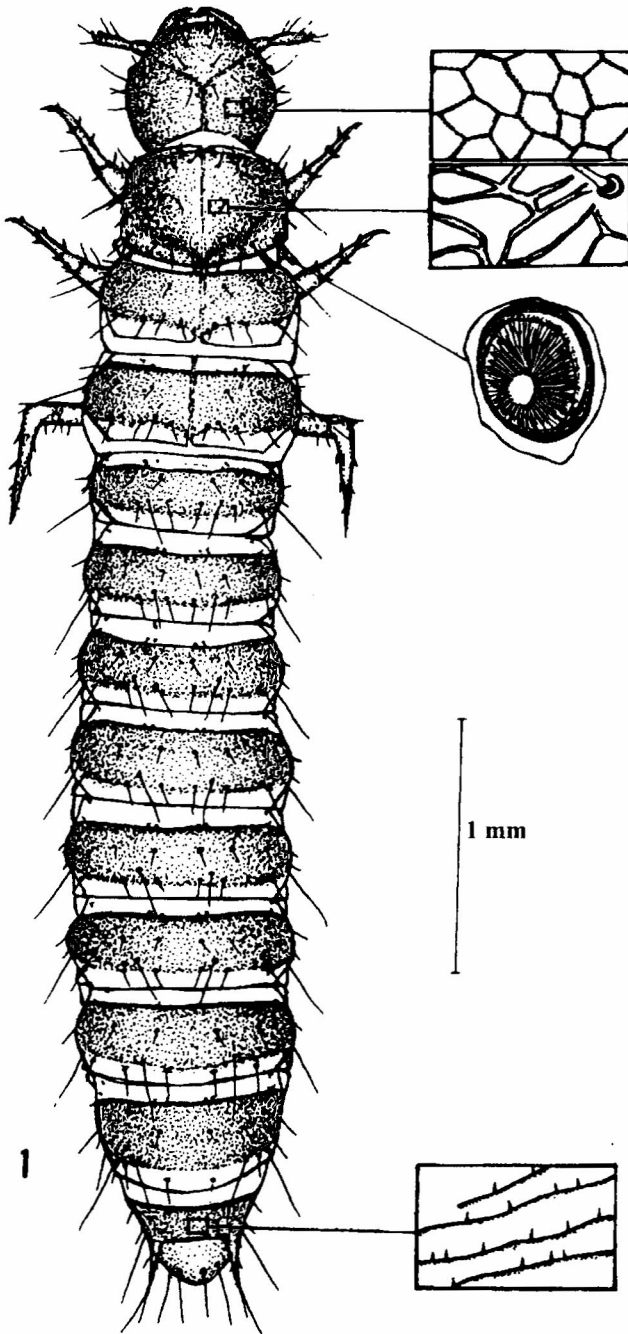
### INTRODUCTION

*Oxytelus fulvipes* is a European species. It was recorded from northern Europe, England, whole Central Europe, France, northern Italy, Yugoslavia and Romania. In Poland it is known from several localities. KOCH (1989) defined it as a stenotopic, hygrophilous and phytodetricolous species. It occurs from spring till autumn in shaded swampy forests, on peat-bogs, shores of water reservoirs, under stones, in rotten plant remains and leaf litter (BURAKOWSKI et al. 1979, KOCH 1989).

Larva of *O. fulvipes* has not been described previously. The morphology of larvae of other members of *Oxytelus* as well as of closely related genera were described by HINTON (1944), KASULE (1968), LEGNER & MOORE (1977), PAULIAN (1941), PIERRE (1944), POTOCKAYA (1967), STANIEC (1992, 1993) and TOPP (1978).

### MATERIAL AND METHODS

The adult as well as the third (last) larval instar of *O. fulvipes* were collected in Garbatówka near Łęczna (mid part of eastern Poland) on 25 July 1995. They were collected by sifting leaf litter in a shaded swampy forest. Some of the larvae were

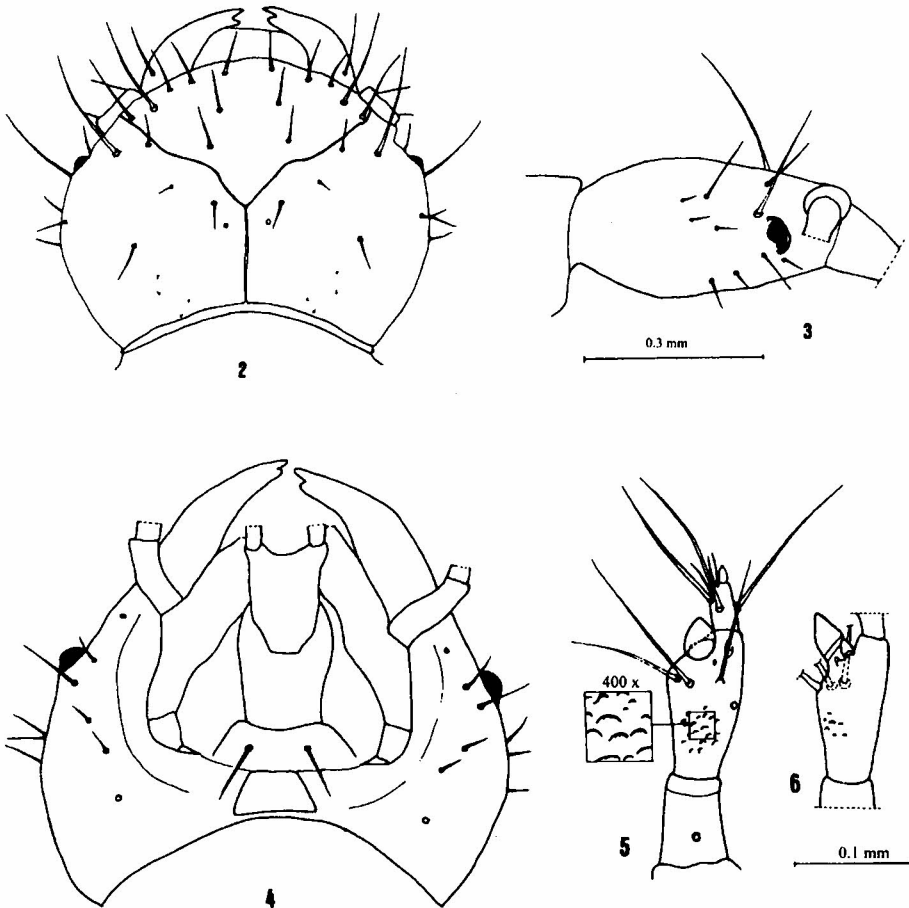


1. Larva of *O. fulvipes*, instar III

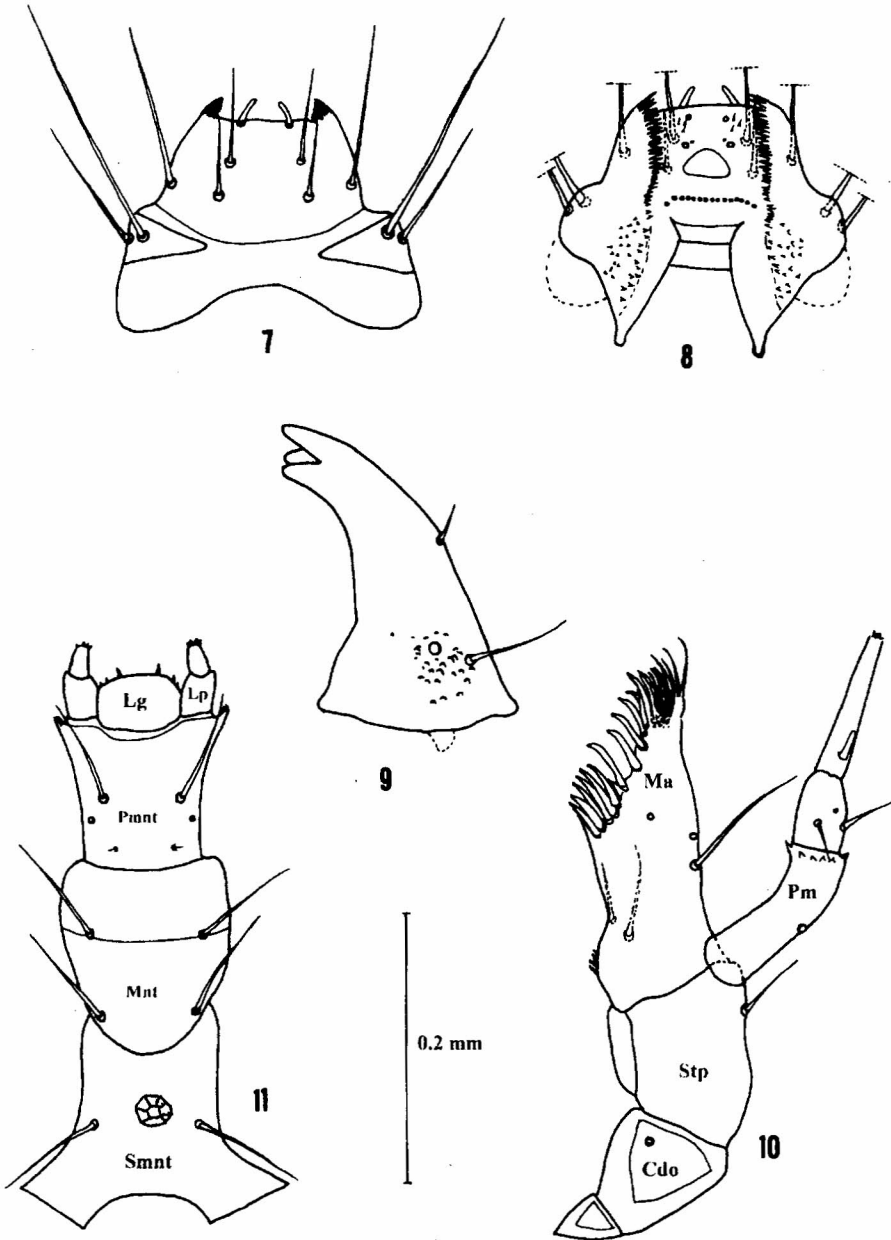
reared to pupation and coming out of the adults. Then the species was identified by author. The remaining larvae were preserved in 70% ethanol with an addition of glycerol. Then they were rinsed in distilled water and cleared in chloralphenol and chloralhydrate. The morphology of larva was described on the basis of 10 specimens.

## DESCRIPTION

Body length 4.0-5.5 mm, head width 0.63-0.68 mm. Body elongated, slightly dorso-ventrally flattened (Fig. 1). Head and tergites in central part brown, slightly gradually darkening toward posterior segments. Sternites in central part and urogomphi

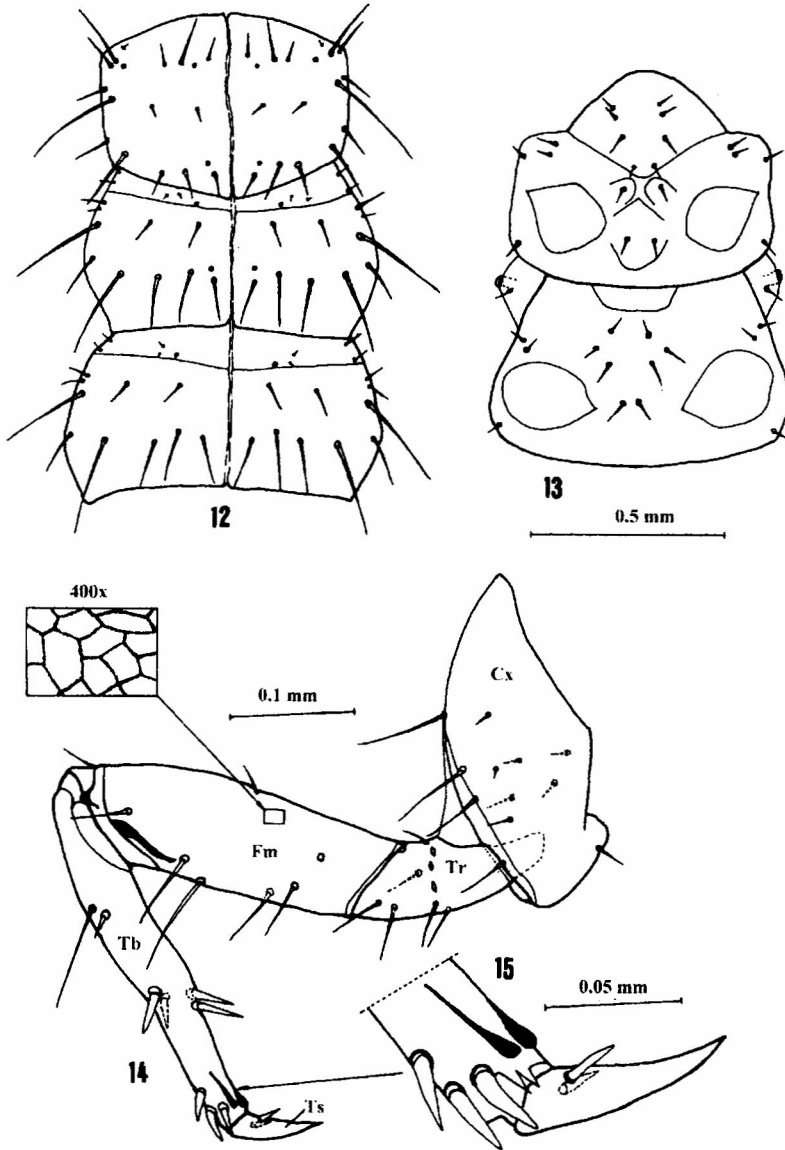


2-6. *Oxytelus fulvipes*, larval instar III: 2 - head, dorsal aspect, 3 - head, lateral aspect, 4 - head, ventral aspect, 5 - right antenna, dorsal aspect, 6 - second segment of antenna, ventral aspect



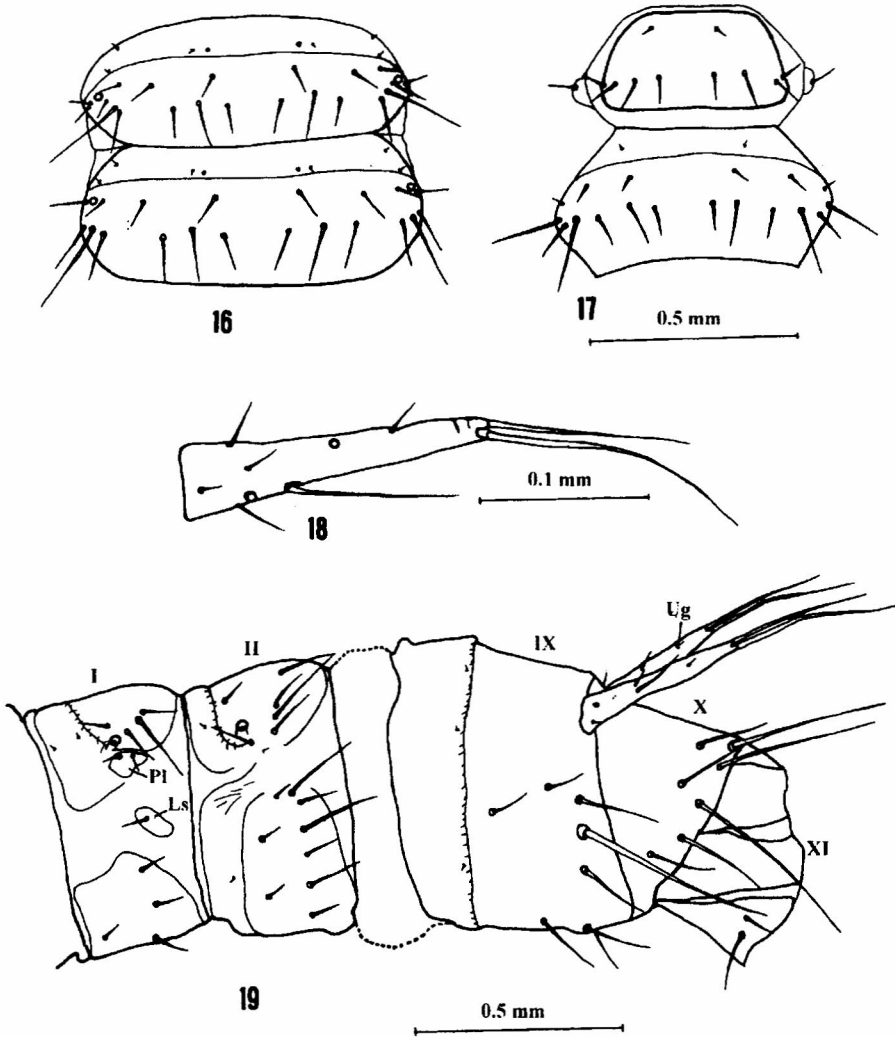
7-11. *Oxytelus fulvipes*, larval instar III: 7 - labrum, dorsal aspect, 8 - labrum, ventral aspect, 9 - right mandible, dorsal aspect, 10 - right maxilla, dorsal aspect, 11 - labium, ventral aspect

light-brown, legs and antennae yellow-brown. Front and back of all tergites and sternites lighter and less sclerotized than their central parts. Head with reticulate microsculpture. Microsculpture of thoracic and abdominal tergites as in Figs 1, 27. All sclerites with simple, light-brown setae.



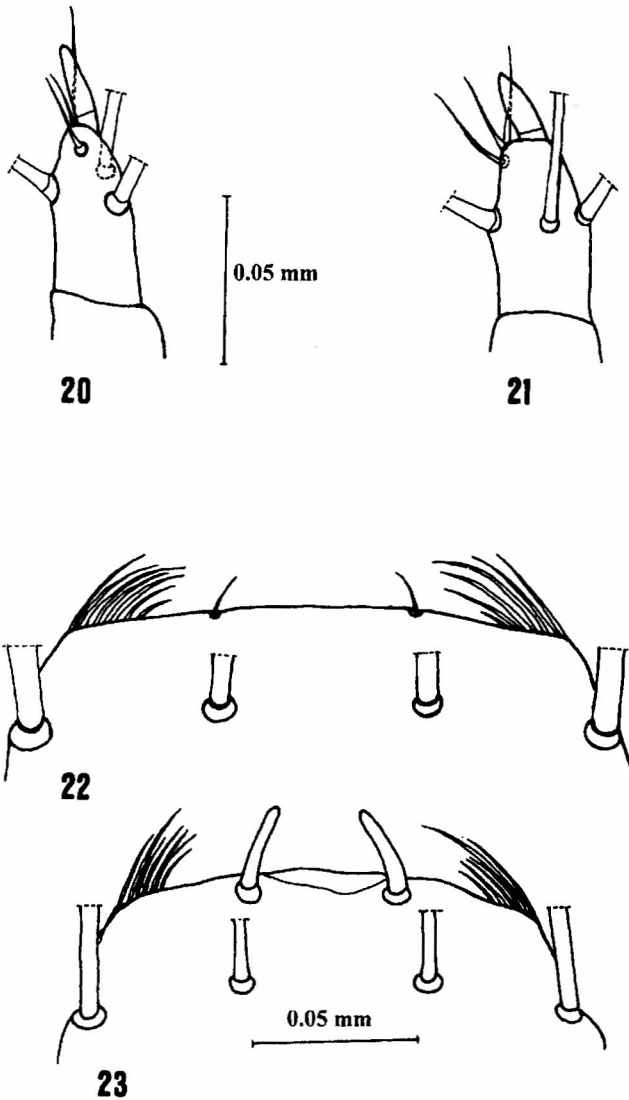
12-15. *Oxytelus fulvipes*, larval instar III: 12 - thorax, dorsal aspect, 13 - thoracic segments I and II, ventral aspect, 14 - fore leg, anterior view, 15 - apical part of tibia and tarsungulus, anterior view

Head (Figs 2-4) distinctly wider than long, rounded on sides, with 1 black stemma on each side. They distinctly stick out of head's contour. Antenna 3-segmented (Figs 5, 6). Segment I longer than III, with 1 pore. Segment II almost twice longer than I, with tiny protuberances, 3 setae, 1 pore and 3 dome-shaped accessory sensory appendages, the biggest one situated latero-apically, other ventro-apically. Segment III with 6 setae and 1 apical accessory sensory appendage narrowed toward



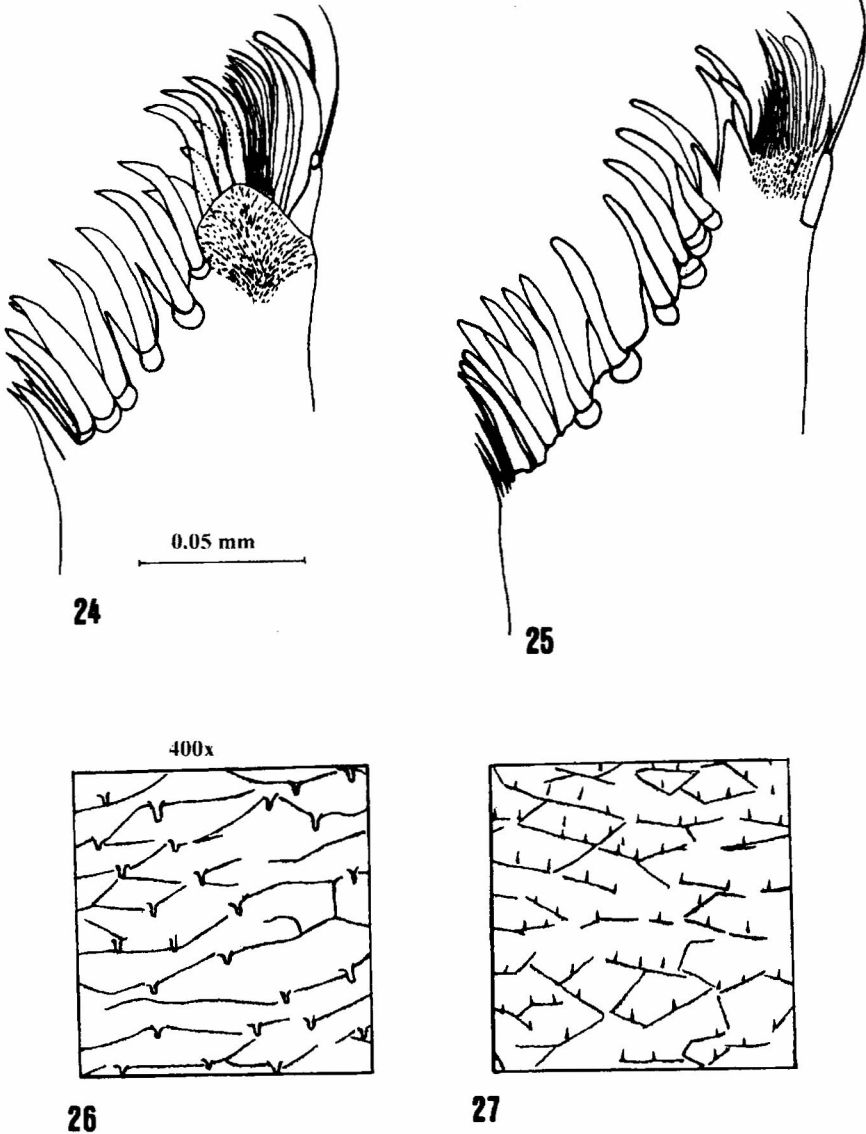
16-19. *Oxytelus fulvipes*, larval instar III : 16 - abdominal tergites I and II, 17 - abdominal sternites I and II, 18 - left urogomphus, dorsal aspect, 19 - abdominal segments I, II, IX, X and XI, lateral aspect

top (Fig. 21). Labrum (Figs 7,8) approximately trapeziform, its base over twice wider than anterior margin. Dorsal surface with 10 long setae. Besides, at anterior margin 2 short, thick and blunt setae (Fig. 23). Adoral side of labrum with 2 rows of cuticular processes. Mandible (Fig. 9) relatively short and stout, with 3 apical teeth, 1 pore and 2 setae. Their surfaces close by pore and longer seta with tiny protuberances. Maxilla (Fig. 10) consists of triangular cardo (Cdo), wide stipes (Stp), mala (Ma) and



20-23. Larval instar III. 20, 21, third segment of antenna: 20 - *Oxytelus piceus* (L.), 21 - *Oxytelus fulvipes*, 22, 23 - anterior part of labrum. 22 - *Oxytelus piceus*, 23 - *Oxytelus fulvipes*

maxillary palp (Pm). Cardo with 1 pore, stipes with 1 seta, mala with 3 setae and 2 pores. Inner margin of mala with about 20 long, curved teeth and bunch of setae (Fig. 25). Maxillary palp 3-segmented. Segment I with 1 pore, II with 1 pore and 2 setae, III with 1 digital sensory appendage. Segment I almost as long as III. Last segment



24-27. Larval instar III: 24, 25 - mala: 24 - *Oxytelus piceus*, 25 - *Oxytelus fulvipes*; 26, 27 - microsculpture of anterior abdominal tergites: 26 - *Oxytelus piceus*, 27 - *Oxytelus fulvipes*



twice longer than II. Labium (Fig. 11) consists of submentum (Smnt), clypeate mentum (Mnt), trapeziform prementum (Pmnt) separated from ligula (Lg) and 1 pair of 2-segmented labial palps. Submentum with 2 long setae, mentum with 4 long setae, prementum with 2 long setae, 2 short setae and 2 pores. Prementum twice longer than ligula. Ligula broadly rounded, separated from prementum by basal slightly sclerotized region.

Thorax. Pro-, meso- and metanotum (Fig. 12) each with mid-longitudinal, light line. Pro- and metanotum are the longest and widest segments of thorax, respectively. Sternites with short setae (Fig. 13). Leg consists of 4 segments and tarsungulus (Figs 14, 15). Coxa (Cx) with 12 setae, triangular trochanter (Tr) with 6 setae and 3 campaniform sensilla. Femur (Fm) distinctly shorter than slim tibia (Tb), with 7 setae, 1 pore and surface of reticulate microsculpture. Tibia and transungulus (Ts) with 9 (only 1 long and tiny) and 2 thick, spine-shaped setae respectively.

Abdomen widens gradually and slightly toward segment VII, widest segment of body. Segments I-VIII with tergites and sternites (Figs 16, 17). Besides, 2 pleurites (Pl) and 2 laterosternites (Ls) situated on sides of segment I. Structure of segments IX and X different from that of other segments; their dorsal and ventral sclerites grow into uniform rings, surrounding segments. Urogomphus (Ug) with 8 setae (2 long, apical setae) and 2 pores (Fig. 18, 19).

The larva of *O. fulvipes* belongs to peripneustic type. Of 9 pairs of spiracles, the first occurs on either side of body, between segments I and II of thorax (Fig. 1), the remaining ones are on the lateral parts of the first 8 abdominal tergites (Figs 1, 13, 18).

#### CONCLUSION

Apart from *O. fulvipes* two other species of *Oxytelus* occur in Central Europe, *O. laqueatus* (MARSHAM) and *O. piceus* (L.). The larva of the last species was described by STANIEC (1992). Some differences in morphological structure between the larva of *O. piceus* and *O. fulvipes* are illustrated (Figs 20-27). They involve the following features: (1) shape of the apical accessory sensory appendage of the antenna (Figs 20, 21); (2) type of setae at the anterior margin of labrum (Figs 22, 23); (3) structure of mala (Figs 24, 25); (4) microsculpture of abdominal tergites (Figs 26, 27).

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