

BEE-FLIES (DIPTERA: BOMBYLIIDAE) OF NORTHWEST EUROPE

The morphology of flies is explained at the CSIRO site. Select the lower Brachycera as the fly group.

KEY TO THE GENERA

- 1.a Proboscis longer than the head in side view; hind border of eyes in side view straight -> 2
- 1.b Proboscis shorter than the head in side view; hind border of eyes in side view with a notch



Proboscis longer than head and hind border of eyes straight, above/left and proboscis shorter than head and hind border of eyes with a notch, below/right.

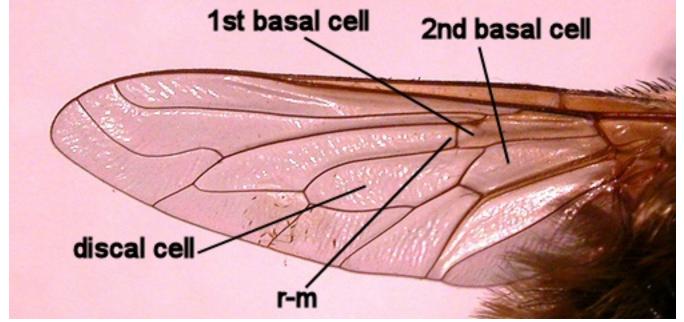
- 2.a Body length smaller than 5mm., relatively sparse haired; tibia 3 without bristles -> Phthiria
- 2.b Body length longer than 5mm., relatively dense haired; tibia 3 with bristles -> 3
- 3.a First antennal segment inflated, longer and wider than the 3rd segment -> <u>Conophorus</u>
- 3.b First antennal segment cylindrical, shorter and smaller than the 3rd segment -> 4

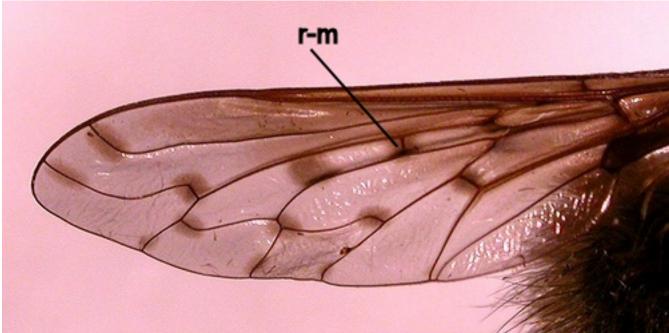




First antennal segment inflated, above/left; first antennal segment cylindrical below/right.

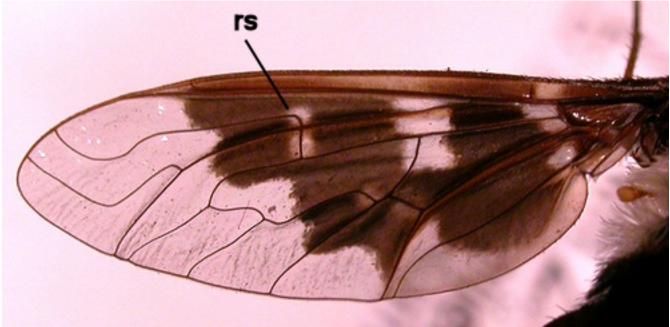
- 4.a Cross vein rm ends near the basis of the discal cell, at about 1/6th to 1/5th of the length of the discal cell, therefore the 1st basal cell (cell br) and 2nd basal cell (cell bm) equal in length -> <u>Systoechus</u>
- 4.b. Cross vein rm ends near the first third of the discal cell, therefore the 1st basal cell (br) much longer than the 2nd basal cell (bm) -> <u>Bombylius</u>

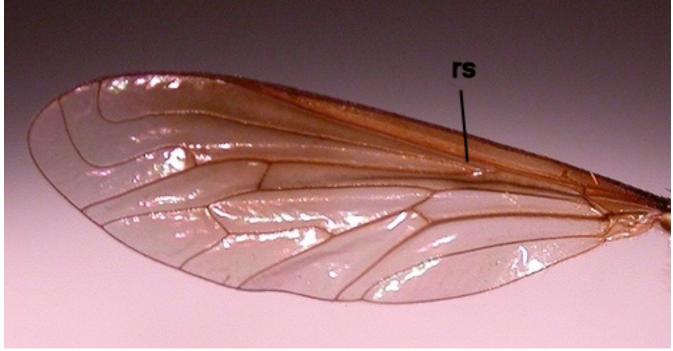




Cross vein rm near bsis of discal cell, above/left; cross vein rm near middle of discal cell, below, right.

- 5.a Body length smaller than 3mm.; Wing with discal cell fused with the 2nd basal cell (cell bm), forming one large cell -> <u>Glabellula</u>
- 5.b Body length longer than 5 mm.; Wing: discal cell separate from the 2nd cell basal -> 6
- 6.a Vein rs begins with a perpendicular angle on the vein beneath it, followed by a sharp bend -> 7
- 6.b Vein rs begins with a sharp angle on the vein beneath, lacing a sharp bend in the beginning -> *Lomatia*

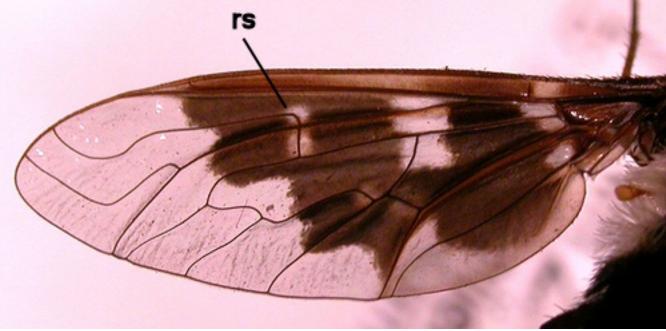




Vein rs starts perpendicular, above, left; ven rs starts with sharp angle, below, right.

- 7.a Wing hyaline, at most the front border diffusely brownish -> Villa
- 7.b Wing with dark patches, acutely bordered from the hyaline parts, the dark patches may cover most of the wing -> 8
- 8.a Cross vein rr present, adding an extra closed cell to the wing tip -> <u>Exoprosopa</u>
- 8.b Cross vein rr absent, no extra closed cell present in the wing tip -> 9





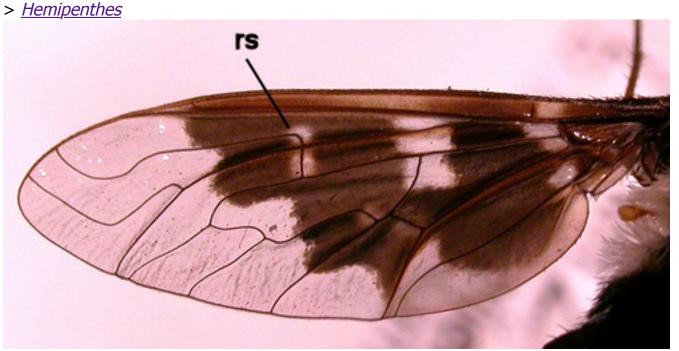
Cross vein rr present, above/left; cross vain rr absent, below/right.

- 9.a Wing: discal cell completely darkened, without hyaline parts; Antenna: last segment on the tip haired -> <u>Anthrax (part)</u>
- 9.b Wing: discal cell partly or completely hyaline; Antenna: last segment on the tip haired or not -> 10



Anthrax, head and antennae: see hairs on tip of antennae.

- 10.a Discal cell hyaline or darkened only at the basis and tip along the veins -> 11
- 10.b Discal cell darkened for bout half its surface or more -> 12
- 11.a Antenna: last segment on the tip haired; wing darkened parts extend from front border into the wing -> <u>Anthrax (part)</u>
- 11.b Antenna: last segment bare on tip; wing: only front border darkened, with straight border with the remaining part of the wing -> <u>Exhyalanthrax</u>
- 12.a Wing: dark part of wing with hyaline spots -> <u>Thyridanthrax</u>
- 12.b Wing: dark part of with without hyaline spots, sometimes coloured whitish at cross veins -





Wing: dark part with hyaline patches, above, left; dark parts without hyaline patches, below/right.

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Last updated 22.1.2008