

**KEY TO SPECIES WITH AN OPEN DISCAL CELL by ALAN STUBBS 2001**  
**Revised by John Kramer 2016**

This key includes part of the Chioneinae covering those species with an open discal cell, and incorporates all other crane flies sharing this character.

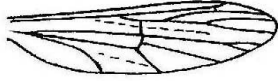




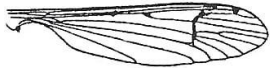

Newly emerged *Molophilus*, *Tasiocera* and *Erioptera* may have the wing veins so hairy that the venation is obscured. This is a key character except that the hairs easily rub off.




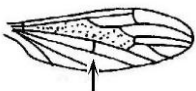
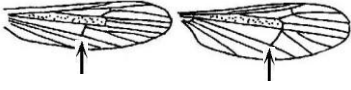
Mosquitoes when pristine have a thick covering of scale-like hairs but the females have a long proboscis and the males have plumose antennae




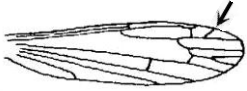
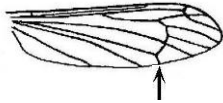
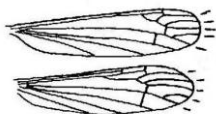
Pristine moth flies (Psychodidae) are also very hairy but have short broad wings with different venation.

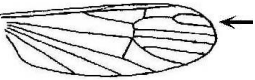

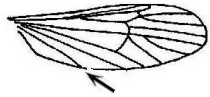
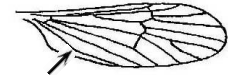
Note that the absence of a discal cell is a very common feature among Nematocera. Dixidae are similar to crane flies (see family key). Most other Nematocera have a much simpler venation, including fewer basal cells: the most common error is treating some genera of fungus gnats as crane flies. Check that there are two anal veins present before proceeding.

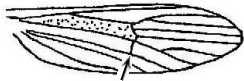
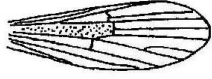



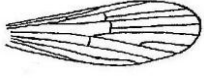
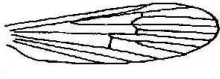
KEY TO ALL CRANEFLIES WITHOUT A DISCAL CELL  
(including small species with dense hairs obscuring wing venation)

1.	Only one anal vein (i.e. below lower basal cell). Three wedge-shaped cells near apex. Two faint spurious veins (shown as dashed lines) with a fold along the lower one.	 <p style="text-align: right;">Family Ptychopteridae</p>
-	Two anal veins. Normally at most two wedge-shaped cells near apex (Three in black bodied <i>Tricyphona</i> ). No spurious veins.	2
2.	Vein M1 with two oblique hang-veins between lower apex of upper basal cell and wing tip. (One long and one short-palped species.)	 <p style="text-align: right;">3</p>
-	Vein M1 simple or with only one fork. (Short-palped species only).	 <p style="text-align: right;">4</p>
3.	Long-palped cranefly ( <i>Tipulidae</i> ). Blackish bodied, with white tarsi. Body length c. 20 mm. Wing strongly tapered at base.	 <p style="text-align: right;"><i>Dolichopeza albipes</i></p>
-	Short-palped, ( <i>Limnophilinae</i> ). Yellow bodied, wing with an anal lobe. (Other <i>Euphylidorea</i> have a closed discal cell.)	 <p style="text-align: right;"><i>Euphylidorea aperta</i></p>
4.	Dark brown, fairly large species (body 20 mm). Near vertical alignment of many veins with dark clouding. Hairy-eyed. (See Key to <i>Pediciidae</i> ).	 <p style="text-align: right;"><i>Pedicia sg. Amalopsis occulta</i></p>
-	Smaller or lacking wing-markings. Any vertical vein alignment less complete.	5
5.	Two r veins, thus boxing in an extra rectangular cell near front outer edge of wing. One or usually two wedge-shaped cells. Hairy-eyed cranefly. (See Key to <i>Pediciidae</i> .)	 <p style="text-align: right;">Dicranota (incl sg. Paradicranota)</p>

-	Only one r vein.		6
6.	Two or three short wedge-shaped cells at distal edge of wing. (Hairy-eyed Craneflies.)		7
-	One or no wedge-shaped cells at distal edge of wing. [Bare-eyed]		8
7.	Black bodied. Three wedge-shaped cells at apex of wing. Hairy-eyed Craneflies (See Key to Pediciidae.)		Tricyphona
-	Brown bodied. Two wedge-shaped cells at apex of wing. Hairy-eyed Craneflies. (See Key to Pediciidae.)		Dicranota sg. Rhabdrolabis exclusa
8.	m-cu very isolated at junction with M, towards middle of lower margin of lower basal cell.		9
-	m-cu at or very close to other vein junctions (usually level with lower corner of end of lower basal cell). If near middle of wing, other veins converge here.		11

9.	Small, weak, pale lemon-yellow species with black tips to femora and tibiae. Wing very broad. vein r tall at end of R1. R2+3 strongly curved. (Key to Limoniinae)	 <p>Thaumastoptera calceata</p>
-	Wing narrower. Vein r short, before apex of R1. R2+3 straight. Brown or yellow brown species.	 <p>10</p>
10.	Wing exceptionally narrow. R2+3 simple to wing apex. Without wing markings. (Key to Limoniinae)	 <p>Orimarga</p>
-	Wing not exceptionally narrow. R2+3 forked. R2 oblique. Usually with wing- markings. [Chioneinae]	 <p>Idiocera (p13 )</p>
11.	Black bodied with broad wing. Veins strong and well spread, anal lobe strong. Apex of Cu, at lower outer corner of 2nd basal cell abruptly down-turned. (2 species. See Key to Limnophilinae, p 5 )	 <p>Hexatoma</p>
-	Wing usually narrower and with weaker more crowded veins. Cu straight to margin. Body can be black but usually brown or yellow.	<p>12</p>
12.	Counting up from Cu (runs along bottom of lower basal cell), 5 long veins reach wing tip. (See Key to Limoniinae)	 <p>Dicranomyia</p>
-	Counting up from Cu, 6 long veins reach wing tip. (Sub-family Chioneinae)	<p>13</p>

13	Broad wing with R2+3 forked so that R2 and R3 run parallel and widely spaced. Small drab grey-brown species.	 <p>Cheilotrichia sg. Empeda cinerascens</p>
-	Wing often narrower. Without distinctive venation above: if R2+3 forked to produce parallel veins, then veins long and closely spaced.	14
14.	R2 short, strongly oblique. (Blackish body with some yellow markings.)	 <p>Ellipteroides (p 7)</p>
-	R2 long, fairly parallel with other veins reaching wing apex.	15
15.	In fresh specimens membrane covered in soft brown hairs, and even if these rub off, the membrane has a brownish hue. Wing with apical veins less compact and rather more splayed.	16
-	Wing with apical veins very compact and parallel. In fresh specimens veins with hairs, but membrane bare.	17
16.	Vein A2 straight.	 <p>Ormosia (p 15)</p>
-	Vein A2 bent so that the apical section runs parallel with the hind margin [as in Erioptera].	 <p>Rhypholophus (p 21)</p>

17.	m-Cu level with end of second basal cell. Wing venation always clearly visible.		18
-	m-Cu well before end of second basal cell. Pristine specimens may have such densely hairy veins that the venation is obscured.		20
18.	A2 straight. Top of thorax with a pair of narrow dark stripes.		Arctoonopa (p 6)
-	A2 bent half way along, last section runs parallel with the hind margin. Top of thorax with at most one distinct narrow stripe.		19
19	Grey thorax with a thin median dark line which is sharp-sided.		Erioonopa (p8)
-	Thorax yellow or brown, any median darker stripe is broader and diffuse.		Erioptera (p8)
20.	Minute very hairy species (body only 1-2 mm), Body dark or light brown. Wing strongly tapered at base.		Tasiocera (p 22 )
-	Usually less 'hairy', less small (2-4 mm), Body yellow, orange, brown or black. Wing only slightly tapered at base.		Molophilus (Go to Key to Molophilus.)

Genus ARCTOCONOPA

*melampodia*: A rare species. Best known on a coastal landslip in Dorset where it is found at muddy puddles with reed.

Genus CHEILOTRICHIA


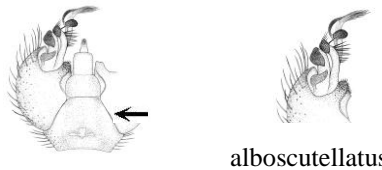
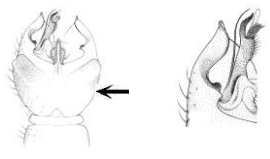
As currently defined, there are two subgenera, only subgenus *Empeda* having an open discal cell.

*Cheilotrichia (Empeda) cinerascens* A small drab dark grey to brown species. Though seemingly nondescript, the wings are very distinctive, being short and broad, with a strong anal lobe, and the widely separated yet parallel short length of R2 and R3 is highly characteristic.

This species is common, especially in April, but can still be found through to October. Generally it is most readily found by sweeping tree foliage, especially dense foliage of yew and conifers.

Genus ELLIPTEROIDES

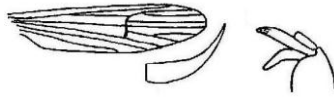
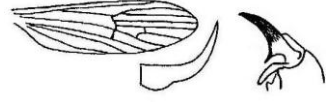
There are two subgenera, *Ellipteroides (lateralis)* with an open discal cell and *Protogonomyia (alboscuteclatus and limbatus)* with a closed discal cell, but also included here. (See also Key to Species with a Closed Discal Cell.) These are rather dark brown or blackish species, usually with some yellow markings on the thorax and a yellow line down the side of the abdomen.

1.	Male upper style with much of the finger straight and the blunt process is almost square.	 <p style="text-align: right;">lateralis</p>
-	Coxite and styles not as above. Discal cell closed	2
2.	Pale yellow scutellum. Body dusted, legs brown. Male sternite 9 shorter than length of coxite. Female cerci elongate and tapering.	 <p style="text-align: right;">alboscuteclatus</p>
-	Thoracic stripe more distinct. Male sternite 9 large, broad and smoothly concave on the hind margin. Last tergite longer than coxite. Female ovipositor very short.	 <p style="text-align: right;">limbatus</p>

*Ellipteroides Ellipteroides lateralis* Associated with fen and fen carr.

Genus ERIOCONOPA

This has been split from *Erioptera*, both having the end of the second anal vein parallel with the wing margin. However, *Eriocnopa* is dark grey bodied, with a thin median stripe on top of the thorax and, as a more technical but less apparent character, the male genitalia are inverted almost upside down.

1.	Wings very narrow. Male with styles nearly similar in size, upper one simple even at base (take care to check properly). Female cerci more gently curved, uniformly tapering from base.	 <p style="text-align: right;">diuturna</p>
-	Wings usually broader, <b>with or without discal cell</b> . Male lower style weak, upper one with a dark thorn like process and a smaller thorn at the base, arcuate in between. Female cerci more strongly curved, expanded at base.	 <p style="text-align: right;">trivialis</p>


*E. trivialis* is common where wet mud is found in combination with herbaceous vegetation, mainly in open situations. This species has a long season but is especially common in the spring.

*E. diuturna* often occurs with *trivialis*, but is much more local, preferring rushy vegetation on poor soils. It has a shorter season, essentially a late summer and autumn species though rarely it may appear as early as July.

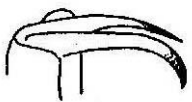







#### Genus ERIOPTERA




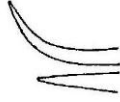
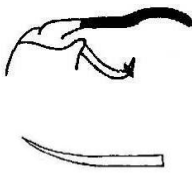

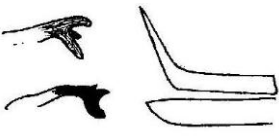
These are small species with the apical half of the second anal vein running parallel to the hind margin of the wing (as in *Erioconopa* and *Rhypholophus*). Some of the species are yellow and easily recognised but the brown and blackish species may be less obvious. With 13 species this is an important and frequently encountered genus.





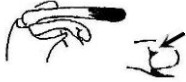

Larvae are aquatic or semi-aquatic in wet mud. The hind spiracles of *E. squalida* are adapted to pierce the air-filled cells of aquatic plants.

1.	Body, including the abdomen, yellow, orange or rusty brown.	2
-	At least the abdomen is dark.	11
2.	Pale yellow. Male styles very long. Female ovipositor very long. [teneral <i>limbata</i> rather similar]	 <p style="text-align: right;">longicauda (ex flavissima)</p>
-	Stronger coloured. Male styles and female ovipositor not so elongate.	3



3.	Body rusty yellow-brown, wings brown tinged. Male with both styles slender, pointed. Female ovipositor very broad at base.			squalida
-	Body yellow or murky yellow. Male styles not so simple. Ovipositor less expanded at base			4
4.	Males			5
-	Females			8
5.	Upper style with apex expanded (view from end of genitalia should show this style even if genitalia are compacted).			6
-	Upper style parallel-sided with blunt apex (view from end of genitalia: in side view may appear curved and pointed).			7
6.	Upper style with broad apex bearing a strong arcuate indentation. (Yellow species)			flavata
-	Upper style apex simpler, dorsally bulbose towards a blunt black-nosed apex (appearing obliquely truncate). Body often insipid orange-yellow or yellow.			nielseni
7.	Lower style with a sharp dorsal thorn. (Yellow species)			meijerei
-	Lower style pointed, leaf-like, with a small thorn near base (need to get orientation right). Eyes exceptionally large, meeting below. (Yellow species)			divisa

8.	Ovipositor strongly up-curved.	 flavata/meijerei (Very difficult to separate)
-	Ovipositor gently up-curved.	 9
9.	Cerci very slender, basal part straight and parallel-sided. Sternal valves abruptly narrow.	 divisa
-	Cerci rather more robust, gently curved and tapering from base. Sternal valves thick at base, tapering dagger-like.	 nielseni
10.	Costal cell (front edge of wing) usually darkened. Male upper style long, slender, snaking, black except at base. Female ovipositor long and slender. [usually brown bodied but newly emerged ones pale; allied to <i>longicauda</i> .]	 limbata
-	Costal cell not darkened. Male upper style not so markedly long. Ovipositor less elongate.	 11
11.	Halteres with a black knob. Thorax brown with variable amount of yellow. Upper style abruptly broad, obliquely truncate to give rather triangular shape. Lower style strongly hooked (as in some other species).	 lutea
-	Halteres with a pale knob.	 12
12.	Thorax uniformly drab pale brown (abdomen a bit darker). Male upper style tridentate. Female cerci straight before sudden up-turn into a taper towards apex. Sternal valves very broad until near apex.	 13

-	Thorax dark or with contrasting colours. Male upper style simple or bifid. Female cerci tapering and curved for most of length. Sternal valves slender tapering.		14
13.	Male upper style with splay of three blunt fingers of moderate uniform length.		griseipennis
-	Male upper style with a different tridentate structure, teeth very varied in character. Female separation difficult.		verralli
14.	Thorax with a yellow spot near the humeri at front upper corners of thorax ('shoulders'): sometimes this yellow is quite extensive. Coxae yellow. Wings with a brown tinge. Male lower style with only one tooth (need good magnification to confirm).		fusculeta
-	Thorax uniformly dark blackish grey. Coxae dark. Wings often grey tinged. Male lower style simple or with two teeth.		15
15.	Top of thorax rather more shining along mid-line. Wing narrow. Haltere knob tinged. Male genitalia very similar to fusculeta, with straight blunt upper style but lower style with an extra small tooth on top surface.		fuscipennis
-	Top of thorax of uniform colour. Wing narrow. Haltere knob yellow. Male genitalia with broad bifid upper style; lower style slender, tapered to hooked point.		sordida

**divisa** Local. Lush grassy puddles and pools at edge of shade. June-August.

**flavata** Common. Ponds and lakes with emergent vegetation, including eutrophic and mildly acid waters. June-August.

**flavissima** Rare. Base rich seepage woodland in Dorset. July.

**fuscipennis** Very common. Exposed wet mud in fields and by water; usually on mineral soil but also peat. May-September.

**fusculenta** Local. About exposed wet mud in fields and ditches, mainly on alluvial soils with little organic matter. Can be with *fuscipennis*. June-August.

**griseipennis** Local. Shaded ditches along hedgerows on mineral soils. Mainly mid May - early June, to July.

**limbata** Rare. Small streams and rivers, usually on rich mineral soil where shaded by a hedgerow or strip of scrub. June – early July.

**lutea** Very common. About exposed wet mud in fields and ditches; also in carr. Mainly on mineral soils but also on peat. May-October.

**meijeri** Rare. Wet fen, especially about springs. Mainly East Anglia. Late July - early August.

**nielseni** Scarce. flushed calcareous poor fen. July - August.



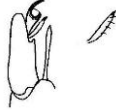



**sordida** Rare. Swamp marsh and fen in Scottish Highlands. June.

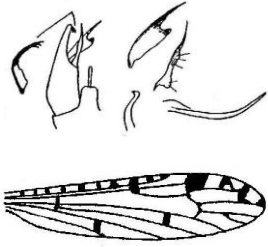
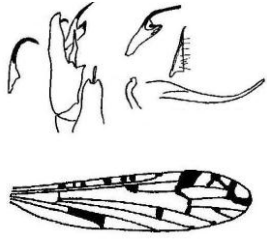
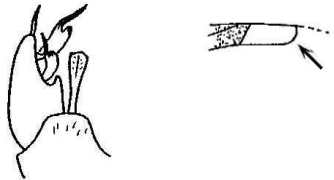
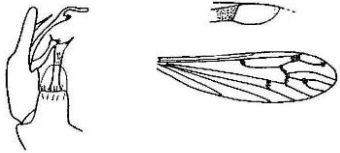
**squalida** Local. Ponds, lakes, canals with emergent vegetation. June - July.

**verralli** Rare. Calcareous clay woodland. Southern, mainly Weald. Mid May - early June.

**Genus IDIOCERA**

All species are rare. Their ecology is poorly known but they seem to be restricted to exposed seepages on raw mineral soils. Two European species that could occur in Britain are included. There is only one further species with unmarked wings, *alexanderiana* of SW Europe which has 2 stripes on top of the thorax (absent in the two British species). [Further species with marked wings include three in Europe and two in North Africa]

1.	Wings without markings, stigma light brown. R3 relatively straight.		2
-	Wings with markings. R3 strongly curved up at apex.		3
2.	Male: small lower style pointed. Aedeagus very long. [Female: separation uncertain.]		szilady
-	Male: small lower style apically truncate, with a thorn-like structure to one side. Aedeagus very short.		[connexa]
3.	Wing markings very bold. Costal cell with numerous small spots.		4
-	Wing markings relatively weak. Costal cell without conspicuous spots.		5

4.	<p>Costal cell spots extend to wing base; spot between anal veins small.</p> <p>Certain identification is only possible by comparing the male genitalia. Female with very thin cerci.</p>	 <p style="text-align: right;">sexguttata</p>
-	<p>Costal cell without spots near wing base; spot between anal veins large and elongate. Female cerci thicker and more tapering in basal half.</p>	 <p style="text-align: right;">[pulchripennis]</p>
5.	<p>R3 almost right-angled before apex. Male aedeagus clubbed at apex, blunt. Main style with black pointed apex.</p>	 <p style="text-align: right;">punctata</p>
-	<p>R3 almost evenly upcurved. Aedeagus divided at apex into two splayed spines. Main style with very elongate blunt apex.</p>	 <p style="text-align: right;">bradleyi</p>

**bradleyi** Rare, seepages over rather bare clay, mainly coastal. July.

[**connexa** European, formerly on GB list as misidentification]

[**pulchripennis** The most widespread European species, thus it could occur in Britain and would easily be confused with *sexguttata*.]

**punctata** Very rare, no recent records. June-August.

**sexguttata** Rare. Endemic. Very like *pulchripennis* except for small differences in genitalia as noted by Savchenko. Dorset, Hampshire, Glamorgan (Gower). Record for Holden Clough, Lancs., needs checking for *pulchripennis*. Voucher for old Cornwall record not seen. June. [Stary descr., gen. illr.]

**sziladyi** (ex. *connexa* GB) Rare, sandy river margins. July. [Stary gen. illr.]

[**alexanderiana** Wing unmarked, top of thorax with 2 stripes (none in *connexa* & *sziladyi*).]

## Genus ORMOSIA




Eleven species are currently known in Britain (including *ruficauda* recognised in Feb 2001). Some are commonly encountered in woodland, including carr, whilst others occur in open habitats.

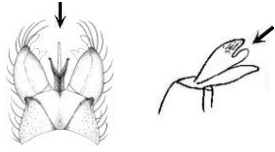
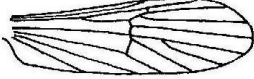
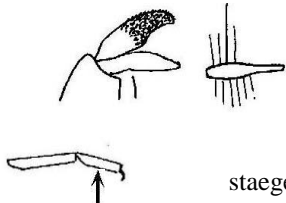
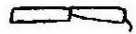
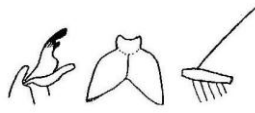
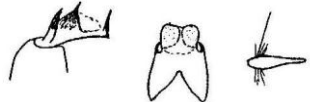
Most of the commoner species have rather broad short wings with an open discal cell and a dark grey body, but scarce species include one with a complete discal cell and several with the body yellow or rusty yellow.

With males, the styles are diagnostic. In a dried specimen the styles may often be seen clearly enough, but partial views can be misinterpreted and sometimes the styles are completely hidden. Thus the shape of the last sternite sometimes helps (illustrated in ventral view), and also the antennae (flagellar segment 4 is illustrated for all species). The relative lengths of tarsal segments may also help. Reference to the colour of leg hairs, as used by Coe (1951), is not satisfactory in practice.




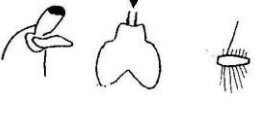

The most commonly encountered species are *nodulosa* and *hederae*, both of which are dark species.

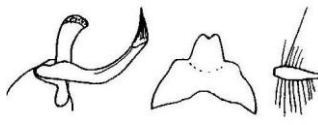
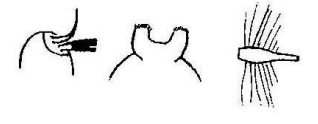
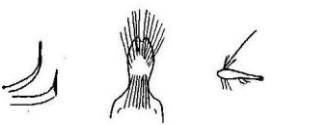
### Key to Males

1.	Discal cell present. Male styles fairly elongate, with outer style rather spoon-shaped.	 <p style="text-align: right;">fascipennis</p>
-	Discal cell open.	2
2.	Thorax yellow or rusty yellow. Male styles rather blunt ended, except bicornis in which the dominant style has two 'horns'.	 <p style="text-align: right;">3</p>
-	Whole body brown, grey or dark grey, rarely rusty brown. Male styles with at least one spine-like or blunt with a sharply defined dark apex.	 <p style="text-align: right;">6</p>

3.	Small yellow species (wing length c.4 mm) with narrow wings. Genitalia with 3-forked aedeagus. A tuft of yellow hairs projecting dorsally. Cleft dististyle. Flagellar segment 4 rather slender elongate with long hairs for whole length.	 <p style="text-align: right;">pseudosimilis</p>
-	Often larger (wing length 4-7 mm) with broad wings. Terminalia without a tuft of hairs. One style larger, dark at apex. Flagellar segment 4 different.	 <p style="text-align: right;">4</p>
4.	Dististyle with a black rather stubby apex. Last tarsal segment (5) shorter than 4. Flagellar segment 4 shaped like a long-necked bottle, the entire basal bulbous part with long hairs ventrally.	 <p style="text-align: right;">staegeriana (ex similis)</p>
-	Dististyle different. Tarsal segments 4 and 5 equal. Flagellar segment 4 different.	 <p style="text-align: right;">5</p>
5.	Dististyle blunt at apex, with a cleft, very broad at base. Aedeagus not forked. Flagellar segment 4 with a very long dorsal bristle; fine ventral hairs along much of length.	 <p style="text-align: right;">ruficauda</p>
-	Both styles with pointed dark apices, the larger style with two 'horns'. Flagellar segment 4 shaped like a long-necked bottle, all hairs confined to the base, and the dorsal bristle less dominating.	 <p style="text-align: right;">bicornis</p>



6.	Top of grey thorax with a sharp thin median dark line. Pale style bluntly tapered, dark tipped style strongly hooked. Flagellar segment 4 elongate, hairy for much of length.	 <i>lineata</i>
-	Thorax brown or dark grey, rarely yellow brown, any dark markings more extensive and not sharply defined.	7
7.	Styles rather simple, one blunt with a dark apex, the other pale and weakly developed.	 8
-	Styles more complex, with at least one hooked and spine-like.	10
8.	Last sternite with a long apical tab, at the base of which lies a long tuft of golden hairs (can be worn off). Dark tipped style very broad.	 <i>nodulosa</i>
-	Last sternite without a long tab. Dark tipped style almost parallel sided.	9
9.	Male third flagellar segment slender swollen without a parallel-sided neck, and hairy for whole length. [Further European species have similar styles; they lack the distinctive black curved spines shown projecting beyond the sternite]	 <i>depilata</i>
-	Male third flagellar segment, strongly swollen at base, with a distinct bald neck.	 <i>depilata</i> Form A

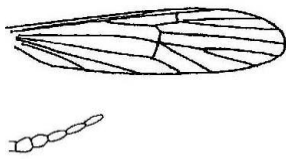
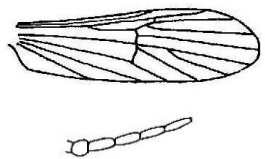

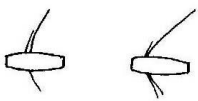

10.	One style blunt, pale with a darker apex, the other very long with a stout upturned apical thorn. Flagellar segment 4 with a long taper, ventrally hairy along most of length.	 <p style="text-align: right;">albitibia</p>
-	At least one style short hooked. Flagellar segment 4 with a long apical bald neck.	11
11.	One style is a curved spine, the other black blunt and cleft (get angle of view correct). Last sternite with a short end piece which tends to dry with a deep median U-shape trough. Flagellar segment 4 basally very swollen and hairy, apical third a bald narrow neck.	 <p style="text-align: right;">hederæ</p>
-	Both styles are simple hooked spines. Last sternite with an extended tab, with long yellow hairs on the tab. Flagellar segment 4 swollen at base, then gradually narrowing towards apex; hairs largely confined to a narrow ring at base. [very rare]	 <p style="text-align: right;">aciculata</p>


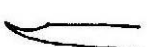

### Prototype key to females

The identification of females of most species has been far from satisfactory. Edwards (1938) and Coe (1951) used leg hair colour but this was often difficult to interpret with confidence.

The following key incorporates antennal characters, in particular the relative length of flagellar segments (flagellar segment 4 is illustrated as standard). The sternal valves (ventral part of ovipositor) have useful features, including the shape of the gap between the valves (ventral view) and the lateral profile.

Treat this key **with caution** since it is still experimental.

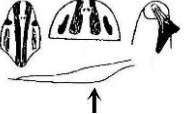
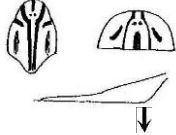


1.	Discal cell closed.	fascipennis
-	Discal cell open.	2
2.	Yellow or rusty species (at least the thorax).	3
-	Body brown or grey; rarely rusty (albitibia most likely to be rusty).	6
3.	Small species (wing length 4 mm) with narrow wings. Both thorax and abdomen yellow. Flagellar segment 1 rather barrel-shaped, almost as short as the pedicel.	 <p>pseudosimilis</p>
-	Larger (wing length 4-7 mm) with broader wings. More often rusty yellow or with a darker abdomen. Flagellar segment 1 more elongate and much longer than the pedicel.	 <p>4</p>
4.	Flagellar segment 4 little more than twice as long as wide. Rusty yellow species.	 <p>ruficauda</p>
-	Flagellar segment 4 about three times as long as wide.	 <p>5</p>
5.	Sternal valve thick parallel-sided for much of length (the only pale Ormosia like this). Rusty brown species.	 <p>bicornis</p>

-	Sternal valve slender tapering to point. Thorax yellow, abdomen often brownish.		staegeriana (ex.similis)
6.	Thorax grey with narrow dark median stripe. Sternal valves mainly thick but apex abruptly narrower with pointed tip.		lineata
-	Thorax greyish to dark brown (rarely reddish brown. [sternal valves needle-like])		Key to be completed

- aciculata** RDB2. There are about 9 pre 1940 records, mainly from Scotland and northern England down to Cheshire. Recent records are much fewer. the preferred habitat is assumed to be woodland. May-June.
- albitibia** A local woodland species, mainly in late summer (August-September) but occasionally much earlier.
- bicornis** RDB2. Apart from scattered records in England, woods in south Herefordshire seem to be the main stronghold. Much of the thorax is pale brown but note that some specimens of *nodulosa* can also be brownish. A late summer species, mid August-September, rarely October.
- depilata** A local species of carr (wet woodland), especially alder. May-June.
- depilata form A** one male 22.5.1938, Austwick Moss, F.W. Edwards, NHM. This may be a variant of *depilata*.
- fascipennis** RDB1. Discovered in 1986 at 1050m on Cairngorm where rough grassland was flushed by melt from a snow field. Trap sample mid June-mid July.
- hederae** Very widespread but usually in low numbers in wet woods and in hedgerows by wet fields. May-October.
- lineata** Widespread by very small streams across wet meadows or sometimes in carr. One of the earliest crane flies so easily missed. April-May.
- nodulosa** Normally abundant in dry and moist woods throughout Britain, but becomes scarce after intense droughts. May-June, declining to October.
- ruficornis** Two sites in Caledonian pine forest. August.
- pseudosimilis** Widespread but very local on moist acid soils of heaths and moorland, usually only found by sweeping bush foliage. June-August.
- staegeriana** (ex. *similis*) Especially typical of woodland in the Rannoch area of Scotland. Also recorded in various other districts of Scotland but rare in northern England and also recorded from Denbigh. June-September, especially August.

## Genus RHYPHOLOPHUS

A close ally of *Ormosia* but often a bit larger and with a brownish body. Check for the extended vein  $A_2$ . Like *Ormosia*, fresh specimens have the wing membrane covered in fine soft hairs. *Rhypholophus* is only found in woods in late summer and autumn, being locally common.

1.	Top of thorax with a conspicuous median pair of almost parallel dark stripes. Wings with a white patch on membrane just beyond apex of R1. Anal lobe weakly developed. Male inner style shown.	 <p style="text-align: right;">varius</p>
-	Top of thorax with the median pair of dark stripes splayed apart in front so that there is room for a short true median stripe (sometimes the stripes are very weak; best view from above). Wings without a white patch on membrane just beyond apex of R1. Anal lobe strongly angled.	 <p style="text-align: right;">2</p>
2.	Thorax pattern strong, including a strong short median dark mark at very front of thorax. Femora at most faintly darkened at apex. Male inner style symmetrically forked. Female occiput without strong black bristles.	 <p style="text-align: right;">bifurcatus</p>
-	Thorax pattern weak; the median mark is very weak or absent. Femora normally strongly darkened at apex. The wings usually have a particularly yellow tinge. Male inner style asymmetrical, one fork extending into a long spur. Female occiput with some strong black bristles behind upper part of eye.	 <p style="text-align: right;">haemorroidalis</p>

**bifurcatus** A common species in calcareous woods. August - October.

**haemorroidalis** A very local species, usually on moist base-rich soils. The yellowish wings, dark-tipped femora and often larger size makes this a fairly distinct species. August - October.

**varius** A common species of moist and wet woods on acid soils, though under more neutral conditions it may occur mixed with *bifurcatus*. It tends to be a darker species than the other two. August - October.

## Genus TASIOCERA

Very small (wing length 2.3-3.5 mm), blackish or brown species, body and wing veins are conspicuously very hairy. The male has only one style on each coxite. This genus is very under-recorded due to the work necessary for species determination. Many more specimens of the rarer species are needed to be sure of their status in Britain. Please retain voucher specimens of *T. halesus* and *T. jenkinsoni*.

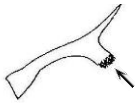



x100 magnification is necessary for the confident identification of most species in this genus. It is better to mount the genital apodeme on a slide in glycerol so that it can be rotated and viewed from different angles. The fragments that remain after dissection can be placed in a micro-vial in glycerol and pinned together with the labels to be available for future examination.



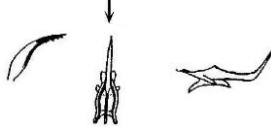


Coe (1951) only recognised one species, increased to 5 species by Freeman (1951). *Tasiocera collini* Freeman 1951 has now been recognized as *Tasiocera halesus* (Schmid 1949) and *T. muscula* (Schmid 1949) has been recognised as *T. fuscescens*, both by Starý 2002. Three European species have been included in the key since these may well be found in Britain.

The two commonest species may be found swarming about ferns and bluebells from April to mid-June, or by sweeping in woodland. Since they are so tiny, they are easily overlooked in the net. The scarcer species occur later, in July-August.

Identification of females must await material associated males. Some species have curious arrays of peculiar bristles on the hind segments of females. (present in fresh *fuscescens*, absent in *murina*).

### Key to male Tasiocera

1.	Style with a large blunt projection on one side.		jenkinsoni
-	Style with at most only minor projections.		2
2.	Style entirely pale yellowish. Smooth or with only a few hairs.		3
-	Style black, at least apically; one or more minute projections in some planes of view.		4
3.	Genital apodeme in side view parallel-sided rather S-shaped. Lower apodeme down-curved towards apex.		[exigua]
-	Lower apodeme in side view almost straight in distal two-thirds, black part tapering. Upper apodeme up-curved towards apex.		fuscescens

4.	Style strongly bifid at apex. 	[malickyiana]
-	Style not markedly bifid.	5
5.	Style long and slender, with a distinct conical tooth one third from apex and feather-like blade distally. Ventral apodeme fused at the tip, with slender apical spines in side view.	 halesus (ex-collini)
-	Styles and aedeagus not as above.	6
6.	Minute species (body length 2 mm). Genital apodeme in dorsal view tapered to a point. Ventral apodeme diagnostic, as shown.	 [minima]
-	Larger species, body length 2-3mm.	7
7.	Upper apodeme in side view with a strong notch on inside of sharp bend half way along. Styles rather blunt about apex in side view, with several small teeth.	 robusta
-	Apodeme in side view without the strong notch. Ventral apodeme blunt, club-shaped. Styles curved to a gradually tapering sharp point, with a few minute teeth on one edge near apex.	 murina

**fuscescens** (syn. *T. muscula*) Widespread in woodland over much of Britain, often with *murina* but overall not as frequent. April – June with peak in May.

**jenkinsoni** Four British records. The first and second were collected by F. Jenkinson in 1906 at Crowhurst, Sussex. Specimens also recorded from Rogate, Sussex, in 1974 (seepage carr with tussock sedge), and Monmouthshire in 1984. All records in August.

**halesus** This was recorded as *T. collini* on 25.7.1950, from Chippenham Fen, Suffolk. It was found in numbers on a poplar tree trunk by J.E. Collin. A male was collected from Ashberry Pastures NR, Yorks by I. Perry on 16.7.1996, and since then there has been one other record. June – July.

**murina** Widespread in woodland over much of Britain. Often common when sweeping ferns and in swarms by bluebells. April – June with peak in May.

**robusta** (ex. *laminata*) male 1.8.1944, Woodditton Wood, Cambs, J.E. Collin and since found widespread but scarce in woodland in England and Wales. May – June with peak in June

*exigua* Known from the Alps: it may easily be overlooked as *fuscescens*.

*malickyiana* Very distinctive bifurcate styles. Sardinia.

*minima* Like a smaller *murina*, N. Italy.