

Dorylomorpha

Males

1. Segment 8 without a membranous area; antennal segment 3 narrow, tapering to a long slender point (sg. *Dorylomorpha*) 2
- Segment 8 with membranous area, in those cases where it is small and difficult to see then antennal segment 3 shorter and broader..... 5
2. Surstyli strikingly large, triangular and clearly visible protruding below the abdomen in pinned material (Fig. 1) *confusa*
- Surstyli smaller, not conspicuously protruding below the abdomen (Fig. 2)..... 3

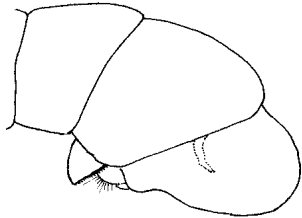


Fig. 1. *D. confusa* apex of abdomen showing surstyli.

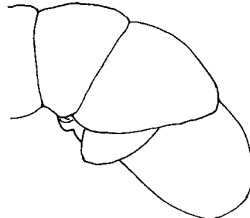


Fig. 2 *D. rufipes* apex of abdomen

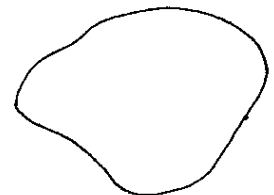


Fig. 3 *D. rufipes* sternite 8 from behind

3. Segment 8 about as long as tergite 5 measured along dorsum (Fig. 2); from behind segment 8 sinuous on left side (Fig. 3) *rufipes*
- Segment 8 about half to two thirds the length of tergite 5 when measured along dorsum; from behind segment 8 more evenly rounded..... 4
4. Trochanters usually yellowish (if with any black on trochanters then surstyli must be examined); surstyli dorsally with discrete sharp, hook-like protrusion towards tip (Fig. 4) *imparata*
- Trochanters brown or black at least in part; surstyli dorsally with broad, roundly triangular protrusion towards tip (Fig. 5) *extricata*



Fig. 4 *D. imparata* left surstylus

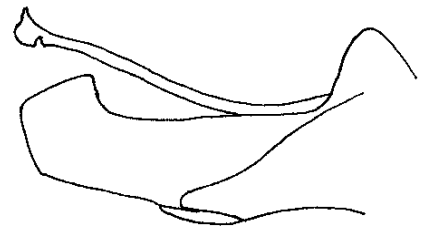


Fig. 5 *D. extricata* left surstylus

5. Hind tibia with a distinct anterior bristle at middle (at least as long as tibia is wide at that point), can be difficult to see especially if laying almost flat (Fig. 6) 6
- Hind tibia without such a bristle (sg. *Dorylomyza*)..... 8

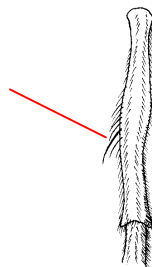


Fig. 6 *D. maculata* hind tibia

6. Postpronotal lobe yellow; legs almost entirely yellow; eyes very closely approximated; segment 8 short with round membranous area on right hand side (sg. *Pipunculina*)..... *maculata*
- Postpronotal lobe dark; at least femora mainly black; eyes separated by at least width of front ocellus 7
7. Legs dark except for paler knees; eyes separated by width of front ocellus; segment 8 short with membranous area taller than wide and only slightly on the right of the segment; sternite 7 not protruding (Fig. 7) (sg. *Dorylomyia*) *beckeri*

- Legs much more extensively yellow; eyes separated by at least twice the width of front ocellus; segment 8 larger and longer with round membranous area on right hand side; sternite 7 strongly developed and protruding, clearly visible in side view in pinned material (Fig. 8) (sg. *Dorylomyza*)..... ***albitarsis***

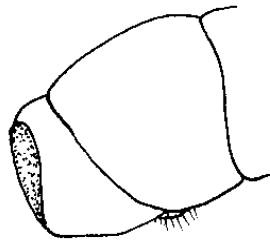


Fig. 7 *D. beckeri* tip of abdomen

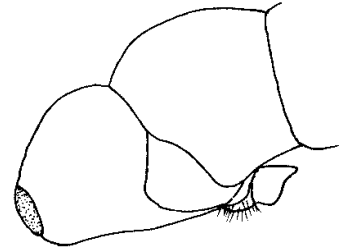


Fig. 8 *D. albitarsis* tip of abdomen

- 8. Femora mostly black, at most narrowly yellowish at base and on apical third; tibia dark on apical half or with dark band at middle (Fig. 9)..... 9
- Front and mid femora mostly yellow, at least on base and on apical half dorsally and, usually more than apical two thirds ventrally, hind femora similar but may be slightly more extensively darkened; tibia entirely yellow or brownish yellow (Fig. 10)..... 14

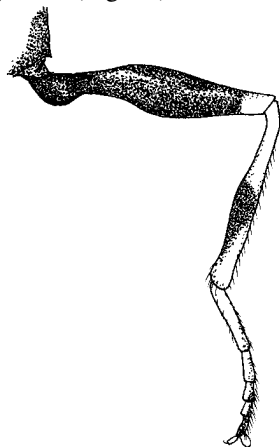


Fig. 9 *D. hungarica* hind leg.

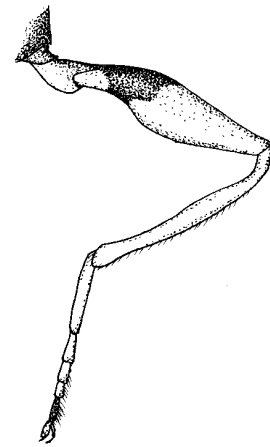


Fig. 10 *D. fennica* hind leg.

- 9. Segment 8 very large, truncated, in dorsal view half the length of tergite 5, higher than long with very large oval membranous area viewed from behind more than half height of segment 8 (Fig. 11)..... 10
- Segment 8 smaller, without truncated appearance, in dorsal view at least two thirds the length of tergite 5, as long as it is high with a small, roundish membranous area (Fig. 8)..... 11
- 10. Outer side of right surstylus at base with smoothly rounded bulge (usually visible without dissection but can be difficult to discern in pinned material) (Fig. 12)..... ***hungarica***
- Outer side of right surstylus at base with large conspicuous bulge, distally making an angle of nearly 90 degrees with the main part of the surstylus (usually visible without dissection but can be difficult to discern in pinned material) (Fig. 13)..... ***haemorrhoidalis***

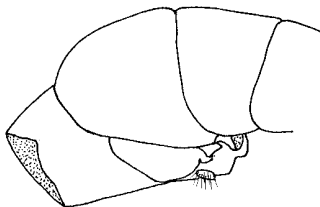


Fig. 11 *D. hungarica* tip of abdomen.

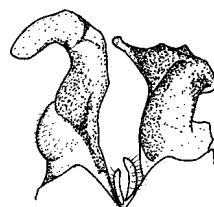


Fig. 12 *D. hungarica* from below.

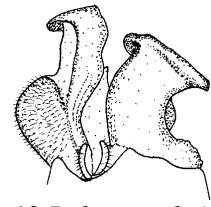


Fig. 13 *D. haemorrhoidalis* surstyli from below.

- 11. Femora extensively darkened, no more than apical quarter yellow; hind tibia usually with 1 or 2 bristly hairs antero-medially (see Fig. 6); sternite 7 strongly developed and protruding, clearly visible in side view in pinned material (Fig. 8) ***albitarsis***
- Femora paler with about apical third yellow; no such bristly hairs on tibia; sternite 7 not protuberant 12
- 12. Viewed ventrally right surstylus highly modified, hammer-shaped (Fig. 14)..... ***clavifemora***
- Viewed ventrally right surstylus relatively simple coming to a blunt point..... 13

- 13 Viewed ventrally right surstylus only slightly bent inwards, left surstyli with conical protuberance on outer side near tip (Fig. 15) *infirmata*
- Viewed ventrally right surstylus strongly bent and overtopping left surstylus, left surstylus with a peg-like protuberance on the outer side as well as a smaller one pointing away from the body *occidens*

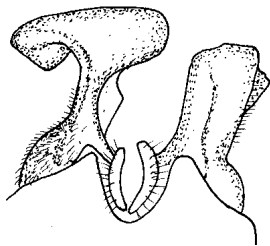


Fig. 14 *D. clavifemorata* from below

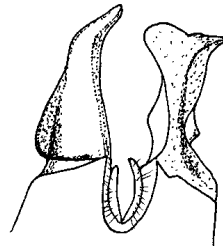


Fig. 15 *D. infirmata* surstyli from below

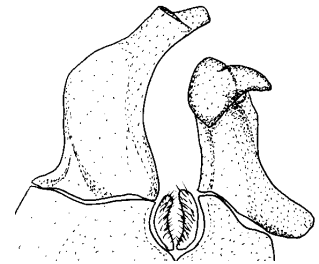


Fig. 16 *D. occidens* from below

- 14. Large, robust species, wing length 4.7-5.5mm; abdomen rather clavate entirely black; membranous area on segment 8 large and conspicuous, usually at least half the height of segment (Fig. 17); viewed ventrally left surstylus with triangular apical projection on outer side (Fig. 18) *fennica*
- Smaller species, wing length 3.2-4.9; abdomen more typical, not conspicuously clavate; membranous area on segment 8 small and rounded (Fig. 19) 15

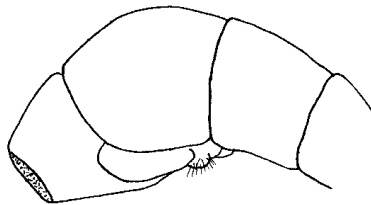


Fig. 17 *D. fennica* tip of abdomen

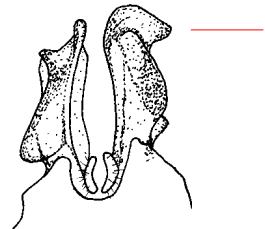


Fig. 18 *D. fennica* surstyli from below

- 15. Right surstylus rounded apically, particularly in lateral view (Fig. 20); eyes separated by at least the diameter of front ocellus; femora often black sub-basally (as in Fig. 10); tergites usually entirely black *xanthopus*
- Right surstylus hooked apically, most noticeable in lateral view (Fig. 21); eyes very closely approximated, about half the diameter of front ocellus; legs usually entirely yellow (occasionally an incomplete blackish band on hind femora); tergites often with conspicuous yellow patches *anderssoni*

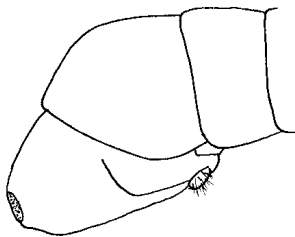


Fig. 19 *D. xanthopus* tip of abdomen

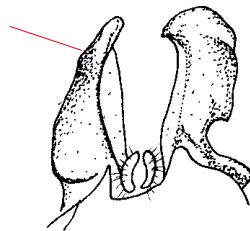


Fig. 20 *D. xanthopus* surstyli from below

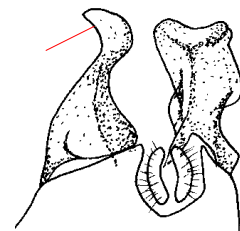


Fig. 21 *D. anderssoni* surstyli from below

Females

- 1. Basal part of ovipositor yellowish or brown, at most blackened at extreme base, with a variable and irregular depression on the ventral side due to weaker sclerotisation (Fig. 22, Fig. 24) (sg. *Dorylomyza*) 2
- Basal part of ovipositor without a ventral depression, black, at most extreme distal end paler (Fig. 23) 9

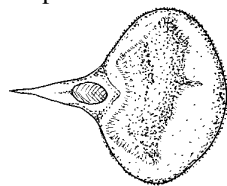


Fig. 22 *D. hungarica* ovipositor from below

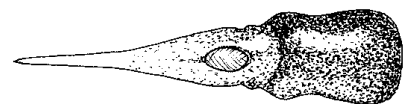


Fig. 23 *D. confusa* ovipositor from below

- 2. Basal part of ovipositor wider (Fig. 22) or as wide as long (Fig. 24); basal part covered with a dense pubescence of minute curved hairs thus surface entirely matt 3
- Basal part of ovipositor longer than wide, gently tapering into piercer 5

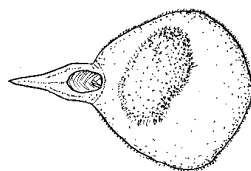


Fig. 24 *D. haemorrhoidalis* ovipositor from below

- 3. Basal part of ovipositor wider than long, angle between basal part and piercer not much more than 90 degrees (Fig. 22) *hungarica*
- Basal part of ovipositor about as wide as long (Fig. 24) 4
- 4. Basal part of ovipositor as wide as tergite 6; piercer bulbous basally on dorsal side (Fig. 25).... *haemorrhoidalis*
- Basal part of ovipositor narrower than tergite 6; base of piercer not bulbous but with rather pointer protrusion dorsally (Fig. 26)..... *clavifemora*

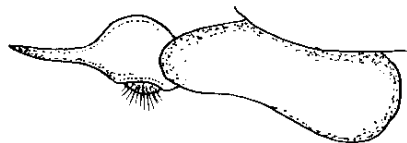


Fig. 25 *D. haemorrhoidalis* ovipositor from side

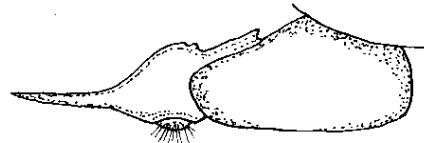


Fig. 26 *D. clavifemora* ovipositor from side

- 5. Legs extensively black, at most tip of coxae, femora at extreme base and apical third, tibia on base and tip and basal tarsal segments paler yellowish (Fig. 27)..... 6
- Legs extensively yellow, at least base and apical half of femora, all tibiae and all but apical tarsal segments yellow (Fig. 28)..... 7

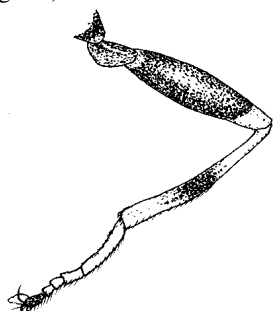


Fig. 27 *D. infirmata* hind legs

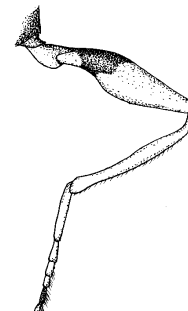


Fig. 28 *D. fennica* hind legs

- 6. Piercer with distinct keel above (Fig. 29); in ventral view with distinct flanges and broadest at base (Fig. 30); hind tibia dark except for basal quarter *albitarsis*
- Piercer evenly rounded at base dorsally (Fig. 31); in ventral view with distinct flanges widest well beyond the base (Fig. 32); hind tibia brownish yellow with blackish band around middle (Fig. 27)..... *infirmata*



Fig. 29 *D. albitarsis* ovipositor from side

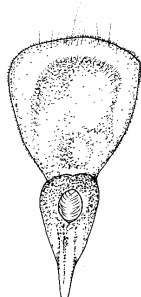


Fig. 30 *D. albitarsis* ovipositor from below

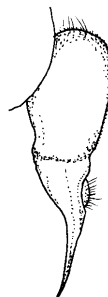


Fig. 31 *D. infirmata* ovipositor from side

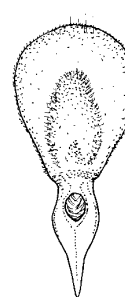


Fig. 32 *D. infirmata* ovipositor from below

- 7. Shorter wing, length 2.6-3.8mm, decidedly short relative to body length especially beyond cross vein dm-cu, distal part of m1+2 distinctly sinuate and parallel with r4+5 just before wing tip (Fig. 33); ovipositor 0.86-1.02mm as in Fig. 35& Fig. 36 *xanthopus*
- Longer wing, length 4.1-4.7mm..... 8

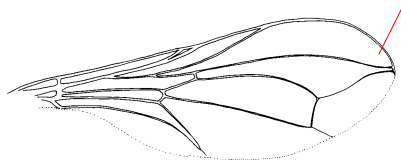


Fig. 33 wing of *D. xanthopus*

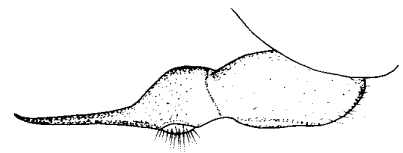


Fig. 35 *D. xanthopus* ovipositor lateral

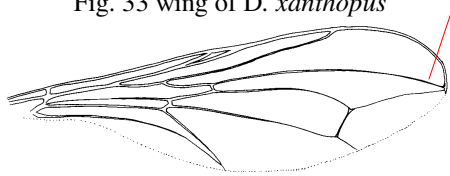


Fig. 34 wing of *D. anderssoni*

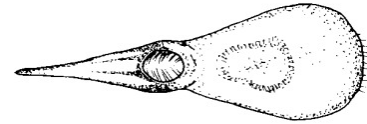


Fig. 36 *D. xanthopus* ovipositor from below

8. Abdomen black; femora with black bands subbasally; distal part of m1+2 distinctly sinuate and parallel with r4+5 just before wing tip (similar to Fig. 33); ovipositor longer 1.3-1.44mm as in Fig. 37 & Fig. 38 *fennica*
 - Abdomen with yellow side patches; femora entirely yellow; wings decidedly long and narrow distal part of m1+2 very shallowly sinuate and converging with r4+5 right to wing tip (Fig. 34); ovipositor 1-1.06mm as in Fig. 39 & Fig. 40 *anderssoni*
 [*D. occidentis* will probably run here but no British female seen. See Albrecht 1990]

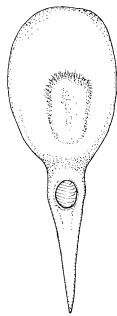


Fig. 37 *D. fennica* ovipositor from below

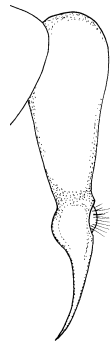


Fig. 38 *D. fennica* ovipositor lateral

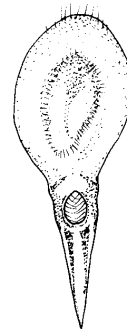


Fig. 39 *D. anderssoni* ovipositor from below

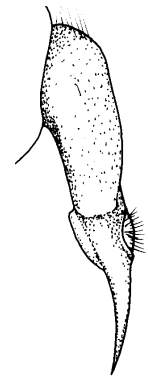


Fig. 40 *D. anderssoni* ovipositor lateral

9. Hind tibia with distinct bristle anteriorly at middle (Fig. 41) 10
 - Hind tibia without a distinct bristle in this position (sg. *Dorylomorpha*) 11

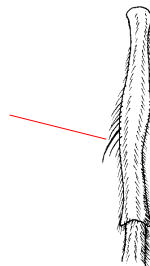


Fig. 41 *D. maculata* hind tibia

10. Postpronotal lobe yellow; legs almost entirely yellow; piercer with distinct lateral flanges (Fig. 42) (sg. *Pipunculina*) *maculata*
 - Postpronotal lobe black; legs entirely black except knees; piercer without lateral flanges, rather short (Fig. 43) (sg. *Dorylomyia*) *beckeri*

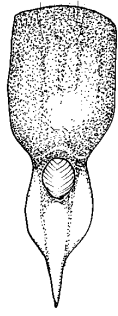


Fig. 42 *D. maculata* ovipositor from below

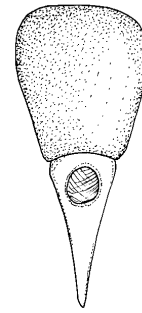


Fig. 43 *D. beckeri* ovipositor from below

- 11. Ovipositor angled, either at junction of basal part and piercer (Fig. 44) or half way along piercer (Fig. 45); piercer clearly longer than basal part 12
- Ovipositor straight, piercer in line with basal part; piercer barely longer than basal part (Fig. 46) 13
- 12. Piercer very long and slender, decidedly longer than basal part and conspicuously angled with basal part (Fig. 44), in ventral view tapering evenly *rufipes*
- Piercer shorter, base in line with basal part of ovipositor, piercer curved up about half way along (Fig. 45), in ventral view basal part more parallel sided, constricted distally, piercer narrowed about half way along (Fig. 23) *confusa*

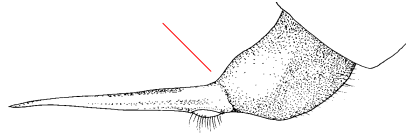


Fig. 44 *D. rufipes* ovipositor lateral

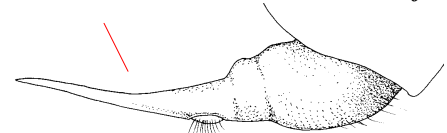


Fig. 45 *D. confusa* ovipositor lateral

- 13. Trochanters dark; ovipositor viewed from below with basal part constricted distally, piercer decidedly narrowed about half way along (Fig. 46) *extricata*
- Trochanters yellow or reddish brown; ovipositor viewed from below evenly tapered (Fig. 48) *imparata*

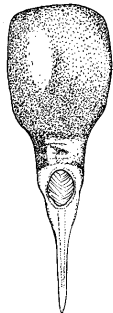


Fig. 46 *D. extricata* ovipositor from below

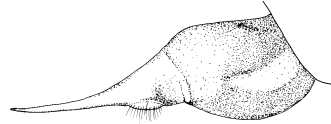


Fig. 47 *D. extricata* ovipositor lateral

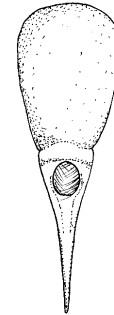


Fig. 48 *D. imparata* ovipositor from below