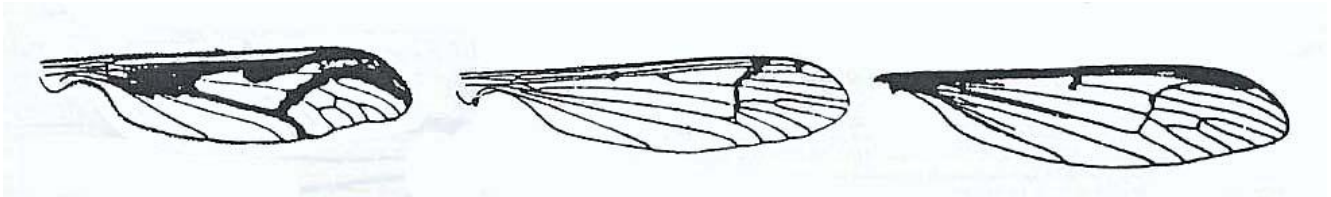
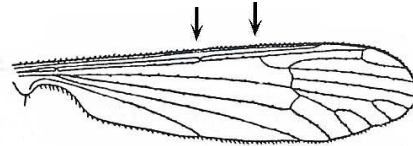


KEY TO HAIRY-EYED CRANEFLIES: PEDICIIDAE by ALAN STUBBS 1994
Revised by John Kramer 2016

Among craneflies the Pediciidae are unique in having pubescent eyes but a good light and magnification are needed to see these, especially in the smaller species. Fortunately this sub-family of short-palped craneflies (Limoniidae) is fairly easy to recognise in other ways.

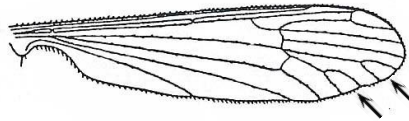
- When live they often hold the wings upright (like a butterfly at rest): in a number of species the abdomen seems too long.
- Vein Sc₂ is half way along the wing, usually well before the base of Rs (except *Pedicia rivosa*).



- Some have unique wing patterns, unusual venation or unusually slender wings.
- The genus *Dicranota* has an extra vein between R1 and R2.

When a discal cell is present it is very asymmetrical, except in *Tricyphona unicolor*

- Some of the more drab species have wings with characteristic broad wedge shaped posterior cells.



The genus *Ula* has the wing covered with hairs.

- Some have body colours such as yellow or black.
- The female ovipositor is normally upcurved (by no means confined to Pediciidae but the ovipositor is different in very many other craneflies).

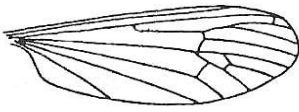
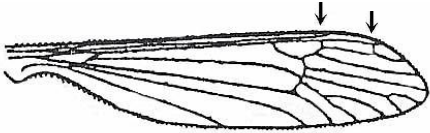
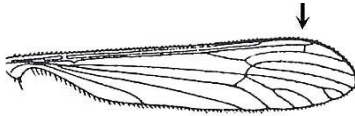
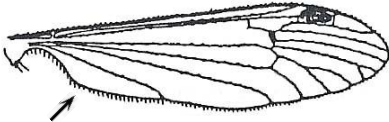
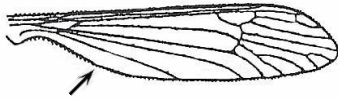



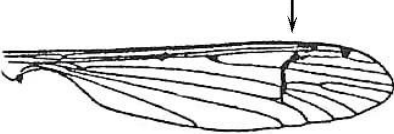
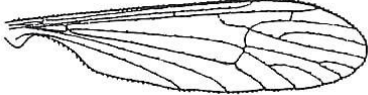
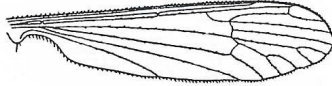
- Most species occur by streams and rivers where they can form a major element in the cranefly fauna. Some also occur in marshes and at seepages.
-
- The venation of some species is variable even to the extent that the discal cell may or may not be present.

CHECK LIST

Since the Royal Ent. Soc. Handbook (Coe, 1951) there have been three additions (*Dicranota gracilipes* and *Ula mixta* and *U. mollissima*) Also *Dicranota brevitarsis* was misidentified and in fact British material is *D. simulans*. There may be more *Dicranota* to find. Other changes since 1951 affected the genus *Tricyphona*, and two species, *lucidipennis* and *claripennis*, have been separated from *Tricyphona* into the sub-genus *Ludicia* of the genus *Dicranota*.

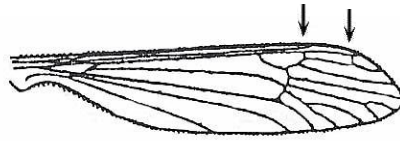
Key to Genera and Sub-Genera

1.	Wing very broad, entirely covered in dense hairs (macrotrichia).		Ula
-	Wing not especially broad, without hairs.		2
2.	Two cross-veins between R ₁ and R ₂ .		3
-	One cross-vein between R ₁ and R ₂ . (Discal cell present or absent)		4
3.	Stigma dark, r-m with dark mark (at least faintly so). Wing with better developed anal angle.		Dicranota s.g. Dicranota
-	Stigma faint, r-m without dark mark. Wing with virtually no anal angle.		Dicranota s.g. Paradicranota
4.	Wings with markings, even if faint. In doubtful cases body entirely yellow or antennae with scape and pedicel yellow.		5
-	Wings clear, not even stigma coloured.		7

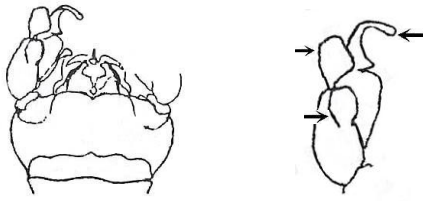
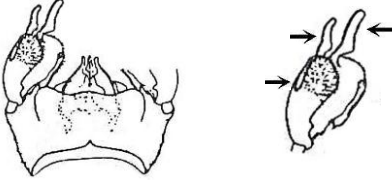
5.	Very large species with distinctive wing pattern (unique amongst craneflies).		Pedicia s.g. <i>Pedicia rivosa</i>
-	Without this pattern. Rs long.		6
6.	Body rusty orange brown or yellow.		Pedicia s.g. <i>Crunobia</i>
-	Body brown. Wing with dark bar one third from wing tip and some spots (rarely unmarked).		Pedicia s.g. <i>Amalopsis occulta</i>
7.	Body, and coxae, black. Wings never particularly narrow. Rs short. Antennae with 15 segments in total.		Tricyphona
-	Body and coxae partly yellow or all pale brown. Wings can be narrow. (Discal cell present or absent). Antennae with 13 or 17 segments.		8
8.	Coxae and underside of abdomen partly yellow. Antennae with 17 segments.		Dicranota s.g. <i>Ludicia</i>
-	Body and coxae pale brown. Antennae with 13 segments.		Dicranota s.g. <i>Rhapsidolabis</i>

Genus DICRANOTA

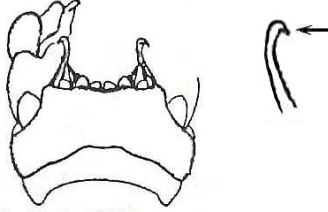
The paired cross-veins between R_1 and R_2 of *Dicranota* and *Paradicranota* are otherwise only found in some *Symplecta* (Chioneinae).

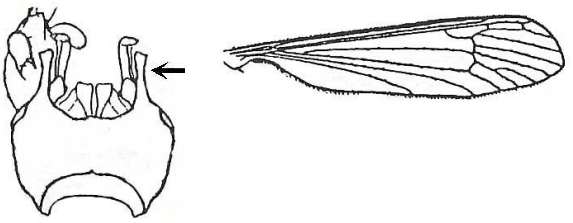

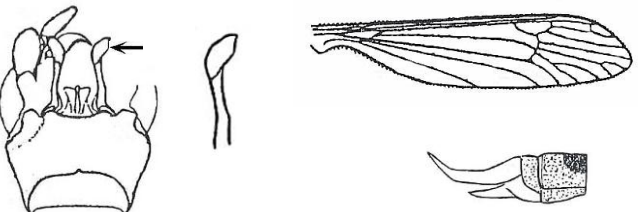
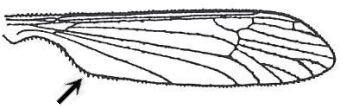
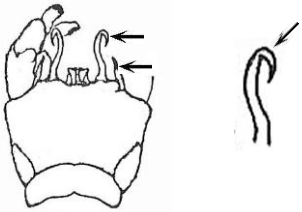



Sub-Genus DICRANOTA [Two r-cross-veins, stigma dark]

1.	r-m with weak dark mark, no spot at base of Rs. Male with thumb on coxite and finger-like outer style of similar size and appearance. Wing length 8-10mm.	 <p style="text-align: right;">bimaculata</p>
-	r-m with strong dark mark and spot at the base of Rs. Male with thumb on coxite large compared with slender outer style. (Inner style also slender so 2 apical slender processes). Wing length 6-9mm.	 <p style="text-align: right;">guerini</p>


Sub Genus PARADICRANOTA [Two r-cross-veins, stigma pale]

1.	A black, rather stouter bodied species, legs black except base of femora. Antennae with 10 or 11 segments. Paramere as shown. Wing vein Cu_1 thickly darkened. Wing length 4-6mm.	 <p style="text-align: right;">robusta</p>
-	Typical slender species, legs generally paler. Antennae with 13 segments. Cu_1 not much different from other veins.	

<p>2.</p> <p>-</p>	<p>Vein M_1 simple, hence only one wedge cell. (rarely absent in <i>gracilipes</i> which has a banded abdomen above and a narrow anal cell). Male tergite 9 with long blunt-tipped sub-lateral process. Wing length 7-8.5mm.</p>	 <p style="text-align: right;">pavida</p>
	<p>Wing cell M_1 present, hence two wedge-shaped cells.</p>	 <p style="text-align: right;">3</p>
<p>3.</p>	<p>Anal lobe narrow, equal to height of eye. Pleurae medium brown. Most tergites pale with basal dark spot dorsally (most obvious in fresh specimens). Male parameres with tips broadened. Wing length 8-10mm.</p>	 <p style="text-align: right;">gracilipes</p>
<p>-</p>	<p>Anal lobe much wider than height of eyes. Pleurae dark grey. Tergites dark brown. Male parameres slender pointed.</p>	 <p style="text-align: right;">4</p>
<p>4.</p>	<p>Coxae reddish yellow tinged. Male tergite 9 with fairly long pointed sub-lateral processes. Male paramere strongly hooked.</p> <p>Wing length 5.5-7mm.</p>	 <p style="text-align: right;">subtilis</p>
	<p>Coxae grey, not contrasting with pleurae. Male tergite 9 with minute sub-lateral processes. Male paramere rather straight, bent at tip. Wing length 5-7mm.</p>	 <p style="text-align: right;">simulans</p>

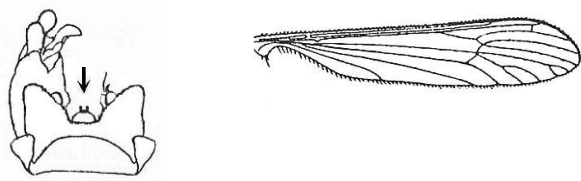
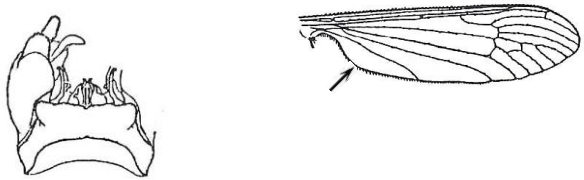
Genus DICRANOTA
 Sub-genus RHAPHIDOLABIS

Exceptionally drab brown, somewhat like *D. (P.) pavida* but with only one cross-vein connecting R1 with R2. There is more of an anal angle, somewhat as in the black bodied *Tricyphona* but having the very narrow wings of *Dicranota*.

	<p>Tergite 9 exceptionally large forward bulge in mid-line. Wing length 5-8mm</p>	 <p style="text-align: right;">exclusa</p>
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Genus DICRANOTA
 Sub-genus LUDICIA

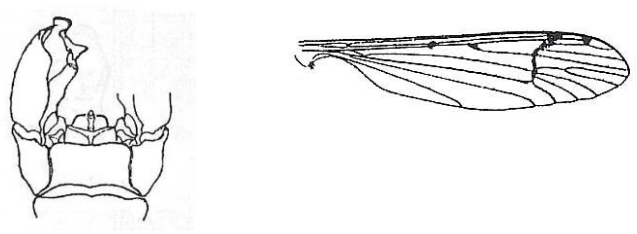
A single cross-vein but body very distinctive with yellowish coxae and yellow underside to the abdomen.

<p>1.</p>	<p>Wing very slender, anal angle very weak. Male tergite 9 with deep v-notch (very distinctive). wl 6.5-9.5mm. (The venation is very variable in this species, so care is necessary, especially with females. Discal cell may be present or absent.)</p>	 <p style="text-align: right;">claripennis</p>
<p>-</p>	<p>Wing much broader, with a far more obvious anal angle (also note width of wing behind A₂). Male tergite 9 without a notch. wl 10-12mm.</p>	 <p style="text-align: right;">lucidipennis</p>

Genus PEDICIA

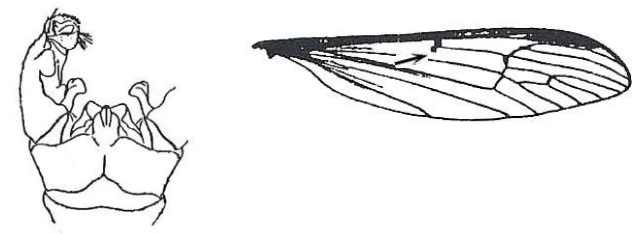
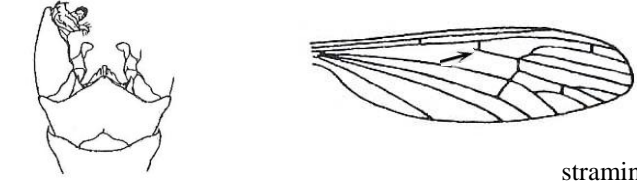
All very distinctive, either large, wings marked, or yellow bodied or a combination of these characters. The male genitalia have very different styles from other genera.

Sub-genus AMALOPSIS

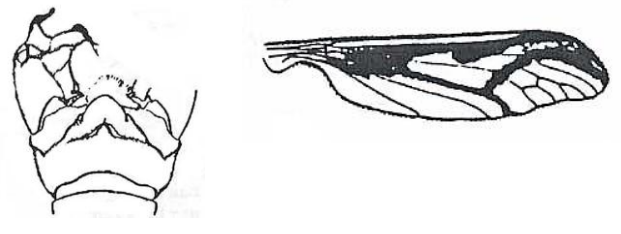
<p>1.</p>	<p>A moderately large species with a distinct wing pattern. Could be more of a problem in exceptional specimens without markings but the size, very long wedge shaped posterior cells and brown colour should be distinctive among hairy eyed crane flies. wl 11-15mm.</p>	 <p style="text-align: right;">occulta</p>
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Sub-genus CRUNOBIA

There are relatively few crane fly genera with orange or yellow species. *Crunobia* has the only two such Pedicines. The presence of a long discal cell, and an elbowed base (appendix) to vein Rs are important characters distinguishing the sub-genus from similarly coloured crane flies. The orange species is unusually large for a Pedicine.

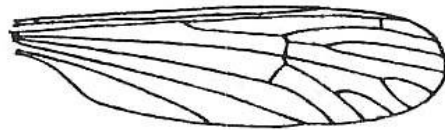
<p>1.</p>	<p>Large orange brown species (wing length 12-16mm). Head dark brown.</p>	 <p style="text-align: right;">littoralis</p>
	<p>Smaller pale yellow species (wing length 9-11mm). Head yellow with some grey dusting.</p>	 <p style="text-align: right;">straminea</p>

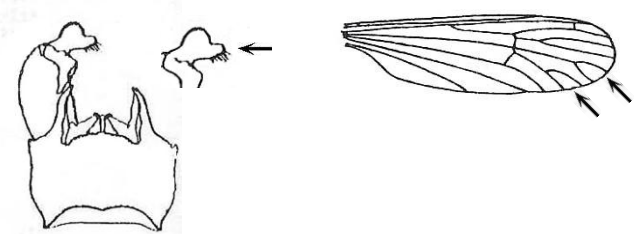

Sub-genus PEDICIA

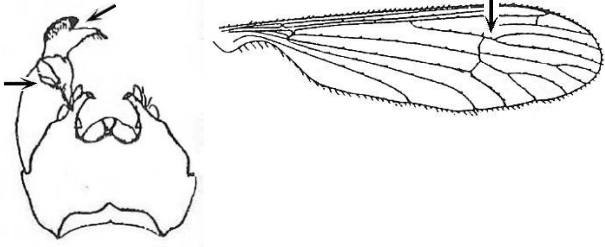
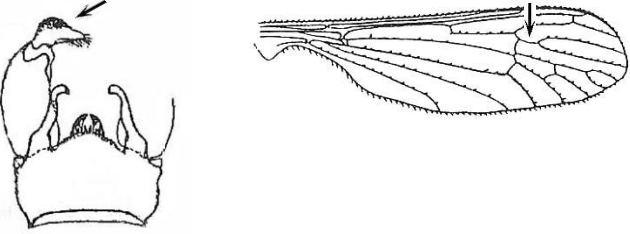
	<p>A very large species with a unique wing pattern. Its bold chocolate-brown markings and size may suggest <i>Tipula maxima</i> but the wing patterns are very different. Wing length 20-24mm.</p>	 <p style="text-align: right;">rivosana</p>
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Genus TRICYPHONA

Black bodied crane flies such as *Tricyphona* are only found in a few crane fly genera. The broadly triangular posterior marginal cells are easy distinguishing features and the discal cell is often missing.

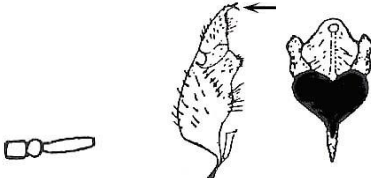
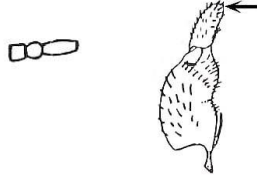


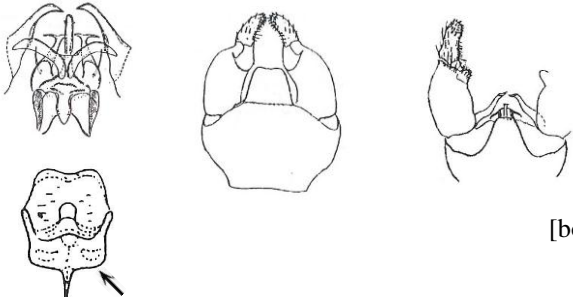
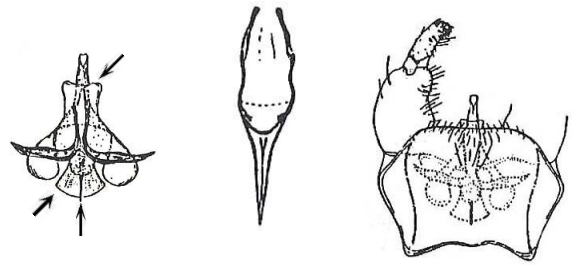
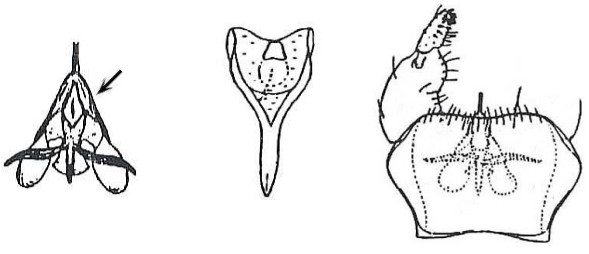
<p>1.</p>	<p>Thorax on top drab, with a vague broad darker median stripe. Femora usually yellow near base, contrasting black in apical half or more (unless teneral). Male style with a very short beak, apex blunt from all view points. Wing length 5-9.5mm.</p>	 <p style="text-align: right;">immaculata</p>
<p>-</p>	<p>Thorax above with a pair of grey median stripes separating submedian shining black stripes (distinct at least when viewed obliquely from in front). Femora more uniformly brown. Male style with a long pointed beak (as seen from some view points).</p>	 <p style="text-align: right;">2</p>

2.	R4+5 short making a short stalk to the second submarginal cell. Coxite with dorsal slit, style with crest more strongly raised. Wing length 5.5-7mm.	 <p style="text-align: right;">schummeli</p>
	Second submarginal cell longer stalked (as in immaculata). Coxite without dorsal slit, style with crest less raised. Discal cell sometimes absent. Wing length 7-8mm.	 <p style="text-align: right;">unicolor</p>

Genus ULA

This is the only crane-fly genus in the Pediciidae with the broad wing membranes entirely covered in hairs. The wings are exceptionally broad for Pediciidae. Until the early 1970's all *Ula* were referred to *sylvatica* but then *mollissima* (as *crassicauda*) was recognised. *Ula mixta* has been added to the British list and *Ula bolitophila*, a European species with speckled wings, is another possibility.

1.	Male style with a slender apex with cluster of 3-5 bristles, tip appearing hooked. Female with a black apodeme (very obvious inner plate visible by splaying apart the cerci and sternal valves). Female antennal segments elongate, seg. 3 much longer than scape + pedicel. Mid-flagellar segments with bristles as long as a segment. Wing length 6-10mm.	 <p style="text-align: right;">sylvatica</p>
-	Male style blunt. Female with a pale almost invisible apodeme. Female antennal segments short, seg. 3 scarcely longer than pedicel +scape. Mid-flagellar segments with bristles much longer than a segment. Wing length 6-10mm.	 <p style="text-align: right;">2</p>

2.	Wing spot over r-m. Male sternite 8 broadly extended in mid line. Female apodeme square-shouldered. (Check the genitalia if a spot is present.)	 <p>[bolitophila]</p>
-	Wing usually without a spot. Male sternite 8 without this projection. Female apodeme more wedge-shaped. (Check the genitalia if a small spot is present.)	
3.	Large aedeagus (arrows indicate critical areas). Female apodeme sharply pointed.	 <p>mixta</p>
-	Small aedeagus. Female apodeme blunter. Body usually pale brown.	 <p>mollissima</p>