

Munstermann 1992). According to variable morphological characteristics in European populations, it is feasible to expect more sibling species of the complex in Europe as well. However, electrophoretic analysis of populations from northern Sweden and Germany has not provided evidence of any differences (Weitzel et al. 1998).

Ochlerotatus (Ochlerotatus) communis
(De Geer 1776)

Female: The proboscis and palps are dark scaled, the palps rarely have a few white scattered scales. The scutal scale pattern is rather variable, but typically the scutum is covered with yellow to golden scales. A broad median stripe and posterior submedian stripes of dark bronze scales are present. They are separated by narrow stripes of pale scales, which are sometimes fused. The scutellar and supraalar setae are dark brown. A postprocoxal scale patch is absent (Fig. 6.47b), the hypostigmal patch is usually absent, or occasionally with only a few pale scales. The upper mesepisternal patch extends to the level of the anterior angle, and the mesepimeral patch extends to the lower margin of the mesepimeron (Figs. 6.45b and 6.46a). Lower mesepimeral setae are present. The femora, tibiae, and tarsomeres I of all legs are mostly dark scaled dorsally and with a few whitish scales ventrally, the remaining tarsomeres are dark scaled. The tarsal claws are curved with a long subbasal tooth. The wing veins are covered with dark scales, and a few pale scales are scattered at the base of the costa (C) and radius (R). The terga are dark scaled with broad basal bands of white scales.

Male: The lobes of tergum IX are covered with 8–10 short spine-like setae. The hypopygium is similar to that of *Oc. pionips* (Fig. 10.32). The basal lobe of the gonocoxite is rounded, concave at its lower part, with one long, strong spine-like seta. Mesal to it, is a row of closely spaced, inwardly directed long setae. The upper part of the basal lobe has a row of long, prominent, widely spaced, apically strongly curved, or sometimes hooked setae. The apical lobe of the gonocoxite is well developed and rounded apically. The paraproct is strongly sclerotized apically. The claspette stem is long, and the claspette filament is shorter than the stem, and

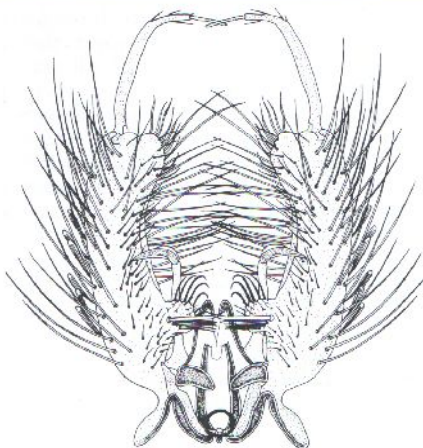


Fig. 10.32 Hypopygium of *Oc. communis*

heavily sclerotized with a narrow unilateral wing. The aedeagus is conical, rounded, and notched at the apex.

Larva: The antenna is nearly half as long as the head, and the antennal seta (1-A) is situated at about the middle of the antennal shaft, with 6–7 branches. The median frontal seta (6-C) is situated in front of the inner frontal seta (5-C), both setae are single and rarely one seta has 2 branches. The outer frontal seta (7-C) has 4–8 branches (Fig. 8.41a). The number of comb scales varies from 40–70, but the average is 60 scales (Fig. 10.33). The scales are arranged in an irregular triangular patch, each individual scale without a prolonged terminal spine, thus appearing to be rounded apically. The siphonal index is 2.3–3.2, usually about 2.8. The pecten has 17–26 evenly and closely spaced teeth which do not extend to the middle of the siphon. The siphonal tuft (1-S) has 5–9 branches which are about as long as the width of the siphon at the point of insertion. The saddle extends about 3/4 down the sides of the anal segment, and the saddle seta (1-X) is distinctly shorter than the saddle, and is single. The ventral brush has 2, rarely 3, precratal setae (4-X). The anal papillae are distinctly longer than the saddle.

Biology: *Oc. communis* is usually a monocyelic snow-melt mosquito, which is one of the most frequent mosquitoes of swampy forests. The preferred

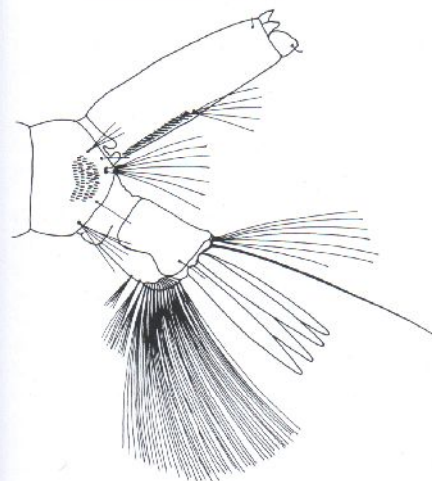


Fig. 10.33 Larva of *Oc. communis*

breeding sites are acidic water bodies which are filled with water during the snow-melt or spring rainfall. Larvae can mainly be found in depressions and ditches without vegetation but with a dense layer of dead leaves at the bottom. Often they are found in strongly acidic waters, e.g. with *Sphagnum* sp., with a pH-value of little more than 3.0. They appear only rarely or are absent in waters with neutral reaction, e.g. in inundated areas of large rivers. Most of the larvae hatch at temperatures of little more than 0°C, when the breeding sites are still partly covered with ice. In central Europe the larvae hatch from February onwards, adults emerge usually in April. In the laboratory, the optimum temperature for larval development is 25°C. At this temperature the development to the adult stage is completed within 18 days, but above 30°C and below 4°C the development is not completed. In central Europe, females are troublesome for warmblooded creatures in forest areas from April onwards, particularly during twilight. Females do not migrate long distances from the breeding sites. Usually the population decreases from July on, but Scherpner (1960) found isolated freshly hatched larvae of *Oc. communis* in August.

Distribution: Holarctic, North America, and Eurasia. The species is found from northern Europe to the Mediterranean area.

Ochlerotatus (Ochlerotatus) cyprius
(Ludlow 1920)

Female: A large species with a light integument and golden to yellowish scaling. Natvig (1948) described *Oc. cyprius* as variable in colour, the golden tinge is sometimes lost and the scales are more or less whitish or yellowish orange in some specimens. It is similar to *Oc. flavescens*, and for separation of the two species, see the description of the latter. The proboscis is yellowish with a few dark scales at the labellum. The palps are 1/4 of the length of the proboscis, with mixed golden and greyish scales. The head is pale scaled, with some dark scales laterally. The antenna is yellowish at the base, with the distal flagellomeres more brownish. The integument of the scutum is light brown with yellowish and golden narrow scales, and sometimes a weak dark median stripe and short dark lateral stripes are present. The postpronotum has narrow golden scales and golden setae. A postprocoxal patch is present. The mesepisternum has two separate cream coloured scale patches, the lower patch reaching the anterior margin. The mesepimeral scale patch nearly reaches the lower margin of the mesepimeron, and the lower mesepimeral setae are present (Fig. 6.29b). The fore and mid femora have yellowish scales mixed with dark ones, the hind femur apically has dark scales, and yellowish knee spots but these are usually indistinct. The tibiae are predominantly yellowish scaled with scattered black scales, which are more numerous towards the apical parts of the mid and hind tibiae. The tarsomeres have broad, yellowish basal rings and dark scaling apically, which is more pronounced at the mid and hind legs. The wing veins are yellow scaled with scattered dark scales. The abdomen dorsally and ventrally has ochre yellowish broad scales mixed with isolated dark scales, and the terga sometimes have more dark scales laterally which never form a continuous transverse band. The cerci are predominantly dark scaled.

Male: Tergum IX has 6–11 spine-like setae on each of the lateral lobes. The gonocoxite is long and slender, and the basal lobe is well developed, with one spine-like seta and several long setae of different widths (Fig. 10.34). The apical lobe is prominent with rather short setae. The gonostylus is long and slender, with an elongated apical spine. The paraproct has a sclerotized and recurved tip. The claspette stem is long and slender, and evenly curved. The claspette filament