

KEY TO GENERA OF BRITISH ANTHOMYIIDAE

Males

- 1 Narrowest distance between eye margins on frontalia (generally measured at about halfway between lunule and anterior ocellus) at least 0.75 times width of an eye (range 0.75–2.3, average 1.5) (Couplet 1 group) 2
- Narrowest distance between eye margins on frontalia at most 0.4 times width of an eye (generally much less, the majority of species here have the eyes closely approximated)..... 9
- 2 Hind tibia without a *pv* apical seta 3
- Hind tibia with a strong *pv* apical seta which is almost or quite as long and strong as the *av* apical..... 8
- 3 Arista long plumose, about twice as wide (including hairing) as postpedicel, the hairs in more than one row above and below. Abdomen entirely reddish yellow in ground colour. **Mycophaga testacea** Gimm.
- Arista at most only about half as wide as postpedicel. Abdomen entirely black in ground colour. 4
4. Gena below eye almost or quite half as deep as vertical diameter of eye. 5
- Gena below eyes much less than half as deep as vertical diameter of eye, either very narrow and hardly as wide as postpedicel, or if wider then the latter very large and arista geniculate 7
- 5 Katepisternal setae 2 + 2. Acrostichals strong in two complete rows. Hind femur with a well developed setose tubercle beneath at base. Costa of wing with some semi-erect and widely spaced spinules which contrast with the finer and more numerous anterior spinules which are semi-decumbent **Fucellia**
- Katepisternal setae 1 + 2. Acrostichals all fine and hair-like. Hind femur without a tubercle beneath..... 6
- 6 Mid tibia without ventral setae but with multi-serial fine erect hairs on *av*, *v* and *pv* surfaces. Scape, pedicel and palpus orange-brown. Peristomal margin in profile well behind level of parafrontal angle. Abdomen short and strongly clubbed. Costal spine shorter than small crossvein. Costa bare on lower surface
..... **Myopina myopina** R.D.
- Mid tibia with three strong *av* setae, no erect hairs. Scape, pedicel and palpus dark brown to black. Peristomal margin in profile level with parafrontal angle. Abdomen less strongly club-shaped. Costal spine longer than small crossvein.. Costa setulose on whole length of lower surface, the setulae lying below the row of *av* spinules. Parafrontals brown dusted..... **Botanophila moriens** Zett.
- 7 Antennae short, postpedicel hardly 1.5 times as long as pedicel (measured on inside face). Pedicel short, not longer than its width, arista never geniculate. Tip of scutellum usually bare beneath. Mentum short, not much more than three times as long as wide, dusted. Gena very narrow [measure] **Chiastocheta**
- Antennae conspicuously large, postpedicel quite 4 times as long as pedicel. Arista more or less geniculate. Scutellum with distinct fine pale hairs beneath at tip. Mentum long and slender, about 4 times as long as wide, shining black..... **Alliopsis albipennis** Ringdahl.
- 8 Anal vein not reaching wing margin. Anal lobe of wing little developed so that wing distinctly narrows from about middle to base. Tip of scutellum with a few fine hairs beneath. Katepisternal setae 1 + 1, anterior seta fine and hair-like. Light grey dusted species with a distinct brown median vitta on scutum which extends to tip of scutellum. **Anthomyia monilis** Mg.
- Anal vein always reaching wing margin, even though only as a hair-fine line of shadow. Anal lobe normal, wing not narrowing from middle to base. Scutellum usually bare beneath, at most with only 2-3 inconspicuous pale hairs at tip. **Chirosia** A
- 9 Hind tibia with a well developed *pv* apical seta, which is almost (or quite) as long and strong as the *av* apical. (*Hylemya partita* sometimes has a weaker *pv* seta on hind tibia (about one-third to a half length of the *av*) and is keyed out in both sections) 10
- Hind tibia without a well developed *pv* apical seta, rarely with a short weak one..... 17
- 10 Scutellum usually entirely bare beneath, at most with only 2–3 scattered fine hairs at tip. (If in doubt and fine pale hairs are present under tip of scutellum, a shining black species with intensively yellow wings, arista plumose with multiserial shaggy rays, anepisternum without a strong isolated setula on upper anterior margin, see *Chirosia flavipennis* below; or fore tibia with a long submedian *p* seta and mid tibia with 4 *p* setae, see *Chirosia griseifrons* below). 11

- Scutellum with some short fine pubescence beneath at tip. Anepisternum with an isolated strong upcurved seta towards anterior part of upper margin..... 14
- 11 Mid tibia with one or more strong *av* setae on apical half. Face somewhat retreating so that parafacial angle is much more prominent than peristomal margin. **Phorbia** A
- Mid tibia without *av* setae. 12
- 12 Anepisternum with an isolated strong upcurved seta towards anterior part of upper margin. Interfrontalia without trace of interfrontal setae. Mid tibia, in addition to the normal *ad* and *pd*, with 4 posterior setae **Chirosia griseifrons** Ség
- Anepisternum without an isolated strong seta towards anterior part of upper margin. Interfrontalia with a distinct pair of (often small and usually crossed) setae on upper part. (These setae, unlike the stronger orbital setae, do not arise from the parafrontals, their bases lying within the frontal vitta between, though often close to, the parafrontals)..... 13
- 13 Arista, including hairing, about twice as wide as postpedicel, the hairs more than uniserial both above and below. Mid femur with 3 long, strong, erect *v* setae in basal half. **Chirosia flavipennis** Fall.
- Arista, including hairing, at most less than half as wide as postpedicel, the hairs in a single row above and below **Chirosia** B
- 14 Arista, including hairing, at least twice as wide as postpedicel, with about 7–9 dorsal rays and 3–5 ventral ones. Prealar seta nearly as long as posterior notopleural seta. Katepisternal setae 2 + 2. Hind femur with numerous long *av* and *pv* setae and setulae. Processes of 5th steering short and widely separated at base **Hylemya partita** Meigen
- Arista, including hairing, not more than half as wide as postpedicel. Prealar seta longer than posterior notopleural seta..... 15
- 15 Acrostichal setae all, or almost all, fine and hair-like, at most 1–2 stronger ones in front of suture. tergite VI mainly visible and bearing strong marginal setae. Katepisternal setae 1 + 2. **Botanophila** A
- Acrostichals well developed. tergite VI mainly or entirely hidden, without marginal setae. 16
- 16 Mentum somewhat slender and entirely shining black. Arista with the longest hairs distinctly shorter than its basal diameter **Lasiomma latipenne** Zett.
- Mentum not particularly slender, entirely dulled by dust. Longest arista hairs as long as or longer than basal diameter of arista. **Anthomyia** A
- 17 Parafacial angle projecting well in front of level of peristomal margin in lateral view, face more or less flat. Parafacial wide at level of lunule, becoming narrower below, with a rather pronounced parafacial fold or ridge. Distance from anterior ocellus to lunule greater than from lunule to peristomal margin. Thorax short and wide, length from foremargin to base of scutellum more or less equal to width between wing bases. Lower squama very narrow and strip-like. Abdomen viewed from above long ovate, not parallel sided; in lateral view more or less cylindrical, postabdomen swollen and prominent. Legs rather short and robust. Mid tibia with an *av* seta (except some specimens of *atrogrisea*). Grey to light grey dusted flies 18
- Not all the above characters present at the same time 18
- 18 Tergite VI mainly visible and bearing strong setae, and at the same time at least femora dark..... 19
- Tergite VI without setae, and more or less hidden under tergite V (care should be taken to distinguish the tergite VI from the prehypopygial tergite which is always setose) or if tergite VI bears some setae or setulae, then femora yellow, *or* arista almost bare, hairs not longer than thickness of arista base..... 20
- 19 Hind tibia with 2 *ad* and 2 *pd* setae. Either upper part of face with a swelling between antennal base, peristomal margin projecting forwards and mid tibia with 1 *av*, or arista long plumose, the length of longest hairs equal to width of postpedicel. Mentum short, about 2.5–3 times as long as wide. Acrostichal setae developed. sternite V cordate with dense series of short setulae on inner surfaces of processes..... **Pegoplata** A
- Hind tibia with 3–4 *ad* and 3–4 *pd* setae. Upper part of face not swollen between antennae, Mid tibia without *av*. Mentum long and slender, about 4–5 times as long as wide. Peristomal margin somewhat protruding, projecting as far as or further than parafacial angle Acrostichal setae fine and hair-like, at most 1–2 stronger ones before suture **Botanophila striolata** Fallén
- 20 Sternite V processes with raised inner margins (in most species strongly sclerotized and shining black, at least

- on lower (inner) margin). These inner margins project ventrally in lateral view. Mentum generally rather long and slender, shining black, entirely undusted. Gena as wide as or wider than postpedicel. Cruciate interfrontal setulae present. Abdomen cylindrical or slightly compressed. Anepimeron without a developed upper setula on upper anterior margin. Prealar rather long, from slightly shorter than posterior notopleural seta, to considerably longer. Arista bare to short plumose **Alliopsis**
- Without the above combination of characters 21
- 21 Parafacial and gena conspicuously wide, the former almost 3 times as wide as postpedicel, the gena 0.3–0.5 times as deep as vertical diameter of eye. Eyes always well separated. Mentum entirely dulled by dust. The longer costal spines before distal break inconspicuous or absent, not more than twice costal width. Abdomen almost cylindrical, little (if at all) dorsoventrally flattened. Arista long haired or bare. Mid tibia always with an *ad* seta. **Leucophora**
- Without all the above combination of characters (if parafacial is wide, then 4 post dorsocentral setae present, Mid tibia without an *ad* seta, and eyes closely approximated)..... 22
- 22 Scutellum dusted pale grey with a black spot or side margin on each side, to black with a pale grey median spot at apex, the division between black and grey always sharply defined..... 23
- Scutellum not marked as above, usually concolorous with thorax, any paler dusting present not forming a sharply defined pattern 24
- 23 Proepisternal depression with 6–20 fine hairs on disc. Scutum dusted pale grey with 5 large sharply defined elongate spots. Abdomen distinctly dorsoventrally flattened towards base. Setae on lateral surface of scutellum in a single regular row. Prehypopygial tergite shining black and contrasting with the grey dusted tergite V. Abdomen with a tridentate black basal crossband on at least tergites III–V..... **Anthomyia B**
- Proepisternal depression bare. Scutum with 3–5 longitudinal black stripes. Abdomen more or less cylindrical, not flattened even at base. Setae on lateral surface of scutellum in more than one irregular row. **Eustalomyia**
- 24 Abdominal tergites III–V each with a sharply defined black transverse tridentate band on foremargin. Hind tibia, posterodorsally, with only a single strong seta at distal half to third (occasionally a very small second *pd* seta may be present at basal third) which is almost as long as hind metatarsus. Legs entirely black..... **Calythea**
- Abdominal tergites never with a tridentate foremarginal band. Hind tibia with 2 or more *pd* setae, or if with only one then legs mainly yellow..... 25
- 25 Lower squama well developed and projecting well beyond upper squama, its length (greatest distance from thoracic margin to tip of lobe) equal to or exceeding that of upper squama. tergite VI bare and mainly hidden, at most with a few fine hairs on posterior margin. Cruciate interfrontal setulae present. Mentum entirely shining black, undusted. Eyes bare. Arista, including hairing, quite half as wide (or more) as postpedicel, or if only pubescent then a pair of well developed crossed setae on upper part of interfrontalia. Costa setulose along whole length of ventral surface, except in *Zaphne divisa*, (where the setulae reach halfway between the costal breaks). which has aristal plumosity twice as wide as postpedicel, notopleural depression setulose, occiput and anterior part of scutum bearing stiffened setulae. Robust flies with more or less cylindrical abdomina..... 26
- Without all the above combination of characters 27
- 26 Arista very long plumose, total width of hairing at least twice width of postpedicel, with 12–16 dorsal rays and 8–12 ventral rays. Notopleuron absolutely bare apart from the two strong setae. Legs partly or wholly yellow in most species..... **Hydrophoria**
- Arista shorter plumose or only pubescent, total width of hairing not exceeding width of postpedicel, or if with longer hairs then notopleural depression with some hairs about base of posterior seta. Legs and abdomen black. Occiput and anterior part of scutum with some stiffened setulae. Sternites and tergites often with long specialised setae and setulae **Zaphne**
- 27 Cruciate interfrontal setulae absent (though the uppermost pair of small frontal setae may appear to arise from the interfrontalia, but careful examination shows that their bases are on the parafrontalia). Prealar seta longer than posterior notopleural seta (1.3–1.5 times) and directed laterally at right angles to thorax. Eye margins touching on frons (or at least parafrontalia touching and interfrontalia linear). tergite VI bare. sternite V not cordate, with longer processes bearing only fine setulae and hairs on inner surfaces. Flies generally with rather long legs (yellow to completely dark)..... **Eutrichota**
- Without the above combination of characters 28
- 28 Arista long plumose, total width of hairing at least twice width of postpedicel, the rays spaced out with 6–12 on

- dorsal surface, and 4–9 on ventral surface. Abdomen more or less cylindrical, not flattened basally (except *Hylemya partita* which has a small apical *pv* seta on hind tibia **Hylemya**
- Arista with total width of hairing not wider than postpedicel, generally no more than pubescent..... 29
- 29 Hind tibia with only 2 *ad* and 2 *pd* setae (more or less paired). Dark brownish to black species with thin dusting. sternite V cordate, with dense series of short setulae along inner surfaces of processes. Legs dark **Pegoplata B**
- Hind tibia with more numerous *ad* setae, (or if with only 2 *ad* and 2 *pd* setae on hind tibia and a pale greyish, densely dusted species with projecting peristomal margin and processes of sternite V with 2–3 apical spines placed close together and with pale legs and sternite V not cordate, go to couplet 30. (*Adia cinerella*) 30
- 30 Thorax with a long presutural intra-alar seta which is two-thirds as long (but not as strong) as posterior notopleural seta. Three almost equally long postsutural intra-alars. Abdomen wide and conspicuously shorter than thorax hence 3rd tergite 4–5 times wider than long. All acrostichal setae long and strong, presutural acrostichals widely separated and with multiserial hairs between rows. Eye margins touching on frons. Whole fly orange and semi-shining. **Pegomya testacea** De Geer
- Presutural intra-alar, when present, very short. Usually only 2 postsutural intra-alars. Abdomen normal, longer than thorax. 31
- 31 Anepimeron with an isolated strong setula towards posterior part of upper margin. Anal vein usually so faint in apical part that it may appear not to reach wing margin. Arista with the longest hairs quite as long as its basal diameter. **Emmesomyia**
- Anepimeron bare. Anal vein always quite distinct (even though faint) right to wing margin. 32
- 32 Interfrontalia without trace of cruciate setae or setulae. Peristomal margin not strongly projecting forwards. Costa hairy along whole length beneath, the hairs lying below the anteroventral row of setulae. Hind tibia without *pv* setae or setulae. Mid tibia with 0–1 *ad* seta. The usually stronger pair of costal spines before the distal break either indistinguishable from the setulae between the breaks, or if longer then not exceeding twice the length of those setulae. Eyes bare. Arista at most microscopically pubescent. Notopleuron entirely bare apart from the two strong setae (except *argyrocephala*). (The majority of species have fully or partially yellow or orange legs, only four species have entirely black legs). **Pegomya**
- Interfrontalia always with a pair of (usually crossed) setae on upper part, though these may be small and somewhat hair-like. Costa usually bare ventrally beyond distal break, but if setulose along whole length then not all other characters as above. 33
- 33 Hind tibia with 3 strong preapical setae of equal length on dorsal surface (the *pd* preapical well developed). Arista very strongly pubescent. Mentum shining, undusted. Prealar seta much longer than posterior notopleural seta. Costa setulose on ventral surface on whole length beneath. **Botanophila B**
- Hind tibia with only 2 well developed dorsal preapicals, the posterodorsal one is weak (not more than half length of dorsal seta) or absent (or if there are 3 dorsal preapical setae of the same length, they are all short and weak). 34
- 34 Mid tibia with one or more *av* setae in distal two-thirds..... 35
- Mid tibia without *av* setae 39
- 35 Peristomal margin in lateral view upturned and conspicuously projecting forwards beyond level of parafrontal angle, and beyond level of parastomal angle. Hind tibia with only one *av* seta. 36
- Peristomal margin not or hardly projecting, distinctly less prominent than parafrontal angle. Hind tibia with 2 or more *av* setae. 37
- 36 Acrostichals mainly hair-like and multiserial, only one pair of strong presutural setae which are set far apart. **Paregle**
- Two rows of setose acrostichals which are equidistant from dorsocentral rows and each other, without hairs between them **Adia**
- 37 Abdomen oval-cylindrical, not dorsoventrally flattened, even somewhat laterally compressed. Hind femur without *pv* setae. Wing with crossveins usually somewhat clouded. The *av* seta on mid tibia is quite small and placed at middle of tibia **Subhylemyia longula** Fall.
- Abdomen decidedly flattened on about basal two-thirds. The *av* on mid tibia strong and placed in distal half of

- tibia. Hind femur with long *pv* setae. Neither crossvein clouded..... 38
- 38 Fore tibia with a strong blunt curved *pv* apical spur. Mid tibia usually with 2 *av* setae. Hind tibia with a posterior row of 8–10 long rather fine setae, becoming shorter distally. Processes of sternite V rather weakly setose except for a close set row of about 6 coarse blunt setae at apex of lower margin, these setae directed vertically downwards. Presutural acrostichals partly uniserial anteriorly **Delia lamelliseta** Stein
- Fore tibia with only the normal pointed *pv* apical seta. Mid tibia with only one *av* seta. Processes of sternite V rather strongly setose, the setae being sharp pointed and mainly directed posteriorly.....**Botanophila** C
- 39 Notopleural depression with some hairs about bases of the 2 strong setae, and at the same time only 3 post dorsocentral setae. Lower posterior katepisternal seta much weaker than, and at most little more than half as long as, upper one. Mid tibia without a distinct *ad* seta. Costa hairy along whole length of ventral surface. Eyes separated by almost the width of postpedicel **Delia** A
 [*Botanophila latifrons* sometimes has 1–3 setulae on notopleural depression; a small species with parafrontal angle strongly projecting, peristomal margin receding, wings brownish basally with dark veins, wing length about 4 mm; go to couplet 40]
- Without the above combination of characters, if notopleural depression with some hairs, then 4 post dorsocentral setae present 40
- 40 Hind tibia with only 2 *pd* setae. 41
- Hind tibia with 3 or more *pd* setae 42
- 41 Hind tibia with 3 or more *ad* setae. Mid tibia with a distinct *ad* seta. Mentum, and pregenital sclerite of abdomen, shining black. sternite V with remarkable appendages to processes **Paradelia** A
- Hind tibia with only 2 *ad* setae. Mid tibia without an *ad* seta. At least the pregenital sclerite dulled by dust. Legs mainly reddish or brownish yellow. Small, delicate fly with small head and thorax in lateral view humped. sternite V without remarkable appendages.**Paradelia lunatifrons** Zett.
- 42 Peristomal margin in profile sharply protruding so that it is more prominent than parafrontal angle. Proboscis conspicuously long and slender, more slender than, and about 0.75 times the length of fore tibia..... 43
 [If in doubt and prealar seta absent, and a light olive-grey dusted species, go to couplet 44]
- Peristomal margin hardly or not protruding, or if rather prominent then proboscis distinctly stouter than, and less than 0.75 times the length of fore tibia. 44
- 43 Mid tibia with a distinct *ad* seta. Prealar seta longer than posterior notopleural. Notopleural depression bare apart from the 2 strong setae. Wing base blackish, contrasting with whitish squamae. **Heterostylodes**
- Mid tibia without an *ad* seta. Prealar shorter than or as long as posterior notopleural seta, or if longer then 4 postsutural dorsocentrals and notopleural depression with some hairs about base of posterior seta.**Egle**
- 44 Mid tibia without an *ad* seta. Hind femur without distinct *pv* setae except 2-5 in distal fifth **Delia** B
- Mid tibia with one or more *ad* setae, sometimes quite small but distinct from tibial hairs (*Botanophila sanctimarci* has a very small *ad*, sometimes absent, in which case hind femur with complete rows of *av* and *pv* setae, and processes of sternite V partly orange). 45
- 45 Eyes with distinct pubescence (from one-quarter to equal the width of postpedicel). Anepisternum with a differentiated upcurved setula towards anterior part of upper margin. (Not including *Lasiomma picipes* Mg.)
 **Lasiomma**
- Eyes virtually bare..... 46
- 46 Mainly shining blackish flies with only sparse dusting, yellowish wing base and short shining blackish mentum. Scutum, viewed from behind, with two presutural light grey dusted vittae between acrostichal and dorsocentral rows **Strobilomyia**
- Without the above combination of characters 47
- 46 Mid tibia with 2 *pd* setae. Fore tibia never with a strong blunt *p* or *pv* curved apical spur which is curved forwards towards tarsus, though a pointed *pv* apical seta which is directed posteroventrally may be present
 **Botanophila** D
- Mid tibia with only 1 *pd* seta, or if with 2 then fore tibia with a strong blunt *p* or *pv* apical spur..... **Delia** C

[*Lasiomma picipes* will key to this couplet. It is the only British species of *Lasiomma* with bare eyes, and mid tibia with 1 *ad*, 1 *pd* and 2 *pv* setae (not in a true posterior position, see couplet 45). About 4-5 mm long, mainly blackish species, genal setae in more than one row, 3 posthumeral setae, costal spines at distal break hardly discernible from the spinules between the costal breaks, scutum with 2 presutural grey dusted vittae between acrostichal and dorsocentral rows. Hind tibia with 8–11 *ad* setae. All tibial setae rather short. Hind femur with *av* and *pv* setae].

Genera of male British Anthomyiidae

Couplet groups

Couplet 1 (Species with eyes widely separated)

Mycophaga testacea, *Fucellia* spp, *Myopina myopina*, *Botanophila moriens*, *Chiastocheta* spp., *Alliopsis albipennis*, *Anthomyia monilis*

Chirosia group A

Chirosia albitarsis, *crassiseta*, *grossicauda*, *nigripes*.

Chirosia group B

Chirosia aberrans, *cinerosa*, *histicina*, *montana*, *betuleti*, *similata*

Phorbia group A

Phorbia nuceicornis, *moliniaris*

Phorbia group B

Phorbia bartaki, *fumigata*, *atrogrisea*, *nuditibia*, *juncorum*, *sepia*, *longipilis*

Botanophila group A

Botanophila varicolor, *trapezina*, *odontogaster*

Botanophila group B

Botanophila apiciseta, *maculipes*, *jacobaeae*

Botanophila group C

Botanophila spinosa, *sericea*

Botanophila group D

Botanophila biciliaris, *brunneilinea*, *cuspidata*, *depressa*, *dissecta*, *fonsecai*, *fugax*, *gnava*, *helviana*, *hucketti*, *laterella*, *latifrons*, *lobata*, *phrenione*, *profuga*, *rupicapra*, *sanctimarci*, *seneciella*, *sericea*, *silvatica*, *sonchi*, *striolata*, *verticella*

Anthomyia group A

Anthomyia liturata, *confusanea*, *cannabina*, *mimetica*

Anthomyia group B

Anthomyia pluvialis, *procellaris*, *imbrida*, *bazini*

Pegoplata group A

Pegoplata juvenilis, *palposa* (*nigroscutellata patellans aestiva debilis*)

Pegoplata group B

Pegoplata aestiva, *infirma*, *nigroscutellata*, *patellans*, *debilis*

Delia group A

Delia radicum, *planipalpis*, *floralis*, *carduiformis*

Delia group B

Delia carduiformis, *coarctata*, *fabricii*, *lavata*, *nigrescens*, *pallipennis*, *pruinosa*

Delia group C

Delia albula, *antiqua*, *cardui*, *coronariae*, *criniventris*, *diluta*, *echinata*, *flavogrisea*, *florilega*, *frontella*, *hirtitibia*, *interflua*, *kullensis*, *nuda*, *penicillaris*, *pilifemur*, *piliventris*, *platura*, *quadripila*, *setigera*, *tarsifimbria*, *tumidula*

Paradelia group A

Paradelia intersecta, *brunneonigra*, *palliceps*

ALLIOPSIS

Males

- 1 Frontalia wide, with one proclinate and 2 reclinate orbital setae. Antennae long and strong, reaching below eye. Arista elbowed, pedicel lengthened, postpedicel thickened to beyond middle, pedicel usually nearly 0.25 times as long as postpedicel. Hind femur with weak *pv* setae. Processes of sternite V shorter than tarsomere I of hind leg. Wings distinctly whitish..... **albipennis** Ringdahl
- Frontalia of different width. At most a rudimentary proclinate orbital seta present. Reclinate orbitals completely absent. Antennae significantly shorter. Arista not elbowed, pedicel not lengthened 2
- 2 Hind tibia above middle with a long and strong *pv* seta. Prosternum bare 3
- Hind tibia without distinct *pv* setae 4
- 3 Processes of sternite V on ventral margin before apex with a distinct incision. Wing base not or only weakly yellowish, squamae whitish **billbergi** Zetterstedt
- Processes of sternite V without an incision, and with a virtually straight lower margin. Hind femur with very long and strong *pv*, nearly as long as *av*. 3–4 frontal setae on each side. Crossed setae on frons at about middle of distance between frontal setae and ocellar tubercle. Fore tibia with 1–2 long and strong *pd*, at about middle of tibia.....**silvestris** Fallén
- 4 Hind tibia at apex with some long setulose hairs..... 5
- Hind tibia at apex without long setulose hairs 6
- 5 Hind metatarsus inside with a row of lengthened setulose hairs. Body length at most 5 mm. ...**sepiella** Zetterstedt
- Hind metatarsus posteroventrally without lengthened setulae. Body length 5.5–6.5 mm. Width of gena equal to length of postpedicel. Setulose hairs at end of hind tibia developed as stronger setae**sitiens** Collin
- 6 Hind tarsomere II, III, IV very small, at apex on each side with a long bristly hair **pilitarsis** Stein
- Hind tarsi not as above 7
- 7 Black shining little dusted species. Postabdomen especially shining black. Parastomal margin distinctly projecting. Mentum long and slender. Hypopygium especially large. Processes 5th of sternite large, oval, swollen on upper side **atronitens** Strobl
- More dusted species, postabdomen especially grey dusted. Parastomal margin not or only indistinctly projecting. Processes of sternite V on ventral margin incised, in middle with a wide swollen projection **conifrons** Zett.

ALLIOPSIS

Females

- 1 Antennae long and strong, reaching almost to parastomal margin. arista elbowed, pedicel lengthened, generally 1/6 as long as postpedicel, postpedicel thickened up to middle..... **albipennis** Ringdahl
- Postpedicel not reaching as far as parastomal margin 2
- 2 Hind tibia above middle with a long strong *pv* seta..... 3
- Hind tibia without a strong *pv* seta 4
- 3 Orbital setae present (1 proclinate and 1–2 reclinate). Interfrontalia nearly as wide as postpedicel. Shining blackish, weakly grey dusted species. Squama whitish, wings at base not or only weakly yellowish **billbergi** Zetterstedt
- Orbital setae absent, or only 1 proclinate orbital present**silvestris** Fallén
- 4 Mid tibia with 1–2 *av* setae. 5
- Mid tibia without *av* setae 7
- 5 Prosternum on each side with some setulose hairs**sitiens** Collin
- Prosternum bare..... 6
- 6 Ocellar triangle and parafacials adjacent to antennal base shining black. Wings at base blackish. Abdomen

	without pale dusting. sternite V and tergite V unusually large.....	atronitens Strobl
–	Ocellar triangle not shining. Wing base yellow. Abdomen with weak grey dusting.....	conifrons Zetterstedt
7	Prosternum setulose on side margins.....	8
–	Prosternum bare.....	9
8	Parafacials not wider than postpedicel. Uppermost orbital seta exclinate and slightly reclinate, the two anterior ones proclinate.....	pilitarsis Stein
–	Parafacials much wider than postpedicel. All 3–4 orbitals all more or less exclinate.....	sitiens Coll.
9	Prealar seta about as long as posterior notopleural seta.....	sepiella Zetterstedt
–	Prealar seta distinctly longer than anterior notopleural seta (1.5 times +).....	conifrons Zetterstedt

ANTHOMYIA

Males

1	Proepisternum bare. Scutum without black and white pattern, at most with brownish vittae. Hind tibia with an apical <i>pv</i> seta. Apical setae of cercal plate not spiniform.....	2
–	Proepisternum setose or pilose. Scutum patterned with black spots, contrasting with silvery grey areas. Hind tibia without an apical <i>pv</i> seta. Apical setae of cercal plate spiniform.....	6
2	Eye margins on frons separated by about width of an eye. Strong orbital setae present. Anal vein not reaching wing margin, anal lobe of wing little developed so that wing distinctly narrows from about middle to base. Katepisternal setae 1 + 1. Light grey dusted species with a brown median vitta on scutum which extends to tip of scutellum. Wing darkened brownish especially on fore margin.....	monilis Mg.
–	Eye margins on frons much closer together, touching or separated by no more than distance between posterior ocelli.....	3
3	Crossveins infuscated. Length of arisal hairs nearly equal to width of postpedicel.....	4
–	Crossveins not infuscated.....	5
4	Mid tibia generally with 1 <i>ad</i> seta. Prealar seta shorter than posterior notopleural seta. Cercal plate in caudal view more tapering apically, with apical lateral setulae more restricted. . Cercal plate in lateral view flat for most of its length, only convex on lower quarter. sternite V with processes non-converging. Processes on sternite VI unpaired. Membranous area between surstylus and cercal plate very narrow. Distiphallus less arched. Pregonite and postgonite of different shape.....	confusanea Mich.
–	Mid tibia generally with 2 <i>ad</i> setae. Prealar seta as long as posterior notopleural seta. Cercal plate in caudal view more tapering apically, with apical lateral setulae continuing up sides for about one-third of its length. Cercal plate in profile strongly convex at middle. sternite V with processes converging. Process on tergite VI forming a pair of lobes. Membranous area between surstylus and cercal plate wider. Distiphallus strongly arched and narrow. Pregonite and postgonite different.....	litorata R. D.
5	Arista almost bare, hairs shorter than arisal width at base. Squama whitish. Wing hyaline, not yellow even at base. Stronger spines before distal break shorter than small crossvein. Lighter grey species.....	cannabina Stein
–	Arista pubescent, longer hairs slightly longer than arisal width at base. Squama yellowish or whitish yellow. Wing darkened at base. Stronger spines before distal break as long as small cross vein or longer. Darker grey species.....	mimetica Mall.
6	Scutum with lateral postsutural black spot separated from the small spot above wing base, with the upper border of the latter ventral to the supra-alar seta. Arista with very short pubescence, longest hairs hardly 0.5 times basal diameter of arista. Parafrontals generally separated on frons by a narrow black interfrontalia (width equal to diameter of anterior ocellus). sternite V in ventral view with the basal inner margin of processes dilated and bearing multiserial rows of setae; in profile with a small rounded ventral membranous lobe, and a space between the basal setae and the longer apical setae of the processes.....	pluvialis L.
–	Scutum with the large lateral postsutural black spot broadly confluent with the small black spot above wing base (if separated then the upper margin of the black spot above wing base is larger and reaches the point of insertion of the supra-alar seta. Arista with longer hairs (longest hairs equal to or longer than the basal arisal	

thickness) . Parafrontals generally contiguous on frons. sternite V in ventral view with the inner margins of processes more or less concave7

- 7 Posterior margin of the lateral postsutural black spot on scutum more or less straight just below level of the posterior intra-alar seta. Arista with longer hairs (longest slightly longer than the basal arista thickness. Hind tibia with about 5–9 *ad* setae. sternite V in ventral view with shorter setae on inner margin of processes basally, outer lateral setae also shorter; in profile the ventral setae are continuous, and the angle between the narrower ventral membranous lobe and base is obtuse **procellaris** Rond. and **bazini** Séguy

(In outward appearance *bazini* is more or less identical to *A. procellaris*, but the ♂ genitalia differ from *procellaris* as follows: sternite V with strongly developed membranous lobes, which project downwards and backwards (it should be possible to see this in dried specimens without dissection), postgonite with an expanded setulae, similar to *pluvialis*, and not like *procellaris*, cercal plate with 4 pairs of modified setulae at apex, basal dorsal process on distal section of aedeagus very near base and directed apically)

- **bazini** Séguy)
- Posterior margin of the lateral postsutural black spot on scutum distinctly indented just below the posterior intra-alar seta. Arista with longest hairs equal to basal thickness of arista. Hind tibia with more numerous *ad* setae (generally from 9–15, occasionally more). sternite V in ventral view with the setae on inner margin of processes basally with longer uni- to biserial setae; in profile with wider membranous ventral lobe (somewhat square ended) and base forming a right angle with the sternite V process, and longer lateral setae at base of processes..... **imbrida** Rond.

BOTANOPHILA

Males

- 1 Eye margins on frons separated by about width of an eye. 3 strong orbital and 3 strong frontal setae. Mid tibia with 3 strong *av*, 2–3 *ad* and 4 *pd* setae. Scape, pedicel and palpus dark brown to black. Peristomal margin in profile level with parafrontal angle. Acrostichal setae triserial and all fine, hair-like. The longer spines before distal break longer than small crossvein.. Costa setulose on whole length of lower surface, the setulae lying below the row of *av* spinules. tergite VI visible but bare. Dusting of thorax and abdomen dark olive-brown. Wing length 4.2–5.7 mm. **morieni** Zett.
- Eye margins on frons much closer together, separated by no more than width of ocellar tubercle 2
- 2 Tergite VI setulose 3
- Tergite VI bare 6
- 3 Hind tibia without a developed *pv* apical seta. Parafacials wide, 1.5 times width of postpedicel, gena about same width with bi-triserial genal setae. Proboscis long and slender. Prealar seta longer than posterior notopleural seta. Mid tibia with 1–2 *ad*, 2–3 *pd* setae. Wing length 4.5–5.5 mm..... **striolata** Fall.
- Hind tibia with a developed *pv* apical seta 4
- 4 Sternite V processes with minute spines. Eye margins on frons separated by 2.5 times width of anterior ocellus. Outer lobe of surstylus with a developed median tooth on inner margin, in lateral view longer and narrower. Cercal plate with a longer narrow apical half **varicolor** Mg.
- Sternite V processes with strong spines 5
- 5 Eye margins on frons separated by 1–1.25 times width of anterior ocellus. Surstylus in lateral view with outer apical lobe wider..... **odontogaster** Zett.
- Eye margins on frons separated by 2–2.25 times width of anterior ocellus. Surstylus in lateral view with outer apical lobe narrower **trapezina** Zett.
- 6 Arista, including hairing, more than half as wide as postpedicel. Hind tibia with almost complete rows of 12 or more strong setae on both *av* and *pv* surfaces. Mid femur with a complete row of *pv* setae, 8–10 on basal two-thirds being long and strong..... **brunneilinea** Zett.
- Arista with the longest hairs at most twice as long as basal arista thickness. Hind tibia with only a few *av* setae and without true *pv* setae. Mid femur with long setae (at most 6 in number) on basal half only. 7
- 7 Hind tibia with 3 equally strong preapical setae on dorsal surface (*ad*, *d*, *pd*). Mentum shining, undusted. Prealar longer than posterior notopleural. Ventral surface of costa at least up to distal break setulose (in

- apiciseta* sometimes sparse)..... 8
- Dorsal preapical setae of hind tibia of very different lengths, either the *pd* is absent, or much shorter than the *d* seta, or all setae very short. middle one longest, hind one shortest and weakest. Costa bare on ventral surface 10
- 8 Arista very short pubescent, the length of hairs is less than the thickness of arista base. Space between notopleural depression and posthumeral setae with at least 15 rather long accessory hairs. Processes of sternite V long, with a fringe of setae on basal half on inner margins, apical half bare apart from a single strong seta at extreme apex. Wing length 4.3–5 mm. **apiciseta** Ringd.
- Arista with longer hairs, the length of the longest hair at least equals the thickness of arista base. Space between notopleural depression and posthumeral setae with at most 7–9 shorter accessory hairs. 1+1 posthumeral setae..9
- 9 The stronger costal spines before distal break not, or only a little shorter than small crossvein. Space between notopleural depression and posthumeral setae with about 7–9 accessory hairs. Anterior katepisternal seta generally with a longer setulose hair beneath it. Acrostichal setae fairly strong, especially presuturals, biserial without hairs between rows. Hind tibia with 3–4 *av* setae. Legs dark brownish black. Wing length 4.5–5 mm
..... **jacobaeae** Hardy
- The stronger costal spines before distal break shorter. Space between notopleural depression and posthumeral setae almost bare, at most 3–4 very short and fine hairs. Acrostichals rather fine. Hind tibia with 2 *av* setae. Legs brownish yellow, tibiae more yellowish than femora. Mid femur and hind femur often with darker apices. Wing length 5.5 mm. **maculipes** Zett.
- 10 Mid tibia with one or more *av* setae on apical half..... 11
- Mid tibia without *av* setae. 13
- 11 Mid tibia with 2 *ad* setae, or if with only one *ad* seta, then 1 pair of very long and stronger presutural acrostichal setae and the remaining acrostichals (except prescutellar pair) very short and fine. The spines on costa before distal break as long as small crossvein, the *av* spinules slightly longer than width of costa, especially between costal breaks. Mentum slender, 4.5 times as long as wide. Wing length 6.0 mm. **biciliaris** Pand.
- Mid tibia with only 1 *ad* seta. Acrostichals either strong and biserial, or fine and multiserial. Mentum shorter and wider, 1.8–1.9 times as long as wide..... 12
- 12 Acrostichal setae well developed, biserial without hairs between rows. Scutum almost devoid of small setulae or hairs. Mid tibia with the *av* seta (or when two are present the lower one) almost at same level as lower *pd* seta. Visible part of genitalia entirely dark. Wing length 5.8 mm. **spinosa** Rond.
- Acrostichal setae short and hair-like, in 4–6 rows, apart from 1–2 strong pairs in front of suture. Scutum with numerous short accessory hairs. Lower *av* on mid tibia distal to level of lower *pd*. Squama and wing base orange-yellow. Visible part of genitalia largely orange yellow. Wing length 5.8 mm. **sericea** Mall.
- 13 Peristomal margin in lateral view upturned and projecting beyond level of parafrenal angle. Lower margin of head straight. Genal setae with a few upwardly curved setulae. Mentum long and thin, dusted. Parafrenals and genae often reddish brown. Mid tibia with setae short and fine. Hind femur with some *av* setae at least twice depth of femur. Dusting of pleura with a greenish blue tinge, especially katepisternum. Processes of sternite V short and pointed. Wing length 3.8–5 mm. **tuxeni** Ringd.
- Without the above combination of characters 14
- 14 Mid tibia with *ad* seta strongly developed, as long and strong as the *av* apical seta. Notopleural depression without any hairs about bases of the two long setae. Postpedicel at least twice as long as wide 15
- Mid tibia with *ad* seta much less developed, distinctly shorter than *av* apical, or if as long (*latifrons*) then notopleural depression with some hairs about base of one or both setae, and postpedicel only a little longer than wide, or (*silvatica*) then tibiae yellow-orange or brownish and abdomen subcylindrical. 18
- 15 Prealar seta distinctly longer than posterior notopleural. Hind femur with an almost complete row of long strong *pv* setae. Lower anterior katepisternal seta at least half length of upper anterior seta. Thorax, abdomen and legs shining when viewed from some angles. Abdomen viewed from behind at a low angle dusted pale bluish grey with a black median vitta, as wide as hind tibia. Wing length 6 mm. **profuga** Stein
- Prealar slightly to much shorter than posterior notopleural, usually distinctly shorter. Hind femur with at most 1–3 long fine *pv* setae near middle. Lower anterior katepisternal seta finer and less than half length of upper anterior seta. 16
- 16 Hind femur with 1–2 longer setulose *pv* hairs near middle. 1 pair of strong presutural acrostichal setae followed

- by multiserial fine hairs on either side of suture. Prealar seta at most only slightly shorter than posterior notopleural seta. Eye margins on frons almost touching. the stronger costal spines before distal break as long as small crossvein. Processes of sternite V more or less broadly shining black on inner margins. Wing length 5.5 mm. **fugax** Mg.
- Hind femur with only a few short setulose *pv* hairs, none longer than greatest depth of femur. Prealar seta decidedly shorter than posterior notopleural, The stronger costal spines before distal break distinctly shorter than small crossvein. Processes of sternite V not shining black on inner margins. 17
- 17 Eyes separated by much less than width of postpedicel. Parafrontals on upper part just below anterior ocellus without a pair of short setulae. Arista strongly pubescent, longest hairs about twice as long as thickness of arista base. Scutum, seen from behind, with a distinct dark median vitta in front of suture between two pale dusted ones. Acrostichals strong, biserial, without hairs between rows. sternite V processes long and wide with a fringe of pale hairs on inner margins. Basal part of sternite V reddish brown. Wing length 5.3 mm..
..... **hucketti** Ringd.
- Eye margins on frons separated by about distance separating posterior ocelli. Parafrontals on upper part just below anterior ocellus with a pair of short setulae. Arista much shorter pubescent. Scutum, seen from behind, uniformly yellowish dusted, with or without the faintest trace of a dark median vitta. Acrostichals mainly short and biserial with a few hairs between rows. Processes of sternite V short and densely setulose **depressa** Stein
- 18 Prealar seta absent. Genal setae biserial. Acrostichal setae very fine and multiserial, except for the anterior presutural and prescutellar pair. Dusting of thorax and abdomen light olive-grey. Mentum dusted. Legs matt brownish or yellowish brown. Wing length 4.0 mm.. **fonsecai** Ack.
- Prealar seta present (sometimes small)..... 19
- 19 Mentum long, slender and shining blackish, 0.70–0.75 times head height. Gena very narrow, only about 0.1 times eye height in lateral view, and setae uniserial. 1 pair of rather long presutural acrostichal setae. Thorax and abdomen deep black, somewhat shining in certain lights, scutum viewed from in front at a low angle entirely matt black Wing length 4 mm..... **helviana** Mich.
- Mentum shorter, less than half head height (0.44)..... 20
- 20 Katepisternals 2 + 2, a well developed lower anterior seta present even though shorter and weaker than the upper one. Legs often reddish brown, tibiae sometimes more orange-yellow 21
- Katepisternals 1 + 2, or if a short fine seta is present beneath front one (*sanctimarci*) then longest hairs of arista shorter than its basal thickness and sternite V largely reddish yellow.. 22
- 21 Abdomen subcylindrical in basal half. Mentum dusted, not shining. Outer posthumeral seta weak and half length of posterior inner posthumeral seta and much thinner, or absent. Median vitta on abdomen very narrow, half distance between apical scutellar setae or less. Stronger spines before distal break as long as small crossvein. Longest *av* and *pv* setae on hind femur twice depth of femur. Arista weakly swollen at base, tapering with longer pubescence, almost twice as long as its basal thickness. Hind tibia often with a short *pv* apical seta. Wing length 5.5 mm. **silvatica** R. D.
- Abdomen compressed in basal half. Mentum shining. Outer posthumeral seta well developed, nearly as long as, and quite as strong as posterior inner posthumeral seta. Median vitta on abdomen wide, as wide as distance between apical scutellar setae. Stronger spines before distal break half length of small crossvein. Longest *av* and *pv* setae on hind femur not more than 1.5 times depth of femur. Arista abruptly swollen at base with shorter pubescence, not longer than basal diameter. Wing length 5.3 mm. **rupicapra** Mik
- 22 Notopleural depression with some hairs about base of one or both setae. Antennae inserted distinctly below middle of head, so that face is shorter than distance from anterior ocellus to antennae. postpedicel hardly 1.5 times as long as wide. Hind femur with some long fine setae which are twice depth of femur. Wings distinctly brownish at base and with distinctly dark veins. Processes of sternite V long, often projecting downwards. Wing length 3.5–3.7 mm. **latifrons** Zett..
- Notopleural setae without any hairs about their bases. Antennae inserted above middle of head, or at least not below. postpedicel twice (or more) as long as wide. Wings not blackish at base and veins not especially darkened. 23
- 23 Prealar seta as long as posterior notopleural seta. Lower hind katepisternal almost as long as upper. Hind femur with strong *av* setae along whole length. 24
- Prealar seta shorter than posterior notopleural. Lower hind katepisternal at most two-thirds length of upper, or if

- almost as long (*verticella* Zett.) then hind femur with long *av* on apical half only. 27
- 24 Processes of sternite V strikingly long, practically bare except for a dense cluster of erect setulose hairs at base and a few shorter hairs at tip. Mid femur and hind femur with *pv* setae not longer (on hind femur shorter) than greatest depth of femur. Head, viewed directly from in front, with upper part of parafacials dark brownish black, contrasting with the light grey dusted genae and interfrontalia. Wing length 4.5–5.5 mm. **seneciella** Mde
- Processes of sternite V much shorter and more extensively setose and haired. At least some of the *pv* on hind femur longer than greatest depth of femur 25
- 25 Scutum, seen from behind, almost uniformly dull deep brownish black, in front of suture with a more or less distinct pair of paler dusted vittae between lines of setae. Abdomen, seen from behind, brownish grey dusted with a broad, somewhat ill defined dark median area. Interfrontalia velvety black. Wing length 5.6 mm
..... **gnava** Mg.
- Scutum, seen from behind, largely dusted olive grey with distinct darker vittae. Abdomen, seen from behind, rather densely pale dusted with a very narrow darker median vitta. 26
- 26 Processes of sternite V largely reddish yellow (more conspicuous after death). Accessory hairs on scutum and scutellum (especially apical setulae), numerous and rather long, those between intra-alar, prealar and supra-alar setae half length of prealar seta. Anterior katepisternal seta with a fine setulose hair below it, which is longer than other hairs on katepisternum. The long hairs of squamal fringes rather dark brownish. Mentum rather short, not as long as palpus. Most of head dark in ground colour, viewed from directly in front with upper part of parafacials dark brownish black, contrasting with the light grey dusted genae and interfrontalia. 1 + 1 posthumeral setae. Wing length 5.5 mm. **sanctimarci** Cz.
- Processes of sternite V entirely dark, clothed almost all over with short setulose hairs. Accessory hairs on scutum and scutellum sparse and very short, those above prealar seta few in number and less than a quarter length of prealar. No setulose hair distinguishable from the other hairs below anterior katepisternal seta. The long hairs of squamal fringe pale yellow. Mentum narrow and longer than palpus. Most parts of head orange or brownish in ground colour. Wing length 4.6 mm. **sonchi** Hardy
- 27 Mid tibia without a distinguishable *ad* seta, occasionally a minute *ad* seta is present, but always shorter than the *pd* seta. Lower posterior katepisternal quite three-quarters length of upper. Hind femur with long *av* on distal half only. Scutum, seen from behind, almost uniformly dusted brownish grey without, or with only very indistinct darker vittae. Dorsal surface of scutellum without setulae (only basal laterals, discals and apical setae). Light grey or brownish dusted species. Wing length 3.5–3.7 mm. **verticella** Zett.
- Mid tibia with a short but distinct *ad*. Lower posterior katepisternal at most two-thirds length of upper. Hind femur with strong *av* setae along whole length. Scutum, seen from behind, with a conspicuous median dark vitta flanked by pale dusting, at least in front of suture. 28
- 28 The stronger costal spines before distal break as long as small crossvein. Acrostichal setae mainly biserial. Hind femur on basal half, with only one long *pv* near base, and sometimes with another about middle. Eye margins on frons separated by almost width of ocellar tubercle. Thorax light grey dusted. Wing length 3.5 mm. **cuspidata** Collin
- The stronger costal spines before distal break much shorter than small crossvein. Hind femur on basal two-thirds, with a row of 4–5 long *pv* setae. Thorax darker grey dusted. 29
- 29 Acrostichals rather numerous, irregularly quadriserial and mainly fine and hair-like. Accessory hairs of scutum numerous and rather long. Processes of sternite V with only short fine hairs on lower margin. Cercal plate with apical third laterally compressed. Wing length 4.5 mm. **laterella** Collin
- Presutural acrostichals much fewer, mainly biserial, multiserial postsuturally. Cercal plate broad, ending in two short processes. 30
- 30 Cercal plate with 2 roundish projecting lobes on apical margin. Processes of sternite V with a row of short spinules on inner margins, which are convex. Anterior frontal setae and cruciate setulae especially long. Spinules before distal break more distinct. Wing length 4.6 mm. **phrenione** Ség.
- Cercal plate otherwise 31
- 31 Cercal plate with 2 long pointed lateral projecting lobes on apical margin, which are widely spaced. Mentum less stout. Processes of sternite V long and narrow and widely spaced, concave on inner margins, and with only a row of cilia. Anterior frontal setae and cruciate setulae less strong. **dissecta** Mg.

- Cercal plate with a median projecting lobe on apical margin, which is divided apically into two lobes. Mentum stout. Processes of sternite V with convex inner margins, bearing a few short spinules. Anterior frontal setae and cruciate setulae short.....**lobata** Coll.

CALYTHEA

Males & females

- 1 Prosteronum completely bare. Metapleuron bare, without hairs adjacent to hind spiracle posteroventrally. Fore tibia in male with a strikingly long *d* seta at about middle, in female shorter, and 2 subapical *d* setae which are strong and spinose..... **pratincta** Mg.
- Prosteronum with setulae or hairs on lateral margins. Metapleuron with a few hairs adjacent to hind spiracle posteroventrally. Fore tibia without a long *d* seta **nigricans** R.D.

CHIASTOCHETA

Males

- 1 Genae at narrowest part below eyes narrower than palpus. Abdomen seen from above scarcely longer than wide. Prehypopygial tergite complex (7+8) shining black laterally, as is the hypopygium 2
- Gena at narrowest part at least as wide as, generally much wider than palpus. Abdomen seen from above distinctly longer than wide. Prehypopygial tergite complex and hypopygium not shining black..... 2
- 2 Processes of sternite V before apices with a ventrally directed tooth-like projection..... **dentifera** Hennig
- Processes of sternite V without such projections..... 3
- 3 Processes of sternite V at apices with a group of longer and stronger setae. Surstylus at apex not incised. Cercal plate deeply incised at apex, with widely separated processes. Hind tibia with 2–3 *av* setae, which are more or less distinctly longer than the adjacent setulae **setifera** Hennig
- Processes of sternite V without strikingly long and strong setae. Surstylus at apex incised 4
- 4 Hypopygium relatively small, in profile view scarcely reaching further posteriorly than the prehypopygial tergite complex (7+8). Hind tibia as in *setifera* with 2–3 rather distinct *av* setae..... **trollii** Zett.
- Hypopygium large or very large, in profile distinctly reaching further posteriorly than prehypopygial tergites. Hind tibia without distinct *av* setae..... **inermella** Zett.

CHIROSLA

Males

- 1 Frontalia not wider than postpedicel..... 2
- Frontalia wider than width of postpedicel 8
- 2 Arista long plumose, longest hairs as long as width of postpedicel, the hairs arising from arista in more than one plane. Eyes separated by slightly more than diameter of anterior ocellus. Head small in relation to thorax. Wings tinted yellowish. Prealar shorter than posterior notopleural seta. Scutum and abdomen with shining blackish patches. Mid femur with 3 erect, strong *v* setae in basal half. Katepisternal setae 1 + 2..... **flavipennis** Fall.
- Total arisal hairing at most one-third width of postpedicel, or arista virtually bare 3
- 3 Lateral margin of scutellum below strong setae without fine setulae, also tip ventrally without pubescence. Hind femur without a row of strong *pv*, only fine hairs basally. Arista short pubescent, the hairs not longer than basal diameter of arista. Eye margins on frons at narrowest part separated by not more than twice diameter of anterior ocellus, and uppermost orbital seta slightly closer to anterior ocellus than to crossed interfrontal setae which are somewhat stronger than upper orbitals. Abdomen with shining blackish areas. Prealar seta distinctly shorter than posterior notopleural seta. Katepisternal setae 1 + 2..... **cinerosa** Fall.

[Some males from Scotland (Rogie Falls, ROSS & CROMERTY) with more pointed apices to lobes of sternite V. May

represent a distinct species. This form also occurs in Japan (see Suwa, 1974)]

- Lateral margins of scutellum setulose below strong setae, ventral surface at tip with or without fine pubescence. Hind femur with a more or less complete row of stronger *pv* setae (finer and on basal half only in *aberrans*)... 4
- 4 Arista long pubescent, total width of hairing about half width of postpedicel. Eye margins separated by about 1.5–2 times diameter of anterior ocellus. Uppermost orbital seta closer to anterior ocellus than to cruciate interfrontals. Hind femur ventrally with long fine *av* and *pv* rows of setae and fine hairs. Hind femur with 4–5 *pv*, mainly in basal half. Abdomen with shining black patches, and numerous erect setae on tergites. Hind tibia with 1 *ad*, not as strong as adjacent *pd* **histicina** Rond.
- Arista shorter pubescent, total width of hairing not more than basal thickness of arista 5
- 5 No cruciate interfrontal setulae present. Eyes on frons separated at narrowest point by about 2.5 times diameter of anterior ocellus. Prealar seta longer than posterior notopleural seta. Mid tibia with 4–5 *p* setae. Katepisternal setae 2 + 2. Larger species, wing length mm. **griseifrons** Ség.
- Small cruciate interfrontal setae present 6
- 6 Fore tibia with a rather long *d* preapical seta which is three-quarters length of fore tarsomere I. Upper orbital setae closer to cruciate interfrontal setae than to anterior ocellus. Abdomen viewed from behind with shining blackish patches. **betuleti** Ringd.
- Dorsal preapical on Fore tibia shorter, not longer than half length of fore tarsomere I. Upper orbital seta equidistant or closer to upper anterior ocellus than to cruciate interfrontal setae. Abdomen more greyish dusted. Larger species, with stronger setae 7
- 7 Ventral setae on hind femur strong. 7–8 *av* on hind tibia, short and fine at base, becoming longer and stronger towards apex, the apical one longest and distinctly stronger than the preceding setae. Fore tibia with a distinct long median *p* seta. Abdomen viewed from behind with a very narrow dark median vitta and grey dusted lateral areas **similata** Tiensuu
- Smaller species, with weaker setae. Ventral setae on hind femur shorter, fine and hair-like, 2–3 *av* on hind tibia short and fine **aberrans** Collin
- 8 Fore tarsus with segments 1–3 with whitish yellow unpigmented areas. Width of frontalia at narrowest part about 1.5 times width of postpedicel. Orbits narrower at narrowest part of frons than they are opposite anterior ocellus. Arista with hairs about as long as thickness of arista base. Abdomen narrow, grey dusted when viewed from behind with a wide suffused median vitta and long erect marginal setae on tergite V **albitarsis** Zett.
- Fore tarsus normal, dark 9
- 9 Sternite V very large, processes projecting below abdomen in profile, abdomen short, club-like, with shining black patches. Mid tibia with a strong *ad* seta. Eyes widely separated, frontalia 2.5–3 times width of postpedicel **grossicauda** Strobl
- Sternite V of normal size, processes not strikingly visible in profile. 10
- 10 Small species, wing length about 3mm. Abdomen entirely shining black, when viewed from behind, and with long discals and lateral marginals on tergites 2–5. Legs weakly setose, Fore tibia without setae, Mid tibia with a small *ad*. Scutellum without marginal setulae or fine ventral hairs at tip beneath. The stronger costal spines before distal break minute. **montana** Pok.
- Thorax and abdomen grey dusted without shining black patches, latter with a rather diffused, indistinct darker median vitta 11
- 11 Eyes widely separated, frontalia 2.5–3 times width of postpedicel. Katepisternal setae 1 + 1, no differentiated lower posterior seta. Head viewed from a low angle in front with interfrontalia more than twice as wide as a parafacial, both equally grey dusted. Parafacial angle in lateral view rather projecting in front of level of receding lower peristomal margin, postpedicel rather large, arista short and swollen in basal half **crassiseta** Stein
- Eyes less widely separated, frontalia hardly twice width of postpedicel. Katepisternal setae 1 + 2, lower posterior seta about half length of upper, though finer. Head viewed from above and in front with shining silvery grey parafacials in contrast to dark and narrow interfrontalia, then as angle of vision becomes lower, the interfrontalia becomes silvery and lighter than parafacials, and at narrowest point is not much wider than a parafacial. Postpedicel not so large, arista less strongly swollen in basal part, and pubescence more distinct **nigripes** Bezzi

CHIROZIA

Females

- 1 Arista long plumose, longest hairs as long as width of postpedicel and arising in more than one plane. Larger, blackish shining species with yellowish wings **flavipennis** Fall.
- Arista with hairs much shorter, longest hairs not longer than half width of postpedicel, or practically bare.....
- 2 Interfrontalia without a pair of cruciate setae **griseifrons** Ség.
- Interfrontalia with a pair of cruciate setae 3
- 3 Abdomen viewed from behind dull greyish, except for a darker median vitta 4
- Abdomen viewed from behind all shining black, or at least with some shining blackish lateral areas in addition to median vitta 6
- 4 Mid tibia generally with 2 *ad*, if only one present then scutellum with a few lateral setulae, and arista distinctly pubescent. Frons at level of lunule at least a third head width, gena below eyes equal to width of postpedicel. Abdomen without long or strong erect setae, the short marginal setae hardly differentiated and decumbent.....
- **albitarsis** Zett.
- Mid tibia with only one *ad*. If scutellum with lateral setulae, then frontalia at level of lunule about one quarter of head width, gena below eyes narrower, about half width of postpedicel; otherwise frontalia and genae wider and scutellum bare laterally. Abdomen with some strong erect setae. 5
- 5 Frontalia at level of lunule about a quarter of head width, gena narrow, one third width of postpedicel. Abdomen darker, with wider median vitta. Scutellum generally with some setulae on lateral margins.....
- Frontalia wider than half head width. Interfrontalia more than twice width of a parafacial, gena wider, at least three-quarters width of postpedicel. Abdomen greyish dusted with hardly discernible dark median vitta, and some erect setae on tergites III and IV. Scutellum without setulae on lateral margins **crassiseta** Stein
- 6 Lateral margins of scutellum without setulae, though one or two may be present at tip between stronger apical setae, but no pubescence at tip. Mentum strongly swollen. Katepisternal setae 1 + 1. Hind femur without *pv*. Prealar shorter than posterior notopleural seta. Black species with shining areas, especially abdomen, which has no darker median vitta. Wings yellow tinged..... **cinerosa** Zett.
- Lateral margins of scutellum with a few short setulae 7
- 7 Arista pubescent, with hairs longer than diameter at base. Abdominal tergites III–V with long strong semi-erect marginal and discal setae. Hind femur with long *av* and *pv*. Katepisternal setae 1 + 2, lower posterior seta at least three-quarters as long as upper posterior. **histicina** Rond.
- Arista bare or very short pubescent, hairs not as long as basal arista thickness 8
- 8 Small species, about 4 mm wing length..... 9
- Larger species, wing length 5 mm or more..... 10
- 9 Abdomen shining blackish, viewed from behind. Fore tibia without setae..... **montana** Pok.
- Abdomen with some grey dusting. Fore tibia with a distinct *ad* and *pd*. **grossicauda** Strobl
- 10 Hind tibia with about 4 *av* of which the apical one is longer or at least more robust than the preceding ones. Scutellum with some fine pale pubescence at tip ventrally in addition to the apical and lateral setulae
- **similata** Tiensuu
- Hind tibia with 2–4 *av*, but the apical one is not noticeably more robust than the others 11
- 11 Smaller, more greyish species. Scutellum without pale ventral pubescence at tip. Hind tibia with only 2 *av*
- Larger, darker species, abdomen more shining blackish. Scutellum generally with some fine pale pubescence ventrally at tip. Abdomen generally with erect discal setae on tergites III–V. Hind tibia with about 4 *av*.
- **betuleti** Ringd.

DELIA

Males

- 1 Fore tibia with a distinct blunt curved spur which arises from the posterior or posteroventral apical margin, and which is curved forwards more or less in line with the tarsomere I; as this spur is chisel-shaped, view from different angles to determine bluntness. (*Delia radicum*, *floralis* and *planipalpis* have a spur which is more or less pointed, and are included in both sections)..... 2
- Fore tibia without a blunt spur as described above, but a short or a longer pointed spur or *pv* seta may be present (if a seta is present, it is directed away from the tibia in a *pv* direction) 20
- 2 Ventral surface of costa setulose below the *av* spinules. Notopleural depression with a few hairs in addition to the two strong setae..... 3
- Ventral surface of costa bare. Notopleural depression bare apart from the two strong setae 5
- 3 Hind femur with a dense brush of ventral setulose hairs at base on *av*, *v* and *pv* surfaces, longest hairs near base. No *av* or *pv* setae except 1–2 apically. sternite V with fewer and shorter long lateral and apical setae. sternite IV more or less parallel-sided. Apex of cercal plate blunter, sides straight to slightly convex. Surstylus wider medially and shorter. Pregonite with lower setae placed at middle of posterior margin of gonite which is round. Arista with longer hairs, longest as long as diameter at base **radicum** Linn.
- Hind femur without dense basal hairs and setae. Sternite V with longer lateral and apical setae. Sternite IV shorter, or with curved sides. Arista with shorter or longer hairs 4
- 4 Hind femur with complete row of long *av* setae. Hind tibia with complete rows of short *av* and *pv* setae. Wings yellowish. Abdomen with median vitta narrow. Scutum with 3 wide darker vittae, slightly shining. sternite V with the long strong apical lateral setae less numerous, and which are confined to apical half of processes. Cercal plate shorter, with straight or convex sides. Surstyli narrower and longer. Pregonite with ventral seta placed near lower corner of gonite. Arista with longer hairs **floralis** Fallén
- Hind femur with *av* setae in apical half only, no strong *pv* setae. Hind tibia with weak *av* present, a few small *pv* in basal half. Wings paler. Abdomen with median vitta distinct, sharply defined. Scutum greyer with only faint vittae. Sternite V with longer stronger lateral setae more numerous, reaching almost to base of processes. Cercal plate pointed at apex, sides slightly concave. Surstyli wider medially, tapering towards apex, shorter than *floralis*. Sternite IV shorter than *radicum*, narrowing basally. Arista with shorter hairs, not as long as arista diameter at base..... **planipalpis** Stein
- 5 Mid metatarsus with a dorsal fringe of lengthened setulae which are longer than depth of metatarsus (longest setae equal to twice depth of metatarsus)..... 6
- Mid metatarsus with only short setulae which are not longer than depth of metatarsus 9
- 5 Hind tibia with a complete row of about 18-20 *pv* setulose hairs on whole length, which are more or less the same length and are more or less erect. Processes of sternite V with a single spatulate seta **florilega** Zetterstedt
- Hind tibia without a complete row of *pv* setulose hairs, at most 7–8 setulae in proximal half of tibia, or if extending over more than proximal half, then setulae gradually become shorter distally..... 7
- 7 Mid tarsomere I with a fringe of lengthened setulae on first 3 tarsomeres, becoming shorter distally. Scutum, seen from behind, uniformly pale ash grey dusted without discernible vittae..... **tarsifimbria** Pandellé
- Mid tarsomere I with a fringe which does not continue onto following segments..... 8
- 8 Mid tibia without an *ad* seta, Hind tibia with only 1–2 *pv* setulae. Presutural acrostichals rows closer together, the strong pair separated by about 0.3 times distance from dorsocentral rows. Proepimeron with 2 setae without any associated hairs. Processes of sternite V with 2 blunt subapical setae set close together. Mid tibia without an *ad* seta. Mentum more or less shining with sparse dusting. Distal section of aedeagus without paraphalli but bearing numerous spicules..... **fabricii** Holmgren
- Mid tibia with a distinct *ad* seta, Hind tibia with 7–8 *pv* setulae. Presutural acrostichals rows separated by about 0.8 times distance from *dc* rows, the space between the acrostichals densely haired. Proepimeron with 7-8 setulose hairs of different length without any distinct setae; processes of sternite V with only 1 blunt preapical seta. Distal section of aedeagus with paraphalli but without spicules..... **tumidula** Ringdahl

- 9 Prealar seta present 10
 – Prealar seta absent 17
- 10 Hind tibia with a complete row of about 20 erect *pv* setulose hairs which are more or less the same length. Scutum, seen from behind, with a distinct dark brownish median vitta. Hind femur with only 4–6 *av* setae on distal half **platura** Meigen
 – Hind tibia with at most 7–8 *pv* setulae in proximal half of tibia, or if extending over more than half length of tibia, then setulae are of differing length, becoming shorter distally 11
- 11 Mid tibia with 2 or more *pd* setae (*antiqua* sometimes with only 1 *pd*, keyed out in both sections) 12
 – Mid tibia with only 1 *pd* seta 15
- 12 Mid tibia with 1 or more *av* setae. Hind femur with numerous long and fine *pv* setulae and setulose hairs, Hind tibia with some long *pv* setae in basal two-thirds, and 5–6 strong *av* setae. Costal spine long, at least as long as small cross-vein. Eye margins on frons separated by distance between posterior ocelli. Processes of sternite V with 4–5 preapical blunt spines **lamelliseta** Stein
 – Mid tibia without an *av* seta 13
- 13 Parafacial about 0.75 times width of postpedicel. Arista long pubescent, total width of hairing about 0.5 times width of postpedicel. Abdomen with narrow indistinct median vitta (more distinct basally on each tergite). Mid tibia without an *ad* seta. Surstyli, viewed in profile, rather abruptly bent in basal half. Processes of sternite V with several rather irregular stout setae subapically **nigrescens** Rondani
 – Parafacial as wide or wider than postpedicel. Arista short pubescent, longest hairs not longer than diameter of base. Abdomen with a distinct black median vitta 14
- 14 Hind femur with 10–12 long *av* setae, which extend along whole length of femur, the basal setae shorter. Prealar seta long and strong, longer than posterior notopleural seta and directed outwards. Abdomen semi-cylindrical. The longer spines before distal break hardly longer than anterior wing spinules. Squama intensively yellowish orange, contrasting with brownish wing base. Thorax brownish black. Hind tibia with 5 *av* setae. Processes of sternite V without blunt preapical setae. **interflua** Pandellé
 – Hind femur with 5–7 strong *av* setae in distal two-thirds. Prealar seta shorter than notopleural seta, about two-thirds its length. Abdomen strongly compressed basally. Squama light brownish, concolorous with wing base. Thorax densely dusted light greenish grey dusted. Hind tibia with 3 *av* setae. The longer spines before distal break about twice as long as anterior wing spinules. Processes of sternite V with a pair of long fine setulae
 **antiqua** Meigen
- 15 Parafacial at narrowest part (opposite postpedicel) distinctly narrower than width of postpedicel. Eyes practically touching on frons, separated at most by 0.75 times diameter of anterior ocellus. Presutural acrostichals more widely separated, distance between rows equal to distance from *dc* rows. Hind femur without *pv* setae medially. Processes of sternite V with only 2 blunt preapical setae **diluta** Stein
 – Parafacial at narrowest part as wide as width of postpedicel. Eyes more widely separated by at least diameter of anterior ocellus. Presutural acrostichals rows slightly closer to each other than from *dc* rows 16
- 16 Hind femur with 3–4 distinct fine median *pv* setae. The longer spines before distal break small, not more than twice as long as costal diameter. Smaller, darker grey species with base of arista strongly swollen. Processes of sternite V with 3–4 pointed preapical setae. **flavogrisea** Ringdahl
 – Hind femur without median *pv* setae. The longer spines before distal break longer, 3–4 times as long as costal diameter. Larger, lighter grey species with base of arista less strongly swollen. **antiqua** Meigen
- 17 Mid tibia with an *ad* seta, sometimes very small. Hind tibia with numerous biserial erect *a* and *av* setulose hairs. Thorax and abdomen densely grey dusted, the latter with a wide diffused vitta on tergites III–V, tergite IV with some long semi-erect hindmarginal setae. Parafacials and genae wider than width of postpedicel. Processes of sternite V long, without subapical blunt spinules **hirtitibia** Stein
 – Mid tibia without an *ad* seta 18
- 18 Processes of sternite V without blunt spatulate spinules. Arista short plumose, total width of hairing equal to at least three-quarters width of postpedicel. Abdomen and legs rather long, tibiae yellow or orange-brown, femora darker brown or black. Wing base strongly brownish orange **coarctata** Fallén
 – Processes of sternite V with some blunt spinules 19

- 18 Legs mainly yellowish. Abdomen densely light grey dusted without a median vitta. Hind tibia with 1 *av* seta **lavata** Boheman
- Legs mainly dark, only knees yellowish. Abdomen darker grey dusted with a distinct dark median vitta on all segments. Hind tibia with 2 *av* setae. Processes of sternite V with numerous strong multiserial spatulate setae..... **pallipennis** Zetterstedt
- 20 Mid tibia without an *ad* seta (if an *ad* seta is present, then notopleural depression has a few hairs in addition to the two strong setae and costa with hairs on ventral surface) 21
- Mid tibia with 1 or more *ad* setae and notopleural depression bare apart from the 2 strong setae 25
- 21 Prealar seta absent. Mentum short and strongly swollen. Mid tibia sometimes without a *pd* seta. Hind tibia with only 2–3 *ad* setae. All tibial setae short. Abdominal sternite III wide and bearing numerous erect setulae. Anterior costal spinules and longer spines before distal break short and inconspicuous, the latter not longer than width of costa..... **pruinosa** Zetterstedt
- Prealar seta present. Notopleural depression with a few hairs in addition to the 2 strong setae 22
- 22 Ventral surface of costa bare. Lower katepisternal seta nearly as long and strong as upper seta. Abdominal sternite III with numerous long setulose hairs which are directed posteriorly. Hind tibia with at most 1–2 *pv* setulae **carduiformis** Schnabl
- Ventral surface of costa with a row of setulae on almost whole length 23
- 23 Hind femur with a dense brush of ventral setulose hairs at base on *av*, *v* and *pv* surfaces, longest hairs near base. No *av* or *pv* setae except 1–2 apically. (For extra characters for the following three species, see couplets 3 and 4)..... **radicum** Linn.
- Hind femur without dense basal hairs and setae..... 24
- 24 Hind femur with complete row of long *av* setae. Hind tibia with complete rows of short *av* and *pv* setae. Wings yellowish. Abdomen with narrow median vitta. Scutum with 3 wide darker vittae, slightly shining. sternite V with long strong apical lateral setae less numerous, and which are confined to apical half of processes. Arista with longer hairs **floralis** Fallén
- Hind femur with *av* setae in apical half only, no strong *pv* setae. Hind tibia with weak *av* present, a few small *pv* in basal half. Wings paler. Abdomen with distinct median vitta, sharply defined. Scutum greyer with only faint vittae. Arista with shorter hairs. sternite V with longer stronger lateral setae more numerous, reaching almost to base of processes. Arista with shorter hairs, not as long as diameter at base..... **planipalpis** Stein
- 25 Abdominal tergite III with some long distinct setae on lateral posterior margins (in a ventral position) reach the end of abdomen (or nearly so) 26
- Abdominal tergite III without long setae 30
- 26 Mid tarsomere II ventrally with a swelling (*criniventris* has an extremely small swelling and is included in both sections)..... 27
- Mid tarsomere II without a ventral swelling 29
- 27 Tibiae partly yellowish, especially hind tibiae. Sternite III bare medially on posterior margin, but with long setulae and hairs laterally. Tergite III with long setae on posterior margin laterally which extend beyond apex of abdomen. Larger species, W.L. about 6 mm. **criniventris** Zetterstedt
- Legs dark..... 28
- 28 Abdominal sternite III widened on posterior margin, which bears short setulose hairs medially (not reaching more than halfway along sternite IV) and with long setae on lateral posterior corners **penicillosa** Hennig
- Abdominal sternite III not so strongly widened, projecting tongue-like and with dense long setae on posterior half which are directed posteriorly and reach posterior margin of sternite IV **penicillaris** Rondani
- 29 Tibiae partly yellowish, especially hind tibiae. Abdominal 3rd sternite III bare medially on posterior margin, but with long setulae and hairs laterally. Tergite III with long setae on posterior margin laterally which extend beyond apex of abdomen. Larger species, W.L. about 6 mm. **criniventris** Zetterstedt
- All tibiae dark. Abdominal sternite III with dense setulae and hairs on whole of disc, projecting ventrally and visible in lateral view. Tergite III with much shorter setae on posterior margin, their apices not reaching beyond sternite V. Smaller species, W. L. about 4 mm. **piliventris** Pokorny

- 30 Hind tibia with a complete row of *pv* setulae 31
 – Hind tibia without a complete row of *pv* setulae, although some *pv* setulae may be present in basal two-thirds 33
- 31 Prealar seta absent. Parafacials at least 1.5 times as wide as postpedicel. Mentum shining black. Thorax and abdomen densely silver-grey dusted, wing membrane whitish. Median vitta on abdomen narrow and indistinct **albula** Fallén
 – Prealar seta present though small. Median vitta on abdomen distinct 32
- 32 Hind femur with a complete row of long and erect *av* and *pv* setulose hairs which are about twice as long as depth of femur. Legs black. Median vitta of abdomen as wide as hind femur and expanded basally on each tergite **pilifemur** Ringdahl
 – Hind femur with complete rows of *av* and *pv* fine hairs, the *pv* row short, not longer than depth of hind femur. Prealar seta short but distinct. Legs with knees distinctly yellowish. Median vitta of abdomen distinct but narrow, not as wide as hind tibia and not expanded basally on each tergite. Processes of sternite V with 3 short, strong, slightly spatulate setae in a row **setigera** Stein
- 33 Mid tarsomere 2 with a ventral swelling 34
 – Mid tarsomere 2 without a ventral swelling 35
- 34 Abdominal sternite III flat and without erect setulae or hairs on disc or on posterior margin medially; sternites III and IV widened, sternite IV wider than III, and with long lateral setae. Thorax darker, with brownish dust, often without vitta. Wings and squamae brownish tinged. Larger species, W. L. 6 mm **cardui** Meigen
 – Abdominal sternite III swollen on posterior margin, and covered in dense erect setulae and hairs, those on posterior third short but dense; sternites III and IV widened, sternite III wider than 4th. Thorax paler, with greyish dust and a distinct brown median vitta. Smaller species, W. L. about 5 mm **nuda** Strobl
- 35 Prealar seta normally absent, sometimes small and fine. Abdominal sternite III widened and bearing 2 very long setae on each side on lateral margins. Thorax and abdomen with dense grey dusting, scutum with a distinct dark median vitta, which is slightly wider than hind tibia **quadripila** Stein
 – Prealar seta present even if short 36
- 36 Hind femur with a full row of fine long *pv* setae, and a full row of longer and stronger *av* setae on whole length; these *av* setae are at least twice the depth of femur. Processes of sternite V wide and bearing several spatulate setae. Wings darker towards base, with dark veins **frontella** Zetterstedt
 – Hind femur with only 1–2 preapical *pv* setae; processes of sternite V without spatulate setae 37
- 37 Abdominal sternite III with numerous long erect setae, which are mainly directed ventrally, the longest setae on proximal margin, becoming shorter distally. Wing with longer spines on costa before distal break as long as small crossvein. Notopleural depression generally with a few hairs in addition to the two strong setae. Prealar seta longer than posterior notopleural seta **linearis** Stein
 – Notopleural depression bare apart from the two strong setae. Wing with longer spines on costa before distal break shorter than small crossvein. Prealar seta shorter than posterior notopleural seta 38
- 38 Abdominal sternites III and IV widened and with long lateral setae and setulae which are directed posterolaterally **echinata** Séguy
 – Abdominal sternites III and IV not widened and without long laterally projecting setae 39
- 39 Abdominal sternite III with long posteroventrally projecting setulose hairs, which are longer proximally and become shorter distally. Surstylus about 3 times as long as cercal plate **coronariae** Hendel
 – Abdominal sternite III with long laterally projecting but without setulae on disc. Surstyli short, about 1.5 times length 6th sternite 6th sternite of cercal plate. Processes of sternite V short, about as long as length of base **kullensis** Ringd.

EGLE

Males

- 1 4 posterior dorsocentral setae. Notopleural depression with some hairs in addition to the two strong setae 2

- Only 3 posterior dorsocentral setae. Notopleural depression bare apart from the two setae. 3
- 2 Head longer than high. Thorax more blackish, longitudinal vittae not so distinct. Body with denser hairing, especially on the abdomen and hind femora. Body length 5 mm or more **ciliata** Walk.
- Head scarcely longer than high. Thorax more grey, with distinct longitudinal vittae. Body hairing less dense. Body length about 4.5 mm. **brevicornis** Zett.
- 3 Hind femur with long *pv* setae which are distinctly longer than width of femur, Hind femur also with long *av* setae. A group of long and strong setae present at the base of each process of sternite V. Inner margin of processes without a projection **rhinotmeta** Pand
- Hind femur with *pv* and *av* setae shorter, the length of the *pv* is less than the width of femur 4
- 4 Sternite V processes basally without long and strong black setae 5
- Sternite V processes basally with a group of long strong black setae, which are distinctly visible in dried specimens 8
- 5 Head in lateral view with lower margin more produced forwards, peristomal margin therefore somewhat in front of parafrontal angle, parafacial slightly more than width of postpedicel. Arista swollen basally for half length of arista. Lower margin of gena behind vibrissa with 2 rows of outwardly directed setae. Area above prealar seta with 8–12 setulose hairs. Hind tibia with only 3–4 short *av* setae. Larger species **parva** R.D.
- Head in lateral view with lower margin less produced forwards, peristomal margin level with parafrontal angle, parafacial narrower, less than width of postpedicel. Arista swollen basally for less than half length of arista. Area above prealar seta with less numerous setulose hairs, usually less than five 6
- 6 Arista swollen spindle-like in basal quarter, abruptly becoming thinner. Lower margin of gena behind vibrissa with 2 rows of outwardly directed setae. Hind tibia with 6–7 erect *av* setae and hairs, biserial basally. Processes of sternite V in lateral view apically widely rounded and bearing very small black spicules, processes longer and semi-shining black **subarctica** Hockett
- Arista with basal swelling longer, about one-third length of arista, and more gradually tapering. Lower margin of gena with only one row of outwardly directed setulae. Hind tibia with about 4 *av* setae. Small sp. about 2.4 – 3 mm 7
- 6 Cercal plate medially somewhat constricted, narrower. Base of surstylus wider. Pregonite about as long as wide **minuta** Mg.
- Cercal plate medially wider, more or less parallel sided from middle to apex. Base of surstylus narrower. Pregonite shorter than wide **lyneborgi** Ackland & Griffiths
- 8 Setae at base of sternite V processes more numerous, about 15-20, and longer, the processes also longer and ending in a small roundish flattened plate. Prealar seta shorter than posterior notopleural seta. Notopleural depression bare apart from the two stronger setae. **steini** Schnabl
- Setae at base of processes with only about 12 shorter setae, also processes shorter and apically pointed. 9
- 9 Hind tibia without *av* setae. Prealar seta shorter than posterior notopleural seta. Notopleural depression bare apart from the two strong setae. Genal setae behind vibrissae in one row. Penultimate section of M_{1+2} subequal or only slightly longer than lower crossvein. Abdominal sternite I almost bare, at most with 1–2 hairs on each side laterally. Posterior margin of sternite V (between processes) with two small setose protuberances. Usually only 1 proepisternal seta. Smaller species, body length about 2.5 mm. **inermis** Ack
- Hind tibia with a small but distinct *av* seta. Prealar seta equal to posterior notopleural seta. Notopleural depression usually with 1–3 setulose hairs in addition to the strong setae. Genal setae behind vibrissae usually in more than one row. Penultimate section of M_{1+2} distinctly longer than lower crossvein. Abdominal sternite I with 4–7 stronger setulose hairs. Posterior margin of sternite V with irregular hairs only. Usually 2 proepisternal setae present. Usually rather larger, body length 3 mm
..... **parvaeformis** Schnabl

EMMESOMYIA

Males

- 1 Sternite V entirely clothed with long bristly hairs, and without stronger bristles on inner margins of processes; in profile the apices of processes not bent downwards. Pregonite not deeply indented on posteroventral margin. Cercal plate weakly produced at apex into a blunt point. Hind femur with only 1–2 distinct *pv* about middle which are hardly longer than femur is deep (*socia* authors not Fall.) **grisea** R.D.
- Sternite V with cluster of strong bristles on inner margin of processes, otherwise quite short haired; in profile the apices of processes bent downwards. Cercal plate produced apically into a long sharp point. Hind femur with more numerous *pv* of which one or more about middle are quite 1.5 times as long as femur is deep **socia** Fall.

EMMESOMYIA

Females

- 1 Tergite VI narrow or almost triangular, entirely shining black. 7th segment with numerous short spinose setae. Cerci wider. Hind femur with several *pv* bristles of which one or two about middle are distinctly longer than femur is deep **grisea** R.D.
- Tergite VI broad and somewhat trapezoidal, more or less broadly grey dusted on hind margin. 7th segment with only normal setae. Hind femur usually with only one *pv* near middle which is no longer than femur is deep **socia** Fall.

EUSTALOMYIA

Males and females

- 1 Legs and palpus partly yellow **vittipes** Zett.
- Legs and palpus completely black 2
- 2 Arista long haired, the length of the hairs on upper and lower side are each equal to width of postpedicel. Mid vitta of scutum widened behind into a rounded spot **hilaris** Fall.
- Arista short haired or pubescent. Mid vitta of scutum equally wide throughout 3
- 3 The length of hairing of arista in total equal to width of postpedicel. Hind tibia with 7 *av* setae **histris** Zett.
- Hairing of arista significantly shorter, the arista is only pubescent. Hind tibia with 12 *av* setae **histris** Zett.

EUTRICHOTA (and Parapegomyia)

Males

- 1 Arista plumose, total width of hairing almost or exceeding width of postpedicel 2
- Arista almost bare, at most pubescent with the longest hairs not longer than basal diameter of arista 4
- 2 Arista long plumose, total width of hairing about 1.8 times width of postpedicel. Legs mainly yellow. Abdomen densely greyish dusted with only a trace of a median vitta. Generally a larger, more robust species (body length on average 8.5 mm). Processes of sternite V and hypopygium largely orange-yellow. *praepotens* Wied
- Arista shorter plumose, total width of hairing not more than 1.3 times width of postpedicel 3
- 3 Arista with longer hairs, total width of hairing more than width of postpedicel. Scutum and abdomen with some shining blackish reflections. Larger, more robust species. Processes of sternite V shorter, not as long as basal part. Cercal plate wider, almost rectangular; surstylus wider in profile and apically expanded, pregonite with 2 setulae. (*Parapegomyia*) (Parapegomyia) **schineri** Schnabl
- Arista short plumose, total width of hairing equal to width of postpedicel. Scutum and abdomen more grey

- dusted with less distinct blackish reflections. Smaller, slenderer species. Processes of sternite V longer than basal part. Cercal plate narrower and apically narrower to a blunt point; surstylus in profile slender, not widened apically; pregonite with only 1 setula on ventral lobe. (*Parapegomyia*) (*Parapegomyia*)
 **socculata** Zett.
- 4 Legs entirely dark. Phallopore with epiphallus basal and attached to a narrow anteriorly directed and constricted process. Pregonite with a group of 4-5 hairs on posterodorsal margin 5
- Legs largely yellow. Epiphallus basal to median, not constricted at point of attachment to phallopore. Pregonite with 1-2 setulae on posterodorsal margin. 6
- 5 Distance between eye margins on frons at narrowest part equal to diameter of anterior ocellus, orbits touching at this point. Dusting on scutum (viewed from above) slightly more bluish, and lateral dark vittae more distinct. Wings more yellowish tinged at base. tergite VI bare. Surstylus longer and more slender. Postgonite narrower. Distiphallus less heeled ventrally at base..... **pilimana** Ringdahl
- Distance between eye margins on frons at narrowest point 2 times diameter of anterior ocellus, orbits separated by an extremely narrow black midstripe. Dusting on scutum more greyish, lateral vittae less distinct. Wings more brownish tinged at base. tergite VI with a few setulae. Surstylus shorter and not so slender. Postgonite wider. Distiphallus strongly heeled at base ventrally **anderssoni** Hennig
- 6 Thorax rather finely grey dusted, scutum appearing extensively shining (especially on lateral declivities) in certain angles of light. Fore femur (and sometimes tibia) largely brown. Surstylus more robust and more widely separated in caudal view, distal section of aedeagus broader **frigida** Zett.
- Thorax more densely grey dusted (with lateral declivities scarcely shining). Fore femur dark on dorsal surface only, Fore tibia pale. Surstylus slender, distal section of aedeagus narrower..... **longimana** Pok.

EUTRICHOTA (and Parapegomyia)

Females

- 1 Arista plumose, total width of hairing almost or exceeding width of postpedicel 2
- Arista almost bare, at most pubescent with the longest hairs not longer than basal diameter of arista 4
- 2 Arista long plumose, total width of hairing about 1.8 times width of postpedicel. Legs mainly yellow. Abdomen densely greyish dusted with only a trace of a midstripe. Generally a larger, more robust species (body length on average 8.5 mm). Fore tarsi with segments 2-4 expanded. Pregonite not bilobed **praepotens** Wied
- Arista shorter plumose, total width of hairing not more than 1.3 times width of postpedicel. Fore tarsi not expanded. Ovipositor with patches of short anteriorly directed hooked spines 3
- 3 Arista with longer hairs, total width of hairing more than width of postpedicel. Scutum and abdomen with some shining blackish reflections. Larger, more robust species. (*Parapegomyia*) **schineri** Schnabl
- Arista short plumose, total width of hairing equal to width of postpedicel. Scutum and abdomen more grey dusted with less distinct blackish reflections. Smaller, slenderer species. (*Parapegomyia*) **socculata** Zett.
- 4 Legs entirely dark. Fore tarsi not expanded..... 5
- Legs largely yellow. Fore tarsi with tarsomeres III and IV expanded 6
- 5 **pilimana** Ringdahl
- **anderssoni** Hennig
- 6 Thorax rather finely grey dusted, scutum appearing extensively shining (especially on lateral declivities) in certain angles of light. Fore femur (and sometimes tibia) largely brown. Fore tarsi with tarsomeres III and IV distinctly expanded. Hind femur without *pv* setae, Mid tibia without *av*..... **frigida** Zett.
- Thorax more densely grey dusted (with lateral declivities scarcely shining). Fore femur dark on dorsal surface only, fore tibia pale. Hind femur with 3-4 *pv* setae, Mid tibia with a small *av* seta. Fore tarsi with tarsomeres III and IV only slightly expanded **longimana** Pok.

FUCELLIA

Males

- 1 Mid tibia with 1–2 *av* setae. Legs completely black.....**fucorum** Fall.
 – Mid tibia without *av* setae. Tibia at least in basal third yellowish.....2
 2 Hind femur with basal ventral tubercle evenly rounded at free end, and not set off from femur by an incision, it's setae longer and arranged in a row. A single or no hairs present between the two rows of presutural acrostichal setae. Eye larger, gena rather narrow, 0.5–0.65 times the height of an eye**tergina** Zett.
 – Hind femur with basal ventral tubercle not rounded at free end, set off from femur by a distinct incision. Several hairs present between the two rows of presutural acrostichal setae. Eyes smaller, gena wider, 0.6–0.7 times the height of an eye.**maritima** Haliday

FUCELLIA

Females

- 1 Mentum short and wide, in outline nearly semicircular. Gena very wide. No setulae between acrostichal rows. Tibiae black, or only at extreme base lighter. Mid tibia with an *av* seta.....**fucorum** Fall.
 – Mentum not strikingly wide, about 2–3 times as long as wide2
 2 Eyes smaller, parafacial and gena therefore wider, gena 0.6–0.7 times the height of an eye. Some of the *pv* hairs of hind femur longer than width of hind tibia. Several hairs present between the two rows of presutural acrostichal seta.....**maritima** Haliday
 – Eyes larger, parafacial and gena therefore narrower, genae, 0.5–0.65 times the height of an eye. None of the *pv* hairs of hind femur longer than width of hind tibia. No hairs present between the two rows of presutural acrostichal setae.....**tergina** Zetterstedt

HETEROSTYLODES

Male

- 1 Eye margins on frons at narrowest part separated by distinctly more than distance between outer margins of posterior ocelli (1.3–1.5). Mid tibia with 1–2 small *av* setae. Mid femur with 5–6 strong *av* and about 5 *pd* which are as long as or longer than depth of femur. Hind tibia without *p* or *pv* setulose hairs in basal half. Larger species, wing length 5 mm. Processes of sternite V with a group of about 5–6 short blunt setae on inner margins which arise from a small tubercle.....**caledonicus** (d'Assis Fonseca)
 – Eye margins on frons at narrowest part separated by no more than distance between outer margins of posterior ocelli. Mid tibia without *av* setae. Mid femur with shorter or finer *av* and *pv* setae. Hind tibia with a few *p* or *pv* setulose hairs on basal half. Generally smaller species, wing length up to 4.5 mm. Processes of sternite V without a group of median setae2
 2 Parafacials slightly to distinctly wider than width of postpedicel. Abdomen in caudal views with distinct grey dusting and a darker median vitta3
 – Parafacials normally slightly to markedly narrower than width of postpedicel. Abdomen in caudal views entirely brownish black to just with narrow margins obscurely lighter dusted4
 3 Arista short, only slightly longer than antennae, and with pubescence clearly shorter than greatest arista diameter. Scutellum devoid of ventral setae**nominabilis** (Collin)
 – Arista decidedly longer than antennae and with pubescence subequal in length with greatest arista diameter. Scutellum with usual ventral setulae**pilifer** (Zetterstedt)
 4 Interfrontalia at narrowest point normally wider than diameter of anterior ocellus. sternite V with pubescence on median posterior margin**pratensis** (Meigen)
 – Interfrontalia at narrowest point normally narrower than the diameter of anterior ocellus. Median posterior

margin of sternite V without pubescence **obscurus** (Macquart)

HETEROSTYLODES

Females

- 1 Mid tibia with 1–2 *av* setae **caledonicus** (d'Assis Fonseca)
- Mid tibia without *av* setae 2
- 2 Arista short, only slightly longer than antennae, and with pubescence clearly shorter than greatest arista diameter. Scutellum devoid of ventral setulae **nominabilis** (Collin)
- Arista decidedly longer than antennae and with pubescence subequal in length with greatest arista diameter. Scutellum with usual ventral setulae 3
- 3 Parafacialia slightly to distinctly broader than width of postpedicel. Abdomen with blackish subshine rather dulled by grey dusting in certain caudal views **pilifer** (Zetterstedt)
- Parafacialia slightly to markedly narrower than width of postpedicel. Abdomen shiny blackish with very sparse brownish grey dusting to be seen in certain caudal views 4
- 4 Posterior lower katepisternal seta only a little shorter than upper seta. Cerci with free apices practically missing. **obscurus** (Macquart)
- Posterior lower katepisternal seta less than half the length of upper seta. Cerci with shortly produced free apices **pratensis** (Meigen)

HYDROPHORIA

Males

- 1 Mid femur and hind femur completely yellow **linogrisea** Mg.
- Mid femur and hind femur mainly dark 2
- 2 Prealar seta at least as long as posterior notopleural seta. Abdomen without dark foremarginal bands. sternite V with setae on inner margin of processes clustered in apical half or medially 3
- Prealar seta shorter than posterior notopleural seta. Abdomen with dark foremarginal bands. sternite V with setae on inner margin clustered near base 4
- 3 Epandrium in profile longer than high, the sides distinctly shining. Surstylus in caudal view narrower in apical half **diabata** Pand.
- Epandrium shorter, the sides only very slightly shining. Surstylus in caudal view wider in apical half **lancifer** Harris
- 4 Abdomen generally with translucent yellowish areas at base. Tibiae more or less yellow, at least in basal half **ruralis** Mg.
- Abdomen darker in ground colour. Tibiae dark **silvicola** R.D

HYDROPHORIA

Females

- 1 Legs completely black, at most knees slightly yellowish. Prealar seta shorter than posterior notopleural seta **silvicola** R.D.
- Legs partly reddish or yellowish (at least mid tibia and hind tibia) 2
- 2 Mid femur and hind femur completely yellow **linogrisea** Mg.
- Mid femur and hind femur black 3

- 3 Prealar seta shorter than posterior notopleural seta (about 0.8–0.9 times its length). Presutural acrostichal setal rows equally distant from each other and the dorsocentral rows, with 2–4 rows of setulose hairs between the rows. **ruralis** Mg.
- Prealar seta longer and stronger, longer than posterior notopleural seta, (about 1.2–1.3 times its length). Presutural acrostichal rows closer together than to presutural dorsocentral rows, with 1–2 rows of setulose hairs between rows(and *diabata*) **lancifer** Harris

HYLEMYA

Males

- 1 The two rows of acrostichal setae rather widely separated, between them, at least in front of suture, two rows of fine setulae. Hind tibia with a *pv* preapical as well as an *av* preapical seta(S.g. *Hylemyza*) **partita** Mg.
- Acrostichal setal rows close together, between them no fine setulae. Hind tibia without a *pv* apical..... 2
- 2 Legs not completely black, at least tibia (especially mid and hind tibia) clear yellow or orange 3
- Legs completely black or at most Hind tibia obscurely and partly transparent brownish orange when viewed in certain directions..... 4
- 3 All femora black at least in basal two-thirds, only tibiae yellow or orange **vagans** Pz.
- Only fore femora black, mid and hind femora yellow or orange as are tibiae **nigramana** Mg.
- 4 Surstylus long and slender, apices slender and curved backwards. Hind tibia entirely black.....**variata** Fall.
- Surstylus short, widened at apices, curved forwards. Hind tibia often obscurely orange-brown. **urbica** Wulp

HYLEMYA

Females

- 1 The two rows of acrostichals rather widely separated, between them at least in front of suture two rows of fine setulae **partita** Mg.
- Acrostichal rows close together, between them no fine setulae..... 2
- 2 All femora black, at most knees lightened **variata** Schnabl, **urbica** Wulp
- At least mid and hind femora yellow **vagans** Pz. **nigramana** Mg.

LASIOMMA

Males

- 1 Hind tibia with a strongly developed *pv* apical seta, which is as long and strong as the *av* apical seta. Prealar seta much longer than posterior notopleural seta. Mid tibia with 2 *ad* and 2–3 *pd* setae. Mentum long and slender, shining blackish brown. Large light grey dusted species, wing length mm. **latipenne** Zett.
- Hind tibia without *pv* apical seta. Prealar seta shorter than posterior notopleural seta. Mid tibia with 1 *ad* and 2 *pd* setae. Smaller blackish species. Wing length mm..... 2
- 2 Eyes bare, or at most with microscopic pubescence. Hind tibia usually with only 1 *av* seta. Scutum, seen from behind, with 2 distinct whitish dusted presutural vittae contrasting with the dark ground, and with a little pale dusting in front of scutellum. **picipes** Mg.
- Eyes pubescent (long and dense in *anthomyinum*, short and sparse in *seminitidum* and *strigilatum*) 3
- 3 Eyes with longer pubescence, hairs mainly more than half as long as postpedicel is wide. Lower squamae as long as or longer than upper. Hind tibia with a row of about 6 *av* setae of which the longest proximal one is distinctly longer than the rest. **anthomyinum** Rond.
- Eyes shorter pubescent, at most one-third as long as width of postpedicel, the hairs sparser. Hind tibia with at most 3 *av* setae..... 4
- 4 Costa setulose along whole length ventrally. Hind tibia posteriorly with only 1–3 fine setae on basal half. Hind

- femur with long *pv* setae, the longest median setae more than twice depth of femur **seminitidum** Zett.
 – Costa bare ventrally. Hind tibia abundantly setose, 3–4 long *av*, 15 *ad* of varying lengths, 4 *pd*, 5–9 short *pv*, 10–13 longer *p* setae. Hind femur with only short fine *pv* setae except at apex **strigilatum** Zett.

LASIOMMA

Females

- 1 Hind tibia with a strongly developed *pv* apical seta, which is as long and strong as the *av* apical seta. Prealar seta longer than posterior notopleural seta. Mid tibia with 2 *ad*. Mentum long and slender, shining blackish brown. Large light greyish species. Wing length xx mm. **latipenne** Zett.
 – Hind tibia without *pv* apical seta. Prealar seta shorter than posterior notopleural seta. Mid tibia with 1 *ad* seta. Smaller blackish species 2
 2 Mid tibia with only 1 *pd* seta **picipes** Mg.
 – Mid tibia with 2 or more *pd* setae 3
 3 Costa setulose ventrally along whole length. Mid tibia often with 3 *pd* setae **seminitidum** Zett.
 – Costa bare ventrally except sometimes at base. Mid tibia generally with 2 *pd* setae 4
 4 Arista more distinctly pubescent, with hairs quite as long as basal thickness. Hind tibia with about 6 *ad* setae
 **anthomyinum** Rond.
 – Arista almost bare. Hind tibia with about 10 *ad* setae **strigilatum** Zett.

LEUCOPHORA

Males

- 1 Arista plumose, total width of hairing about twice width of postpedicel; the hairs composed of both long and shorter hairs. Prealar seta absent. **grisella** Hennig
 – Arista bare or long pubescent, total maximum width of hairing at most equal to two-thirds width of postpedicel. Prealar seta present. 2
 2 Arista long pubescent, total width of hairing equal to two-thirds width of postpedicel. Mid tibia without an *av* seta. 3
 – Arista practically bare, or if with longer hairs, the total width of hairing equal to diameter of base. Mid tibia with or without an *av* seta 4
 3 Hind femur without *pv* setae, only *av* present. Hind tibia with about 3 *pv* setae. Cruciate interfrontal setulae present. **cinerea** R. D.
 – Hind femur with some *pv* setae, at middle or on apical half. Hind tibia with 6–8 *pv* setae. Cruciate interfrontal setulae absent **sociata** Mg.
 4 Mid tibia with a strong ventral seta (in *personata* sometimes missing, in which case notopleural depression with several hairs in addition to the two strong setae; keyed out in both sections) 5
 – Mid tibia without a ventral seta 7
 5 A more hairy species. Abdominal sternites with long erect hairs. Hind femur with numerous long fine hairs beneath. Lower margin of gena with several rows of upwardly directed setae. Lateral margins of scutellum with several rows of setulae. **obtusa** Zett.
 – Less hairy species. Abdominal sternites with shorter hairs. Hind femur more setulose than hairy, with *av* and *pv* rows of stouter setae 6
 6 Notopleural depression with several hairs in addition to the two long setae. Scutum seldom with any indication of a median dark vitta. Hind tibia with only 2–3 short inconspicuous setulose hairs posteriorly. Large crossvein more sinuous. Prealar seta as long and somewhat stronger than posterior notopleural seta. **personata** Coll.
 – Notopleural depression bare except for the two long setae. Scutum with a brown median vitta. Hind tibia with

- 7–8 longer fine setulose hairs posteriorly. Large crossvein straighter. Prealar seta generally shorter and weaker than posterior notopleural seta..... **unistriata** Zett.
- 7 Notopleural depression with several hairs in addition to the two long setae **personata** Coll.
- Notopleural depression bare except for the two long setae 8
- 8 Prosternum with a pair of strong setae, one on each lateral margin. Weakly setose species. Head setae short. Genal setae uniserial and very short. Hind tibia with only 2–3 short setulose hairs posteriorly. Cruciate interfrontal setae generally absent..... **sericea** R. D.
- Prosternum bare. Strongly setose species. Genal setae at least biserial and longer. Hind tibia with 6-8 setulose hairs posteriorly in proximal half. Cruciate interfrontal setae generally present.
- **sponsa** Mg.

LEUCOPHORA

Females

- 1 Arista plumose, total width of hairing about twice width of postpedicel; the hairs composed of both long and shorter hairs. Prealar seta absent. Orbital setae strong, 2 proclinate and 1 reclinate setae..... **grisella** Hennig
- Arista bare or long pubescent, total maximum width of hairing at most equal to two-thirds width of postpedicel. Prealar seta present, even though sometimes small..... 2
- 2 Arista long pubescent, total width of hairing equal to two-thirds width of postpedicel. Mid tibia without an *av* seta. 3
- Arista practically bare, or if with longer hairs, the total width of hairing hardly as long as diameter of base. Mid tibia with or without an *av* seta 4
- 3 Frons narrower (width of frons to width of head = 25:100). Hind femur without *pv* setae. Only 1 proclinate orbital seta present. Cruciate interfrontal, orbitals and frontal setae short and fine **cinerea** R. D.
- Frons wider (width of frons to width of head = 30:100). Hind femur medially with some relatively long and strong *pv* setae. Immediately above the proclinate orbital seta there is another outwardly directed seta present. Cruciate interfrontal, orbitals and frontal setae relatively long and strong. **sociata** Mg.
- 4 Mid tibia with a ventral seta (in *personata* sometimes missing, in which case notopleural depression with several hairs in addition to the two strong setae) 5
- Mid tibia without a ventral seta 7
- 5 Fore tibia with two *p* setae. Lateral margins of scutellum with several rows of setulae. Eyes approximated, distance between eye margins equal to distance between posterior ocelli. Hind tibia without *p* or *pv* setulae **obtusa** Zett.
- Fore tibia with only one *p* seta. 1st abdominal sternite bare. 6
- 6 Notopleural depression with some (8-15) hairs in addition to the two strong setae. Prealar seta strong and slightly longer than posterior notopleural seta. The middle four setae on hind margin of last visible abdominal segment much further from the margin than the others..... **personata** Coll.
- Notopleuron bare apart from the two strong setae. Prealar seta very short and fine. Setae on hind margin of last abdominal segment all equally near margin..... **unistriata** Zett.
- 7 Notopleural depression with a few hairs in addition to the two strong setae **personata** Coll.
- Notopleural depression bare apart from the two strong setae 8
- 8 Prosternum with a pair of strong setae, one on each lateral margin. Hind margin of abdominal segment VI with long, strong curved setae which are bent down over the end of abdomen when ovipositor is withdrawn. Cruciate interfrontal setulae absent. **sericea** R. D.
- Prosternum bare. abdominal segment VI with no remarkable curved setae. Frons wider, about one-quarter the width of head. Cruciate interfrontal setulae present..... **sponsa** Mg.

PARADELIA

Males

- 1 Hind tibia with only 2 *ad* and 1 *pd* setae. Mid tibia without an *ad* seta. Pregenital sclerite dulled by dust. Legs very slender and mainly reddish or brownish yellow. Head small in relation to thorax, which is humped when seen in lateral view. Abdomen long and slender. sternite V without appendages but with outer lateral setae **lunatifrons** Zett.
- Hind tibia with 3 *ad* and 2 *pd* setae. Mid tibia with a distinct but often small *ad* seta. Pregenital sclerite shining black. sternite V processes with appendages but without lateral setae..... 2
- 2 Prosternum shining black, and upper anterior quarter of katepisternum also with a shining black patch. Processes of sternite V ending in wedge-shaped flattened blunt lamellae **brunneonigra** Schnabl
- Katepisternum almost entirely grey dusted..... 3
- 3 Processes of sternite V ending in pointed leaf-like lamellae. Costa bare on ventral surface. Abdomen with a wide median vitta. Wing base and squama pale brownish grey **intersecta** Mg.
- Processes of sternite V blunt distally with a finger-like process on inner lobes. Costa setulose on ventral surface. Abdomen with a very narrow dark median vitta. Wing base and squama bright orange yellow..... **palliceps** Zett.

PARADELIA

Females

- 1 Mid tibia without an *ad* seta. Head small in relation to thorax, which is humped (height of head less than half height of thorax (0.41) measured from ventral margin of katepisternum to highest point of scutum). Legs very slender and mainly orange brown **lunatifrons** Zett.
- Mid tibia with an *ad* seta. Head larger (height of head more than half height of thorax (0.55) measured as above) 2
- 2 Costa setulose on ventral surface. (?wing base and squama yellowish orange)..... **palliceps** Zett.
- Costa bare on ventral surface..... 3
- 3 Distinctly bluish grey dusted species. Gena below eye hardly more than one-quarter eye height. Abdominal median vitta very indistinct. (?Katepisternum entirely grey dusted) **intersecta** Mg
- More yellowish grey dusted species. Gena about one-third eye height. Abdomen with a distinct median vitta consisting of a triangular marking on each tergite. (?Katepisternum with upper anterior part shining black) **brunneonigra** Schnabl

PAREGLE

Males

- 1 Notopleural depression with some hairs in addition to the two strong setae. Scutum lighter. Squamae whitish yellow with pale fringe. Mid tibia with 1 distinct median *av* seta. Cercal plate longer, tapering to a point which is not incised and bears only 2 long setae and some very short hairs..... **audacula** Harris
- Notopleural depression generally bare apart from the two strong setae, though occasionally an isolated hair may be present. Scutum darker, with pale dusted lateral vittae visible only in front of suture. Mid tibia without a median *av* seta, or occasionally a short *av* seta may be present on one or both legs. Cercal plate shorter, with a blunt incised apex, which bears 2 long setae and several long setulose hairs which are one-third the length of the long setae. **atrisquama** Ringd.

PEGOMYA

Males

- 1 All legs entirely dark brown or black in ground colour. (Some or all of the following may be black: palpus, antennae, abdomen). Hind tibia with 2 *ad* setae. 2
- Legs entirely or in part yellow or orange in ground colour. (The legs may appear dark in a few species, but they are dark translucent reddish, somewhat infuscated; even if most of the legs are black, but parts of the tibiae and knees are translucent orange-brown, follow this section). 6
- 2 Genal setae biserial [**not rubivora!**] (at least partially). Hind tibia with 2 *pd* setae..... 3
- Genal setae uniserial. Prealar setae distinctly shorter than posterior notopleural seta. 5
- 3 Postpedicel short, 1.5 times as long as wide. Prealar seta nearly as long as posterior notopleural seta but finer. Notopleural depression with 1–2 fine setulose hairs in addition to the two long setae. Inner posterior posthumeral seta duplicated, both setae equally long and strong, and placed very close together. (Only one specimen available, so this character may be aberrant). (Posthumeral setae present)..... **argyrocephala** Mg.
- Postpedicel longer, more than 1.75 times as long as wide. Prealar seta as long as or longer than posterior notopleural seta but equally robust. Notopleural depression bare apart from the two long setae. Inner posterior posthumeral seta represented by a single seta (3 posthumeral setae present) 4
- 4 Tergite VI setulose on posterior margin. Hind tibia with 1 *av* and 3 *ad* setae. Eye margins on frons separated by width of ocellar tubercle, the parafrontals wide and touching so the black interfrontalia is linear at this point. Abdomen viewed from behind bluish-grey dusted. sternite V black and shining, processes with a uniserial row of long strong setae on inner margins which project downwards in lateral view. Cercal plate black or dark brown. Wing length 5.3–5.5 mm. **rubivora** Coq.
- Tergite VI bare. Hind tibia with 2 *av* and 2 *ad* setae. Eye margins on frons practically touching, only separated by width of anterior ocellus, the parafrontals very narrow at this point. Abdomen viewed from behind lighter brownish grey dusted. sternite V black, processes with a dense tuft of setae on inner margins which are separated from some isolated apical setae. Cercal plate and epandrium contrastingly orange. Wing length about 5.0–5.3 mm. **haemorrhoum** Zett.
- 5 Hind tibia with 3 *ad* setae. Haltere blackish or brownish. Fore tibia without a median seta. Mid tibia without an *ad* seta. Wing rather pale brownish basally. sternite V black, base shining, processes tapering to a point, as long as base, with a multiserial fringe of short fine setulose hairs on inner margins. Wing length 3.3–3.5 mm. **meridiana** Vill.
- Hind tibia with 2 *ad* setae. Haltere yellow. Fore tibia with a distinct median *pv* seta. Mid tibia with a small *ad* seta. Wing darker brown basally. sternite V black, slightly shining, processes expanded and mainly bare on apical half, bearing a tuft of hairs on inner pointed expansion, and a fringe of setae inside at base, with a bare thumb-like apex. Wing length 3.6–4.00 mm. **provecta** Vill.
- 6 Genal setae biserial (at least partially). Antennae entirely dark brown in ground colour 7
- Genal seta uniserial..... 12
- 7 Palpus entirely yellow. Scape and pedicel clear orange. Hind tibia generally with 3 *ad* and 3 *pd* setae. Presutural acrostichal rows closer together, distance separating them about half that between presutural acrostichals and dorsocentral rows, without setulae between the rows. Abdomen entirely orange, with a very faint darker brownish orange median vitta. Scutellum dark in ground colour. Prealar seta equal in length to posterior notopleural seta. Sternite V entirely orange, with tapering processes bearing multiserial curling setae on inner margins. Wing length 5.4–5.6 mm. **steini** Hend.
- Palpus not entirely yellow, either all dark or paler basally with black apex. Scape and pedicel dark. Abdomen dark in ground colour, or if orange then hind tibia with only 2 *ad* and 2 *pd* setae. 8
- 8 Hind tibia with 2 *av* seta, or if with only 1 *av* then abdomen brownish orange in ground colour 9
- Hind tibia with 1 *av* seta and abdomen dark in ground colour. Fore femur largely infuscated especially on posterior surface, Mid femur and Hind femur yellow 11
- 9 Hind tibia with 3–4 *ad* setae. Palpus entirely dark brown or black. Thorax, viewed from in front, deep black without vittae, slightly shining. Eye margins on frons touching, or at most parafrontals touching and eye

- margins only separated by less than width of anterior ocellus. Abdomen dark in ground colour with dense light grey dusting and a wide suffused black median vitta (as wide as depth of hind femur). sternite V with blackish base, brownish orange processes which are apically narrow and pointed, with the bare apical third shining orange. Wing length 5.6–5.8 mm..... **depressiventris** Zett.
- Hind tibia with 2 *ad* setae. Scutum, viewed from in front, light or dark grey dusted. Palpus orange basally, with brown or black apex..... 10
- 10 Scutum, viewed from in front, densely light grey dusted, with traces of darker vittae along dorsocentral rows. Eye margins separated by twice width of anterior ocellus. Legs mainly orange, Fore femur infuscated basally. sternite V grey, with short processes which are separated by a bare area, and a dense tuft of setae at base of each process; apex of each process shining blackish, with some setae which are separated from basal tuft. Cercal plate and epandrium orange Wing length 4.4–4.7 mm. **versicolor** Mg.
- Scutum, viewed from in front, dark grey dusted without vittae. Eye margins either touching or separated by width of anterior ocellus. Legs mainly dark, Mid femur and hind femur on basal three-quarters yellowish orange, apically contrasting with black apices, Hind tibia obscurely orange (fore legs entirely black). sternite V black, otherwise as in *versicolor*; cercal plate and epandrium orange. Wing length 4.7–5.0 mm
..... **haemorrhoum** Zett.
- 11 Palpus entirely dark brown or black. Eye margins on frons separated by slightly more than width of ocellar tubercle. Prealar seta longer than posterior notopleural seta. Hind tibia with 3 equally long and strong dorsal preapical setae (*ad*, *d*, *pd*). 2 posthumeral setae. Proepisternal setae long and robust. Abdomen subcylindrical, dark in ground colour with dense grey dust and with a suffused darker median vitta (about as wide as Hind tibia). Processes of sternite V widely separated with a shining bare blackish knob-like distal third. Wing length 5.4–5.7 mm. **rugulosa** Zett.
- Palpus yellow or orange basally. Eye margins on frons separated by slightly more than width of anterior ocellus, the parafrontals touching at this point. Hind tibia with 3 short unequal dorsal preapical setae, the *pd* seta distinctly shorter than the dorsal seta. 3 posthumeral setae. Prealar seta as long as posterior notopleural seta. Proepisternal setae shorter and not so robust. Abdomen dorsoventrally compressed and with a very narrow median vitta. sternite V with blackish brown base, brownish orange processes with darker margins, which are flat and rather wide, and bearing only short fine curling setulae on inner margins basally, bare and shining orange. Wing length 5.4–5.6 mm. **laticornis** Fallén
- 12 Lower squama projecting beyond upper squama by at least width of postpedicel. Eye margins on frons touching, or at most parafrontals touching and eye margins only separated by the width of anterior ocellus. Hind tibia with 2 *pd* setae 13
- Lower squama not projecting beyond upper squama, or only by a small amount 17
- 13 Prealar seta longer than posterior notopleural seta 14
- Prealar seta not longer than posterior notopleural seta, equal in length or shorter 15
- 14 Entirely orange in ground colour with sparse dusting. Scutum with a long presutural intra-alar seta which is as long as posterior notopleural seta. 3 equally long postsutural intra-alar setae. 3 strong posthumeral setae. Abdomen wide and conspicuously shorter than thorax, hence 3rd tergite is 4–5 times wider than long. All acrostichals long and strong, presutural acrostichals widely separated with multi-serial rows of fine hairs between them. All thoracal hairs dark. Hind tibia with 3 *ad* setae. sternite V entirely orange, processes expanded and downturned in lateral view, with a long seta on posterior margin, bare apically, with long lateral setae. Wing length 7.4–7.6 mm. **testacea** Degeer
- Thorax mainly dark in ground colour. Presutural intra-alar seta short and fine, half length of 2nd presutural dorsocentral seta and much finer. Anterior seta of the 3 posterior intra-alar setae much shorter than the other two. Abdomen longer than thorax. Presutural acrostichal setae shorter and finer, rows widely separated, twice as far from each other as they are from the dorsocentral rows, with multiserial rows of fine pale hairs between them. Golden hairs present on lower half of frons, pleura, fore coxa and beneath and on sides of 1st abdominal tergite. Hind tibia with 4 *ad* setae. Abdomen largely orange with greyish dust on tergites and with a narrow median vitta. sternite V orange with brownish base, processes with a fringe of long setae on inner margins reaching almost to apices. Wing length 6.5–6.8 mm. **transversa** Fallén
- 15 Palpus and antennae dark brown or black. Presutural acrostichal rows widely separated by a distance which is 1.5 times distance between acrostichal and dorsocentral rows, with multiserial rows of hairs between them. Hind tibia with 3 *ad* and 2 *pd* setae. Abdomen dorsoventrally compressed, mainly orange. sternite V mainly

- orange, small with short, rather narrow processes. sternite V orange, processes short, becoming narrow and pointed, with inner marginal setae reaching apices. Wing length 5.1–5.4 mm. **rufina** Fallén
- Palpus entirely orange. Antennae partly yellow or orange 16
- 16 Scape, pedicel and basal part of postpedicel orange. Hind tibia with 2 *ad* setae. Disc of scutellum practically bare except for 3–4 at sides. Presutural acrostichal rows equally spaced from each other and from dorsocentral rows, rarely with any short setulae between them. Hind femur with only 2 *pv* setae (1 fine median seta and 1 seta near base). Lower squama whitish. Mentum less shining, with thin dust. Processes of sternite V reddish, short and triangular. sternite V orange with brownish base, processes very short. Wing length 5.4–5.6 mm. **ulmaria** Rond.
- Postpedicel dark brown or black. Hind tibia with 3 *ad* setae. Disc of scutellum mainly covered with scattered short setulae. Presutural acrostichal setae more widely separated from each other than from dorsocentral rows, and with numerous scattered short setulae between rows. Lower squama light brownish. Mentum undusted, shining. sternite V brownish orange, processes very short, with short setulae on inner margins. Wing length 5.4–5.6 mm. **winthemi** Mg.
- 17 Palpi entirely dark brownish black, without trace of translucent orange or brownish red on any part 18
- Palpi entirely yellow or partly yellowish or orange basally (even if only extreme base is orange, follow this section) 24
- 18 Presutural acrostichal rows widely spaced apart, nearer to dorsocentral rows than to each other, with several hairs between rows (if presutural acrostichal rows are separated by a distance equal to that between acrostichal and dorsocentral rows, then eye margins on frons are separated by no more than half width of anterior ocellus). Scutum, viewed from in front, appearing mainly matt dark brown. Parafacial in lateral view almost linear. Wing with a short but developed spinule before distal break which is slightly longer than preceding spinules but thicker 19
- Presutural acrostichal rows separated by less than the distance between acrostichal and dorsoventral rows. Scutum, viewed from in front, grey dusted, with or without vittae, or if appearing matt brown, then mid femur and hind femur dark 20
- 19 Postpedicel shorter, 1.8 times as long as wide. Presutural acrostichal rows separated by about 1.3 times distance between acrostichal and dorsocentral rows. Hind femur mainly yellow with apex infuscated brownish. Processes of sternite V narrow, bare and inwardly directed, inner margins basally with long multiserial setae, base with long lateral setae. Wing length 5.4–5.6 mm. **maculata** Stein
- Postpedicel longer, 2.2 times as long as wide. Presutural acrostichal rows separated by a distance equal to that between acrostichal and dorsocentral rows. Hind femur generally more infuscated brownish, apex not contrasting with the rest of femur. sternite V black, processes and lateral margins of base shining, the latter with expanded apices, with long curling erect setae basally, and multiserial very short setulose hairs on inner margins. Wing length 5.4–5.6 mm. **sociella** Stein
- 20 Hind tibia with 1 *av* seta 21
- Hind tibia with 2–3 *av* setae 22
- 21 Thorax and abdomen light grey dusted, the former light grey when viewed from in front. Parafacial and gena light silvery grey dusted viewed from in front. Legs mainly yellowish, only Fore femur infuscated brownish. Squama whitish. sternite V brownish black. Wing length 4.9–5.1 mm. **interruptella** Zett.
- Thorax and abdomen blackish brown with light brownish dust, the former when viewed from in front deep brownish black. Interfrontalia and parafrontals, viewed from above and in front, deep velvety matt cream, the parafacials and genae becoming black. All femora infuscated brownish, tibiae less so. Squama and wing brownish tinged, the former with a brownish fringe. sternite V blackish, processes with bare apical third, which is narrow, pointed and out-turned. Wing length 5.2–5.4 mm. **nigrisquama** Stein
- 22 Hind tibia with 4 *pd* setae which are very robust. Mid tibia with 3 *p* or *pv* setae. Fore femur entirely yellow. Scutal setae rather longer than usual, supra-alar seta more than 3 times as long as prealar seta. Eye margins on frons separated by twice width of anterior ocellus, the parafrontalia touching at this point and interfrontalia linear. Scape and pedicel orange. Abdomen rather long, 2.3–2.4 times as long as wide. Hypopygium partly orange, sternite V orange, base brownish, rather flat, with an obtuse V-shape between the processes which have rounded bare apices and a fringe of fine setulae on inner margins. Wing length 6.5–7.0 mm. **setaria** Mg.
- Hind tibia with up to 3 *pd* setae, none of which are robust. Mid tibia with only 2 *p* or *pv* setae. Fore femur

- infuscated brownish.. Eye margins on frons either touching or separated by 3 times width of anterior ocellus (with interfrontalia distinct throughout). Abdomen shorter, 1.6–1.8 times as long as wide..... 23
- 23 Parafrontals very narrow, touching on frons. Hind femur with numerous fine multiserial curled hairs among the longer *pv* setae on basal half. Mid tibia with a small *ad* seta. sternite V dark brown, processes wide basally, with a row of uniserial long setae medially, apices bare and twisted and out-turned, base very short. Wing length 4.4–4.6 mm. **holosteae** Hering
- Parafrontals separated by a distinct interfrontalia, eyes separated by two-thirds the width of postpedicel. Mid tibia without an *ad* seta. Hind femur without long curled ventral hairs. Sternite V orange with darker base, processes very short, apically bare with short setae on inner margins, in lateral view pointed. Wing length 5.1–5.3 mm. **dulcamarae** Wood
- 24 Scutellum partly or wholly translucent orange-yellow or reddish (may be restricted to extreme apex and ventral surface) 25
- Scutellum entirely dark in ground colour including apex and ventral surface 33
- 25 Hind tibia with 5 *ad* and 3 *pd* setae. Presutural acrostichal rows equally separated from each other as from the dorsocentral rows, with numerous short setulae between them. Outer posthumeral seta as strong as and nearly as long as inner posterior posthumeral. Prealar seta distinctly shorter than posterior notopleural seta. Scutellum more or less translucent yellowish at apex and beneath. Legs (except tarsi) and abdomen yellow-orange, the latter with a weak darker orange median vitta. sternite V orange brown, with dense incurving setae on processes. Wing length 5.4–5.7 mm. **calyptrata** Zett.
- Hind tibia with at most 3 *ad* setae. Outer posthumeral seta either shorter (slightly to considerably) and finer than inner posterior posthumeral seta or absent..... 26
- 26 Lower occiput with some golden yellow hairs. Hind tibia generally with 2 *av* setae. Mid tibia with 2 *ad* and 2 *pd* setae. Scape and pedicel, most of head, thorax including pleura, scutellum, legs and abdomen translucent orange. Prealar seta slightly shorter than posterior notopleural seta. sternite V orange, ventrally projecting, processes in lateral view with small downturned apices. Wing length 5.8–5.9 mm (pale specimens) **tabida** Mg.
- Lower occiput with only dark hairs. Hind tibia with 1 *av* seta. 27
- 27 Palpus orange basally, dark apically..... 28
- Palpus entirely yellow or orange 29
- 28 Scutum, viewed from in front, deep brownish black, with only light greyish brown dust visible behind head and along suture. Scutellum, viewed from above translucent orange to amber brownish; scutum and scutellum, viewed from behind, light brownish grey dusted. Presutural acrostichal setal rows equally separated from each other and from dorsocentral rows, with a few hairs between the rows. Hind femur with 2 long *pv* setae, one at base, the other just before middle. Legs, including coxae (but not tarsi) clear yellow. sternite V brownish black, base reddish brown, not projecting downwards with short wide processes, which are separated basally. Wing length 5.7–6 mm. **fulgens** Mg.
- Scutum, viewed from in front, greyish dusted, especially presuturally. Scutellum, viewed from above, grey dusted basally with yellowish tip. Presutural acrostichal setae slightly closer together, without hairs between rows. Hind femur with 3 or more *pv* setae. sternite V dark brown, strongly projecting downwards, with the narrow apical part of the processes projecting downwards and at almost right angles to the plane of the abdomen. Wing length 5.4–5.6 mm..... **zonata** Zett.
- 29 Sternite V processes not projecting downwards away from the abdomen, sternite therefore flatter in lateral view30
- Sternite V processes projecting downwards, away from the abdomen 31
- 30 Hind tibia with 3 *ad* setae. postpedicel shorter, 2.15 times as long as wide. Anteroventral row of spinules on costa about as wide as width of costa and robust, contrasting with the finer decumbent anterior cilia. Humerus translucent orange in ground colour. Sternite V processes orange and rather long, with apices turned inwards. Wing length 5.1–5.3 mm. **pallidoscuteolata** Zett.
- Hind tibia with 2 *ad* setae. Hind tibia with 2 strong *pd* setae of equal length. postpedicel longer, 3.3–3.5 times as long as wide. Any *av* spinules on costa much less noticeable and not contrasting with the anterior cilia. Sternite V processes brown, shorter than base and rather wide. Wing length 5.8–6.0 mm. **geniculata** Bouché

- 31 Sternite V projecting ventrally, in lateral view with the rather long narrow apical part of the processes directed posteriorly, more or less in line with the abdomen. Tarsi yellow in ground colour. Femora generally all pale without apical darkening. Colour of whole fly variable, ranging from specimens which are largely pale to specimens with varying degrees of darkening on thorax, legs and abdomen. Wing length 5.1–5.4 mm.
..... **incisiva** Stein
- Sternite V projecting ventrally, in lateral view with the narrow apical part of the processes projecting downwards and at almost right angles to the plane of the abdomen 32
- 32 Scutum, scutellum, legs and abdomen shining, with darker median and lateral vitta which are dulled by paler dust when viewed from different angles. Palpus always completely yellow. Outer posthumeral seta absent or only represented by a short fine hair. Prealar seta as long as posterior notopleural seta. Legs (except tarsi) nearly always orange with the tips of femora darkened dorsally. sternite V dark brown, projecting ventrally, with rather small apices. Wing length 5.5–5.7 mm. **vittigera** Zett.
- Scutum, scutellum, legs and abdomen much less shining, scutum generally dark on disc, with shifting areas of lighter dusting. Palpus generally with darker tips. Fore femur generally darker suffused. Outer posthumeral seta developed, up to one-third length of inner posterior posthumeral seta. Prealar seta shorter and finer than posterior notopleural seta. Femora with any darkening more suffused on apical half. sternite V strongly projecting downwards, blackish, with the narrow apical part of the processes projecting downwards and at almost right angles to the plane of the abdomen. Wing length 5.4–5.6 mm. **zonata** Zett.
- 33 Prealar seta shorter than posterior notopleural seta, not more than three-quarters as long, often much shorter 34
- Prealar seta as long as or longer than posterior notopleural seta 47
- 34 Hind tibia with 2 *av* setae 35
- Hind tibia with only 1 *av* seta 36
- 35 Hind tibia with 3 *ad*. Hind femur with a row of short fine *pv* hairs which are shorter than depth of femur except for 3–4 slightly longer apical setae. Fore tibia with 1 *pv* seta. Gena wider, 0.2 times height of eye. Scutum viewed from behind almost entirely light grey dusted. Scutellum bare on central part of disc. Setulae on anterior surface of hind tibia somewhat longer than usual. Legs often strongly infuscated, but varying from yellow to dark brown. sternite V brownish and rather flat and not projecting ventrally, with the lateral lobes of processes very wide. Wing length 5.3–5.6 mm. **circumpolaris** Ack. & Griff..
- Hind tibia with 4–5 *ad*. Hind femur with a row of longer *pv* setae, some nearly twice depth of femur. Fore tibia with 2 *pv* setae. Gena narrower, 0.1 times eye height. Scutum viewed from behind with 4 dark postsutural vittae, which end just past the 2nd postsutural dorsocentral seta. Sternite V brownish, processes light brown and slightly shorter than the long base, with multiserial rows of setae on inner margins, apical third bare, in lateral view without downturned apices. Wing length 5.4–5.7 mm. **conformis** Fall.
- 36 Eye margins on frons touching. 37
- Eye margins separated by width of ocellar tubercle. 43
- 37 Processes of sternite V strongly projecting ventrally; postabdomen developed 38
- Processes of sternite V not projecting ventrally, postabdomen not strongly developed 41
- 38 Hind femur with a row of 8–12 short but strong *pv* spinules which are shorter than depth of femur, and are all the same length. Width of gena below eye one-fifth of eye height. sternite V brownish black, projecting ventrally, in lateral view with long narrow downturned apices. Wing length 5.4–5.7 mm.
..... **notabilis** Zett.
- Hind femur with only normal setae. 39
- 39 Lower part of occiput with only black hairs. Gena very narrow, 0.1–0.15 times eye height. Colour variable, often very dark. sternite V black, processes with inner margins bearing a uniserial row of short setae, often laterally compressed and reflexed with the pointed apices of the processes directed towards the hind coxae. Wing length 4.2–4.7 mm. **furva** Ringd.
- Lower part of occiput medially with some yellow hairs 40
- 40 Hind femur with 6–7 long *av* setae and 1–2 *pv* setae which are at least 3 times as long as femur is deep. Mid femur and hind femur with darkened apices. Scutum, viewed from above, chocolate-brown with light grey dust on humeri and disc. Palpus, scape and pedicel yellow. Sternite V black, ventrally projecting, the processes in

- lateral view with downturned apices and long setae on inner margins. Wing length 5.6–5.8 mm. **pulchripes** Lw.
- Hind femur with 5–6 *av* setae, which are not more than twice depth of femur, and 1–2 *pv* setae which are even shorter. Mid femur and hind femur not darkened at apices. Thorax, viewed from above, greyish with darker lateral vittae. Sternite V orange, ventrally projecting, in lateral view with small downturned apices. Wing length 5.8–6.0 mm. (dark specimens) **tabida** Mg.
- 41 Scutum, viewed from behind, with 4 short darker postsutural vittae running from suture to just passed 2nd postsutural dorsocentral setae. sternite V reddish brown, processes bare on apical half, in lateral view with the tip downcurved. Wing length 4.6–4.8 mm. **flavifrons** Walk.
- Scutellum, viewed from behind, without distinct vittae, entirely grey dusted 42
- 42 Legs (excluding tarsi) varying from nearly all dark brownish (tibiae partially translucent orange) to largely pale (Fore femur nearly always dark). Abdomen longer and narrower, 2.3–2.4 times as long as wide at tergite III. Dusting of thorax dark grey on black ground colour. Abdomen varying from yellowish to almost completely dark in ground colour. Antennae all dark. sternite V black, processes shorter than the long base, with a row of fine setulae on inner margins. Wing length 4.6–4.8 mm. **transgressa** Zett.
- Legs (including tarsi and coxae) yellow without any darkening. Abdomen rather short, about 1.5–1.6 times as long as wide at 3rd tergite. Head and thorax wide, the former viewed from above twice as wide as long. Dusting of thorax and abdomen light grey dusted. Scape and pedicel yellow. sternite V brown, processes wider basally and pointed, with multiserial rows of setae on whole length. Wing length 5.4–5.7 mm. . **deprimata** Zett.
- 43 Hind tibia with 3 equally long and strong dorsal preapicals. Hind tibia with 4 *ad* and 3 *pd* setae. Abdomen almost cylindrical, entirely orange and semi-shining, only weakly dulled by sparse whitish dust. Parafrontalia separated by a narrow interfrontalia which is about as wide as diameter of anterior ocellus. sternite V orange brown, processes shorter than base, widely separated, with multiserial rows of short fine setae in inner margins, apices bare. Wing length 5.7–6.0 mm. **bicolor** Wied.
- Hind tibia with only 2 long dorsal preapical setae 44
- 44 Abdomen cylindrical, postabdomen prominent. Eye margins on frons separated by about width of ocellar tubercle. Surstylus cleft into 2 long arms. Scape and pedicel generally dark. 45
- Abdomen dorsoventrally compressed, postabdomen not prominent. Eye margins on frons touching or separated by narrow parafrontals, or about twice width of anterior ocellus. Scape and pedicel generally orange. 45
- 45 Processes of sternite V in addition to the vestiture of fine hairs, with a patch of dense black setae at their bases. Cercal plate with incised apex. Surstylus with slender arm apically hook-like in lateral view. Wing length 5.4–5.7 mm. **cunicularia** Rond.
- Processes of sternite V without this dense patch of black setae at their bases, with only a fringe of fine hairs on inner margins. Cercal plate with a rounded apex. Surstylus with stronger arm apically simple in lateral view. Wing length 5.4–5.7 mm. **betae** Curt.
- 46 Processes of sternite V with wider apex when viewed in its widest aspect. Distiphallus longer, with more prominent ventral apical third. Wing length 5.0–5.3 mm. **hyoscyami** Pz.
- Processes of sternite V with slender apex when viewed in its widest aspect. Distiphallus shorter with less prominent ventral apical third. Wing length 5.0–5.3 mm. **exilis** Mg.
- 47 Prealar seta distinctly longer than posterior notopleural seta 48
- Prealar seta at most as long as posterior notopleural seta 49
- 48 Parafrontals touching on frons, but they are quite wide so that eye margins are separated at this point by nearly 3 times width of anterior ocellus. Parafacial and gena wide and orange. Scape and pedicel clear orange, contrasting with the black postpedicel. Scutum densely light grey dusted. Legs (except tarsi) orange, Fore femur darkened only dorsally. Apical abdominal tergite, hypopygium and processes of sternite V orange, the latter very wide in lateral view, with a dense fringe of long black setae. Wing length 4.8–5.1 mm. . **solemnis** Mg.
- Parafrontals touching on frons, but they are narrow, so that eye margins are separated by no more than width of anterior ocellus. Parafacial and gena narrow and dark. Scape and pedicel strongly brownish infuscated on orange ground colour, not contrasting with postpedicel. Scutum densely dark grey dusted. Legs orange with Fore tibia and Mid tibia much darker than Fore femur and Mid femur (almost blackish) the femora orange but darker apically. Abdomen grey dusted. Processes of sternite V similar to *solemnis* but dark. Wing length 5.0–

- 5.3 mm. **seitenstettensis** Strobl
- 49 Hind tibia with 3–4 *ad.* Palpi partly dark. Presutural acrostichal rows separated by a distance equal to that between acrostichal and dorsocentral rows, with a few setulose hairs between the rows. Scape and pedicel largely darkened on orange ground colour. The postsutural pair of acrostichal setae immediately before the scutellum long, their apices reaching tip of scutellum. Abdomen partly orange in ground colour, with grey dust and a wide median vitta when viewed from behind. sternite V dull brownish orange, processes with apices bare. Wing length 5.0–5.3mm. **caesia** Stein
- Parafrontals separated by a distinct interfrontalia, eyes separated by two-thirds the width of postpedicel. Mid tibia without an *ad* seta. Hind femur without long curled ventral hairs. sternite V orange, base darker, processes very short, apically bare with short setae on inner margins, in lateral view pointed. Wing length 5.1–5.3 mm. **dulcamarae** Wood

PEGOMYA

Females

- 1 Prealar seta distinctly longer than posterior notopleural seta. 2
- Prealar seta only as long as or shorter than posterior notopleural seta 7
- 2 Hind tibia with 2 or more *av* setae 3
- Hind tibia with only one *av* seta 6
- 3 Antenna with scape and pedicel dark brown or black, or if reddish in ground colour, then infuscated brownish. Abdomen entirely or mainly dark in ground colour 4
- Antenna with scape and pedicel clear yellow or orange-yellow, contrasting with the dark postpedicel 5
- 4 Apical segments of abdomen suffused orange. Interfrontalia entirely orange. 4 pairs of frontal setae **haemorrhoum** (Zett.)
- Abdomen entirely dark, interfrontalia darkened posteriorly. Generally only 2 pairs of frontal setae. Hind tibia with only 2 *ad* setae. Palpus entirely dark. Tips of femora and all tibiae (especially Fore tibia) darkened brownish, contrasting with paler orange femora. Acrostichal setae long, rows close together, no hairs between rows. Thorax and abdomen dark in ground colour, wings suffused brownish **seitenstettensis** (Strobl)
- 5 Generally 2 pairs of frontal setae. Upper part of parafacials not significantly darker when viewed from in front. Vertical setae placed further apart (equal to distance between posterior ocelli) **steini** Hendel
- Generally 4 pairs of frontal setae. Upper part of parafrontals darkened with greyish dust. Vertical setae placed close together (equal to half distance between posterior ocelli) **versicolor** (Meigen)
- 6 Cruciate interfrontal setulae present. Palpus entirely yellow or yellowish orange. Presutural acrostichal rows widely separated (by more than distance between acrostichal and dorsocentral rows, with numerous hairs between rows). Lower squama distinctly projecting beyond upper. Almost completely orange species, including tarsi; scutum somewhat shining. 3 posthumeral setae, 3 intra-alar setae. Large species **testacea** (De Geer)
- Cruciate interfrontal setulae absent (some small irregular hairs may be present on interfrontalia). Palpus brown, obscurely paler at base. Gena below eyes 0.2 times eye height. Presutural acrostichal rows closer together than they are to the dorsocentral rows, with no hairs between rows. Lower squama not projecting beyond upper. Abdomen orange, rather shining **solennis** (Meigen)
- 7 Hind tarsus modified, either apical segments laterally expanded or ventral surface of metatarsus with erect pale hairs, which continue to a greater or lesser extent onto the remaining segments; (also mid tarsus, especially metatarsus, have these hairs) 8
- All tarsi normal 11
- 8 Last 3 segments of mid and hind tarsi laterally expanded. Lower squama projecting beyond upper. Palpus clear yellow or orange-yellow; basal antennal segments orange-yellow; humeral calli and tip of scutellum yellow; abdomen orange; legs mainly orange. Cruciate interfrontal setulae present. Presutural acrostichal rows widely separated **winthemi** (Meigen)

- Hind tarsus rather thickened and short (4 times as long as wide) and densely clothed ventrally with erect fine yellowish hairs of equal length, which are at right angles to tarsus Lower squama not projecting beyond upper 9
- 9 Scutum more or less equally dark in ground colour (at most with traces of yellowish orange colour on corners of humeral calli and tip of scutellum). Arista pubescence very short. [Note: these two species are probably very difficult to separate in the females except by association with males; *furva* is often darker, generally with the femora dorsally and apically infuscated, and interfrontalia dark in proximal half. *P. circumpolaris* generally has paler humeral calli and interfrontalia mainly orange]
 **furva** Ringdahl, **circumpolaris** Ackland & Griffiths
- Scutum with humeral and postalar calli, and much of scutellum (apically and on ventral surface) orange-yellow. Arista more distinctly pubescent (longest hairs about as long as basal diameter of arista) 10
- 10 Humerus and scutellum wholly orange. Hind tibia with 3 *ad* setae; tarsi paler **fulgens** (Meigen)
- Humerus and scutellum not so transparent orange Hind tibia with 2 *ad* setae; tarsi darker
 **transgressa** (Zetterstedt)
- 11 Hind tibia with 2 *av* setae (*flavifrons* sometimes has 2?) 12
- Hind tibia with only 1 *av* seta (*laticornis* might come here, hind tibia with 1 *av*?) 15
- 12 Hind tibia with only 2 *ad* and 2 *pd* setae; abdomen with distinct darker median vitta **holosteae** (Hering)
- Hind tibia with 3 or more *ad* setae 13
- 13 Genal setae clearly biserial. Interfrontalia orange Palpus entirely orange or brownish orange Scape and pedicel orange, sometimes infuscated with brown; abdomen dark in ground colour, densely greyish dusted without median vittae **laticornis** (Fallén)
- Genal setae uniserial, at most 1–2 setae above row. Palpus dark brown or black [*steini* also comes in here! check this] 14
- 14 Fore tibia without an *ad* seta. 3 pairs of frontal setae. Lower posterior katapisternal seta at most 0.6 times length of upper seta **dulcamarae** Wood
- Fore tibia with a strong *ad* seta. Lower posterior katapisternal seta nearly as long as the upper seta. Generally only 2 pairs of frontal setae, though occasionally 3 pairs may be present; **setaria** (Meigen)
- 15 Lower squama distinctly projecting beyond upper 16
- Lower squama not projecting beyond upper, or only slightly 18
- 16 Occiput and pleura with yellow hairs **transversa** (Fallén)
- Occiput and pleura with only dark hairs 17
- 17 Palpus entirely dark, or at most extreme base paler brownish.. No cruciate interfrontal setae. Hind tibia with only 2 *pd* setae. Apical segments of all tarsi with a pair of tiny sclerotized ventral processes in the form of flattened boomerangs. Tarsus black. Lower posterior katapisternal seta nearly as long as upper. Scutellum dark in ground colour, or at most extreme tip orange **rufina** (Fallén)
- Palpus entirely yellow, or only weakly brownish at apex. Cruciate interfrontal setulae present. All tarsi orange or brownish. Lower posterior katapisternal seta short and fine. Scutellum partly orange in ground colour
 **ulmaria** Rondani
- 18 Legs (including coxae and tarsi) entirely dark brown or black 19
- Legs entirely or in part yellowish orange 21
- 19 Prealar seta very short and fine. Lower posterior katapisternal seta absent or very short. Abdomen very thinly dusted, consequently with distinct blackish shine. Small species about 3 mm
 **meridiana** (Villeneuve)
- Prealar longer. Lower posterior katapisternal seta at least half length of upper seta 20
- 20 Hind tibia with 3 *ad* setae (distal one small). Fore tibia with a dorsal seta above the preapical. 4 pairs of frontal setae. Prealar seta about as long as posterior notopleural seta. A developed upper anterior anepisternal seta present. Larger species about 6–7 mm **rubivora** (Coquillett)
- Hind tibia with only 2 *ad* setae. Fore tibia without a dorsal seta above the preapical. 2 pairs of frontal setae. Prealar seta slightly shorter than posterior notopleural seta. No developed upper anterior anepisternal seta.

- Abdomen greyish dusted, without shine. About 4 mm **provecta** (Villeneuve)
- 21 Lower posterior katepisternal seta one-third length of upper seta or less, or represented by a fine hair (occasionally the lower posterior katepisternal seta is longer in *betae* and *cunicularia*; in these cases Hind tibia with 4-5 *ad* setae, Mid tibia with the *ad* seta longer than *pd*, (which is nearly at the same level), gena wider (1.6) than width of postpedicel, cruciate interfrontal setulae absent, postpedicel not reaching peristomal margin). Prealar seta very short and weak, less than half length of posterior notopleural, and Hind tibia with 3 or more *ad* setae..... 22
- Lower posterior katepisternal seta more developed, at least nearly half length of upper seta, often nearly as long as upper..... 25
- 22 Abdomen in dried specimens strongly tapering caudad. tergite VI extensively membranous in the middle. tergite VI and sternite VI partly coalesced along their lateral margins. sternite VI large and bulging. Accessory sclerite well developed with anterior margin flexed downwards. Sclerites of 8th sternite comparatively large **betae** (Curtis)
- Abdomen in dried specimens only slightly tapering caudad. tergite VI completely developed or just narrowly membranous along centre line. Tergite VII and sternite VII not coalesced. Accessory sclerite small and without anterior margin flexed downwards. Sclerites of sternite VIII comparatively small 23
- 23 Sternite VII strongly bulging and with spinulose vestiture in the middle **exilis** (Meigen)
- Sternite VII with normal vestiture 24
- 24 Sternite VII rather bulging. Accessory sclerite broader, with well defined lateral margins..... **cunicularia** (Rondani)
- Sternite VII not bulging. Accessory sclerite narrower, with poorly defined and irregular lateral margins **hyoscyami** (Panzer)
- 25 Cruciate interfrontal setulae present and often quite strong..... 26
- Cruciate interfrontal setulae generally absent, or if a very small pair present, try this couplet..... 29
- 26 Hind tibia with only 2 *ad* setae. postpedicel rather long, reaching mouth margin. tergite VI shining black in contrast to dusted tergite V. Face almost flat, lower margin of head in profile shorter than width of head at level of lunule; parafacial narrow, in profile almost linear; mentum of proboscis slightly shorter than palpi and shining black. Hind tarsi rather setulose ventrally, but without short fine pale erect hairs, and generally black in contrast to the clear yellow legs **deprimata** (Zetterstedt)
- Hind tibia with 3 *ad* setae..... 27
- 27 Palpus dark brown or black on distal half, contrasting with the pale orange base, and expanded in apical half. Frontal vitta almost entirely orange with fairly robust cruciate interfrontal setulae. Humeral calli and margins of scutellum translucent orange. Leg setae rather robust; tarsi black **caesia** Stein
- Palpus entirely yellowish orange 28
- 28 Pleura largely translucent orange in ground colour. Scutellum either entirely translucent yellowish orange or sometimes darkened blackish with grey dust. Lower posterior katepisternal seta long and strong, almost as long as upper. Postpedicel rather large, apex reaching below level of peristomal margin and more or less suffused with orange in basal half, especially on inner surfaces. Palpus swollen and laterally compressed **pallidoscutellata** (Zetterstedt)
- Scutum and pleura largely dark in ground colour with grey dusting. Scutellum only orange along margins and at apex; lower posterior katepisternal seta shorter, about two-thirds to three-quarters length of upper. postpedicel not so large, mainly dark, only vaguely lightened orange at extreme base. Palpus slightly swollen but not laterally compressed. **calyptrata** (Zetterstedt)
- 29 Hind tibia with 3 equally long and strong dorsal preapical setae (the *pd* seta as strong as the other two)..... 30
- Hind tibia with only 2 strong dorsal preapical setae, the *pd* seta if present short and weak, or all dorsal preapical setae short and weak 32
- 30 Basal antennal segments yellow or orange-yellow; abdomen reddish orange in ground colour **bicolor** (Wiedemann)
- Basal antennal segments entirely dark; abdomen dark in ground colour 31

- 31 Interfrontalia entirely dark brown or black. Prealar seta as long as posterior notopleural seta. Fore tibia largely black. Scutellum with 20–25 hairs on disc. 2 frontal setae **rugulosa** (Zetterstedt)
- Interfrontalia entirely orange, or at least in anterior half. Prealar seta shorter than posterior notopleural seta. Fore tibia only infuscated brownish. Scutellum with 6–10 hairs on disc. 4 pairs of frontal setae **nigrisquama** (Stein)
- [Note: *nigrisquama* is included in both sections of couplet 29, as in the only two female specimens available, one has a developed *pd* apical on hind tibia, the other has only a weak setulose hair here]
- 32 Presutural acrostichal rows widely separated, distance between them distinctly more than distance between acrostichal and dorsocentral rows with numerous hairs between rows. postpedicel rather long. Lower posterior katepisternal seta displaced forwards so that it is about one-fifth of the way between upper anterior and posterior setae. Parafacials narrow **geniculata** (Bouché)
- Presutural acrostichal rows either closer together than to the dorsocentral rows, or equally separated from them
- 33 Palpus clear yellow or orange (if darkened apically then no developed upper anterior anepisternal seta present). Basal antennal segments either clear orange or only infuscated brownish..... 34
- Palpus mainly dark, at most orange basally. A developed upper anterior anepisternal seta present. Basal antennal segments dark. 38
- 34 Lower occiput with some pale hairs (these species may be difficult to separate, *tabida* appears to have entirely yellow legs, *pulchripes* often has a brownish patch at apices of mid and hind femora) **tabida** (Meigen), **pulchripes** (Loew)
- Lower occiput with only dark hairs 35
- 35 Scutum rather shining brownish orange when viewed from most angles and often with a brown vitta along acrostichal setae. Frontal triangle in front of anterior ocellus somewhat shining. Tarsi black **vittigera** (Zetterstedt)
- Scutum dusted, hardly shining. Ocellar triangle dusted greyish 36
- [The following 3 species are very difficult to identify in the females, unless they can be associated with males; their ovipositors show some small differences. The following characters are included without any confidence that they will work]
- 36 Palpus entirely yellow or yellowish orange. Tarsi orange-brown in ground colour but darkened by black setulae and hairs..... **incisiva** Stein
- Palpus darkened in apical half 37
- 37 Interfrontalia mainly orange, only darkened around ocellar triangle. Lower posterior katepisternal seta about two-thirds length of upper..... **zonata** (Zetterstedt)
- Interfrontalia more extensively darkened in proximal half. Scutum more extensively dark Lower posterior katepisternal seta almost as long as upper..... **notabilis** (Zetterstedt)
- 38 Prealar seta very short and weak, less than half length of posterior notopleural seta. [**This couplet does not work as *flavifrons* has a short prealar; try both couplets**] 39
- Prealar seta longer, at least half length of posterior notopleural..... 40
- 39 Parafacials about three-quarters width of postpedicel; gena about 1.25 times width of postpedicel. At least 4 pairs of frontal setae..... **nigrisquama** (Stein)
- Parafacials at narrowest part about half width of postpedicel or less. Gena about 0.75 times width of postpedicel. Generally only 2 pairs of frontal setae, occasionally 3 pairs..... **flavifrons** (Walker)
- 40 Postpedicel rather long, 2.6 times as long as wide, surpassing level of parastomal margin. Parafacials very narrow, hardly 0.2 times width of postpedicel, little visible in profile..... **sociella** Stein
- Postpedicel shorter, at most 2.2 times (1.6–2.2) as long as wide, hardly reaching parastomal margin. Parafacials from 0.6 times to as wide as postpedicel 41
- [The next couplet needs rewriting; more reliably named material is needed]
- 41 Postpedicel 2.0–2.2 times as long as wide. Prealar seta nearly as long as posterior notopleural seta (0.9 times). Hind tibia with 4 *ad* and 2–3 *pd* setae **conformis** (Fallén)

- Postpedicel shorter, 1.6 times as long as wide. Prealar seta shorter, about 0.6–0.7 times length of posterior notopleural seta. Hind tibia with 3 *ad* and 2 *pd* setae **interruptella** (Zetterstedt)

PEGOPLATA

Males

- 1 Arista plumose, total width of hairing as long as or longer than width of postpedicel. Scutum and abdomen with light bluish grey dusting and shifting blackish reflections. Anterior knees narrowly pale. Larger species, wing length normally 5.5 mm or more..... 2
- Arista almost bare, longest hairs not longer than basal arista width. Dusting of scutum and abdomen generally greyish or brownish. Anterior knees dark. Smaller species, wing length 4.5–5 mm..... 3
- 2 Lower squama smaller in area than upper squama, not projecting beyond the latter, and whitish
..... **juvenilis** sub. sp. **nitidicauda** Schnabl
- Lower squama as large as upper squama, and projecting beyond the latter, and pale yellowish
..... **palposa** Stein
- 3 Peristomal margin strongly projecting forwards beyond level of parafrontal angle. Mid tibia with an *av* seta. Face below lunule and between insertion of antennae swollen into a small projecting knob. Proepisternum with a few pale hairs. Proboscis strikingly long, mentum 0.7 times head height **aestiva** Mg.
- Peristomal margin not projecting. Mid tibia without an *av* seta. Upper part of face not swollen. Proepisternum bare. Mentum not more than 0.3 times head height 4
- 4 Upper occipital setal row with several setulae below it. Arista almost bare. Palpus only slightly dilated 5
- Upper occipital setae uniserial, with a bare space immediately below it. Arista distinctly pubescent, with hairs distinctly longer than thickness at base. Palpus rather strongly dilated 6
- 5 Scutum seen from behind almost uniformly dark, especially in front of suture where there are no distinct vittae, only a narrow transverse band of paler dusting. Hind femur with very inconspicuous *pv* setae, normally one longer one near base and 1–2 near middle. Surstylus apically cleft..... **infirma** Mg.
- Scutum seen from behind with distinct narrow median and broader lateral vittae on a greyer background, at least in front of suture. Hind femur with numerous long *pv* setae. Surstylus simple in outline, exterior surface clothed with tiny outstanding setulae **debilis** Stein
- 6 Scutum viewed from behind with a more or less complete dark median vitta which reaches scutellum. Costa hairy along whole length ventrally. Cercal plate ending in a bare two pronged tip. Surstylus simple in outline. Setulae in front of humerus normal, not spinose..... **nigroscutellata** Stein
- Scutum viewed from behind with a dark median vitta in front of suture, postsuturally it is indistinct and does not reach scutellum. Costa bare on ventral surface. Cercal plate with a simple hairy tip. Surstylus apically with a small rounded incision. The shorter setulae in front of humerus coarser and more spinose than those in any other species **patellans** Pand.

PEGOPLATA

Females

- 1 Arista plumose, total width of hairing as long as or longer than width of postpedicel. Scutum and abdomen with light bluish grey dusting and shifting blackish reflections. Wing base and veins rather yellowish
2
- Arista almost bare, longest hairs not longer than basal arista width. Dusting of scutum and abdomen generally greyish or brownish. 3
- 2 Lower squama smaller in area than upper squama, not projecting beyond latter. Palpus less strongly dilated
juvenilis sub sp. *nitidicauda* Schnabl
- Lower squama larger in area than upper and projecting beyond latter. Palpi very strongly dilated
..... **palposa** Stein
- 3 Peristomal margin strongly projecting forwards beyond level of parafrontal angle. Mid tibia with an *av* seta.

- Face below lunule and between insertion of antennae swollen into a small projecting knob. Proepisternum with a few pale hairs. Proboscis strikingly long, mentum 0.7 times head height **aestiva** Mg.
- Peristomal margin not projecting. Mid tibia without an *av* seta. Upper part of face not swollen. Proepisternum bare. Mentum not more than 0.3 times head height 4
- 4 Palpus only moderately dilated. Arista very short pubescent 5
- Palpus strongly dilated, spoon or ladle shaped. Arista longer pubescent, hairs about as long as basal arista thickness 6
- 5 Abdomen darker grey dusted with distinct median vittae, but without shifting pattern. Mentum rather thinly dusted, at least partly shining towards base **infirma** Mg.
- Abdomen lighter dusted with shifting pattern in addition to median vitta. Mentum more densely dusted, not shining **debilis** Stein
- 6 Costa setulose on whole length ventrally. Palpus usually more strongly dilated. Setulae in front of humerus normal, not spinose **nigroscutellata** Stein.
- Costa bare ventrally. Palpus usually less strongly dilated. Setulae in front of humerus coarser and more spinose **patellans** Pand.

PHORBIA

Males

- 1 Hind tibia with a long and strong *pv* apical seta, in addition to the *av* apical 2
- Hind tibia without a *pv* apical seta 3
- 2 Thorax and abdomen with shining blackish areas in certain lights. Ocellar triangle partly shining blackish, especially in front of anterior ocellus. Crossed setae on interfrontalia nearly as long and strong as the proclinate orbitals. Presutural acrostichal setae hardly stronger than thoracal hairs. Processes of sternite V gradually tapering to a rather narrow apex, with the setae on inner margin not separated from any at apex. Apical section of aedeagus more slender with an asymmetrical, laterally directed acrophallus **moliniaris** Karl
- Thorax and abdomen densely dusted greyish, without any shining black areas. Ocellar triangle grey dusted. Crossed setae on interfrontalia absent or only developed as tiny hairs. Presutural acrostichal setae well developed. Processes of sternite V with setae on inner margin towards apex on a raised step, and separated from those at apex by an incision. Apical section of aedeagus more robust and without laterally directed acrophallus **nuceicornis** Pand.
- 3 Mid tibia without *av* setae 4
- Mid tibia generally with one of more *av* setae (sometimes absent in *fumigata*) 5
- 4 Cercal plate pointed at apex with 2 longer setulae which reach to middle of surstylus. Acrophallus short nuditibia Fons
- Cercal plate blunt ap apex with only short hairs. Acrophallus long and slender **atrogrisea** Tiens
- 5 Cercal plate with a rather dense but short tuft of hairs and setulae 6
- Cercal plate without hair tuft, at most with some long single hairs, or equally short haired 7
- 6 Surstylus in profile wider in distal half, with a tuft of hairs on posterior margin medially. Distal section of aedeagus robust, with a very small apical acrophallus **bartaki** Ack. & Mich.
- Surstylus in profile long and slender and more or less of equal width. Distal section of aedeagus tapering, with a long slender acrophallus **juncorum** Ringd.
- 7 Distal half of surstylus in profile twice as wide as proximal half. Space between processes of sternite V is V-shaped. Longer spines before distal break as long as small crossvein **fumigata** Mg.
- Distal half of surstylus in profile at most only slightly wider than proximal half 8
- 8 Interfrontalia narrower, distance between eyes at narrowest place equal to about twice width of anterior ocellus. Cercal plate square ended without long setulae **atrogrisea** Tiens
- Interfrontalia wide, distance between eyemargins at narrowest place equal to width of genae or flagellomere.

- Cercal plate pointed with 4 long setae or narrowly rounded without long setae 9
- 9 Surstylus slim and from base to apex equally curved and narrow, on inner side without hair tuft. Cercal plate at apex with four very long setae. Processes of sternite V not incised inside before apex. Acrophallus slender. Smaller species **sepia** Mg.
- Surstylus not equally narrow from base to apex, and cercal plate without long setae. Surstylus in caudal view with a tuft of short setulae medially on inner margin. Processes of sternite V inside before apex deeply incised. Acrophallus more robust. Larger species **longipilis** Pand.

PHORBIA

Females

- 1 Hind tibia with a strong *pv* preapical seta in addition to the *av* preapical seta 2
- Hind tibia without a *pv* preapical seta, only an *av* preapical present 3
- 2 Cruciate interfrontal setulae absent. Orbital and frontal setae not in a straight line, upper frontal setae level with and overlapping anterior orbital seta and closer to interfrontalia. Frontal triangle, ocellar tubercle and parafrontalia densely olive-grey dusted. Thorax and abdomen grey dusted, latter with a darker median vitta. Cerci in profile with dorsal distal corner upturned into a point. 1 pair of stronger presutural acrostichals setae. Genal setae biserial. Hind tibia with about 4 *ad* setae **nuceicornis** Pand.
- Cruciate interfrontal setae present. Orbital and frontal setae more or less in a straight line. Upper frontal setae not overlapping orbital setae. Genal setae uniserial. Hind tibia generally with 2–3 *ad* setae Frontal triangle, ocellar tubercle and parafrontalia shining black. Thorax and abdomen largely shining black, latter without a median vitta. Cerci in profile with a less produced dorsal corner, ending in a blunt point. No stronger presutural acrostichals setae **moliniaris** Karl
- 3 Lower posterior katepisternal seta at least half as long as upper seta 4
- Lower posterior katepisternal seta less than half length of upper seta 6
- 4 Mid tibia generally with 2 *av*, 2–3 *ad* and 2–3 *pd* setae, all rather long and strong. Hind tibia with 5 or more *ad* and *pd* setae. Costal spines and anterior costal spinules strikingly long. 1 pair of longer presutural acrostichal setae. Abdominal tergites 4–5 with long erect discal and hindmarginal setae **longipilis** Pand.
- Mid tibia generally with only 1 *av* and 1–2 *ad* setae. Setae of legs and abdomen generally slightly shorter and weaker 5
- 5 Mid tibia with 2 *pd* setae. Cerci in profile with dorsal distal corner ending in a short point. Brownish grey dusted species **fumigata** Mg
- Mid tibia with 1 *pd* seta. Cerci in profile with dorsal distal corner drawn out into a long narrow point. Light grey dusted species **nuditibia** Fonseca
- 6 Genal setae uniserial, at least anteriorly. Smaller species, 3–4 mm. Katepisternal setae 1 + 1, or posterior lower setae represented by a hair 7
- Genal setae biserial or even triserial. Larger species, 4–5 mm. Katepisternal setae 1 + 2 8
- 7 Mid tibia generally with 2 *av* setae. Cerci in profile narrower at basal third, lower margin gradually curved **sepia** Mg
- Mid tibia generally with only 1 *av* seta. Cerci in profile narrower at basal third, lower margin more or less straight **bartaki** Ack & Mich
- 8 Orbital and frontal setae not in a straight line. Mid tibia generally with 2 *av*. Costa basal to the longer spines without stronger erect spinules. Cerci with dorsal margin straight in distal half **atrogrisea** Tiens
- Orbital and frontal setae more or less in a straight line. Mid tibia generally with only 1 *av* seta. Costa basal to the longer spines with strong erect spinules. Cerci with dorsal margin sinuate **juncorum** Ringd.

STROBILOMYIA

Males

- 1 Processes of sternite V with strongest median setae situated on basal part. Terminalia: surstylus wider medially and less curved in profile, cercal plate with 2 setae apically. sternite V processes in profile evenly rounded apically **melania** Ackland
- Processes of sternite V with strongest setae situated at middle. Terminalia: surstyli more or less parallel-sided, cercal plate with one seta apically. sternite V processes in profile curved dorsally at apex and narrowing **infrequens** Ackland

STROBILOMYIA

Females

- 1 Ovipositor with setae at hind margin of segment.VIII. Sternite V pieces about two-thirds as long as tergite VIII. Cerci short but distinctly flattened. Notopleural depression without hairs between the two longer setae **infrequens** Ackland
- Hind margin of segment VIII of ovipositor at most with short setae. Pieces of sternite VIII at most half as long as tergite VIII. Cerci with free apices almost as long as remaining parts. Notopleural depression often with some hairs between the two strong setae **melania** Ackland

ZAPHNE

Males

- 1 Mid tibia without an *av* seta but with a strong *pv* seta. Arista plumose, the longest hairs at least nearly as long as width of postpedicel. Katepimeron hairy **divisa** Mg.
- Mid tibia with an *av* seta. Arista shorter plumose, or nearly bare..... 2
- 2 Katepimeron hairy. Tergites 7 and 8 bare, dusted, tergite 9 with short stiff setae **spiniclunis** Pandelle
- Katepimeron bare 3
- 3 Notopleural depression with some fine hairs about bases of setae, or at least behind posterior one 4
- Notopleural depression bare apart from the two setae 6
- 4 Ventral margins of tergite IV on each side with a dense brush of long setulose hairs, which become finer and somewhat crinkly towards their tips. Hind femur without long *pv* setae near middle 5
- Ventral margins of tergite IV without dense brushes of long setulose hairs, though some long scattered setae are present. Hind femur with some long *pv* setae near middle..... **ambigua** Fall.
- 5 Fore tarsus laterally compressed, with a long curved stiff seta at tip of last tarsomere, and some short stiff setulae anteriorly on tarsomeres II and III. Mid and hind tarsi conspicuously long and slender. Katepisternal setae 1:2, lower anterior seta weak or absent **wierzejskii** Mik
- Fore tarsus normal. Katepisternal setae 2:2, lower anterior seta strong **caudata** Zett.
- 6 Arista with very short hairs, total width of hairing hardly one-third width of postpedicel. Prealar seta nearly twice as long as posterior notopleural seta. The stronger costal spines before distal break distinct, about as long as small crossvein. Margins of tergite IV with dense long setae **nuda** Strobl
- Arista short plumose, width of hairing at least two-thirds width of flagellomere. Prealar seta slightly shorter than posterior notopleural seta. The stronger costal spines before distal break practically absent. Processes of sternite V with long laterally directed setulose hairs which are curled at their tips **inuncta** Zett.

ZAPHNE

Females

- 1 Mid tibia without an *av* seta. Arista long plumose **divisa** Mg.
- Mid tibia with an *av* seta. Arista shorter plumose or nearly bare..... 2
- 2 Parafrontals between orbital setae and eye margins with numerous short proclinate setulose hairs. Katepimeron with anterior upper ridge setulose..... **spiniclunus** Pand.
- Parafrontals between orbital setae and eye margins with at most some isolated hairs. Katepimeron bare 3
- 3 Arista very short pubescent, the length of hairs hardly longer than the diameter of arista at base. Prealar seta long and strong, at least 1.5 times as long as posterior notopleural seta..... **nuda** Strobl
- Arista longer haired, the length of longest hairs distinctly longer than diameter of arista at base. Prealar seta shorter than posterior notopleural seta..... 4
- 4 Notopleural depression bare apart from the two strong seta, or with 1–2 behind posterior seta. Lower anterior katepisternal seta strong..... **inuncta** Zett.
- Notopleural depression hairy (sometimes 1–2 fine hairs behind posterior notopleural seta in *wierzejskii*)..... 5
- 5 Lower anterior katepisternal seta very fine, short and hair-like, or absent. Mid femur generally with 1–2 longer setae at base ventrally **wierzejskii** Mik
- Lower anterior katepisternal seta longer and stronger. Mid femur ventrally with 3–4 setae 6
- 6 Mid femur without long *pv* setae. Arista shorter haired, total width of hairing not quite as wide as width of postpedicel. Generally no developed presutural acrostichal setae present..... **caudata** Zett-
- Hind femur with 1 or more longer fine *pv* setae. Arista longer haired, total width of hairing about as wide as width of postpedicel. One pair of presutural acrostichal setae often developed
..... **ambigua** Fall.

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