Cranefly News

The Dipterists Forum Cranefly Recording Scheme

For Superfamily Tipuloidea & Families Ptychopteridae & Trichoceridae

Newsletter No 44 **Autumn 2025**

Editor: John Kramer

Photo 5. John Kramer

Editorial

Of course the news is of the record hot dry Summer and we must wonder at its effect on cranefly populations. Many craneflies are dependent on damp habitats for their successful development and are indicators of the hydrology of a location. Some of the most interesting papers I have read have been on this theme. For example, Paula Bateson's MSc thesis on the effect of grip (ditch) blocking on tipulid populations for Aberystwyth University. It would be useful for members to re-visit and monitor previous locations to record the effects of this drought and heatwave which should be clear by this time next year.

***Molophilus ater* Meigen 1804 discovered in Norwich. - Martin Greenland**

Photo 1.

With greatly reduced wings, *Molophilus ater* (Photo 1) is the only British cranefly where neither sex is capable of flight. In *British Craneflies* (Stubbs, A.E. 2021, p.298) Alan Stubbs describes it as 'a characteristic species of uplands and moorlands in the north and west of Britain;' and then comments, 'Some craneflies of wet moorland also occur in boggy ground in the New Forest, south-east England and West Norfolk, but apparently *ater* does not.' So to discover it at Norfolk Wildlife Trust's new urban nature reserve in Norwich was quite a surprise! Not that the habitat is new: Sweet Briar Marshes (Photo 2) is a relic of the wet meadows that once ran the length of the River Wensum and includes the SSSI where the species was found. 7 females and 3 males (including a mating pair) were swept (on 25/04/25 and 01/05/25) from discrete areas dominated by Lesser Pond-sedge *Carex acutiformis,* within a single 100m square of the floodplain, classified as wet grassland MG8a in the NVC survey Interestingly, earlier in April, another cranefly species with flightless females and a predominantly north/westerly distribution, scarce in East Anglia, *Idioptera pulchella*, had been discovered nearby on the site by Tim Hodge (pers comm).

Photo 2.

Although best known as an upland species, *M.ater* is recorded at lower altitudes: e.g. Keith Alexander has reported it in the UK from cliff top *Molinia* mire at c.70m (Alexander, 2005) and wet woodland at 27m (Alexander, 2012b). The latter is hardly typical habitat for the species, but reviewing the references in the Catalogue of the Craneflies of the World (CCW) reveals a bewildering variety of habitat descriptions, including blanket bog, open swampy areas around springs and brooks (Ujvarosi, 2005a; Ujvarosi and Poti, 2006), fens (Olsen and Andersen, 2021) and wet meadows; while in Finland it has been classified as a eurytopic, terrestrial species, 'very common in moist environments' (Salmela and Vartija, 2007; Salmela, 2008).

The species was studied by Malcolm Hadley for his PhD (Hadley 1966) at Moor House NNR, Upper Teesdale. (Representative altitude 533-625m. Summit 847m). Adult emergence dates on his sites were between 22 May and 22 June, varying with altitude and nature of the vegetation. He found that adults had a very concentrated emergence period (just over 2 weeks) and brief lifespan (daily mortality 80%). They wandered only as far as they needed to locate a mate and egg-laying into the top layer of peat followed immediately. Maximum mortality for immatures was at the egg / 1st instar stages. Larvae probably feed on partly-decomposed plant material and need to avoid both dessication and oxygen-starvation: Hadley recorded them mostly in the top 3cm of peat, although they could go deeper (particularly the over-wintering 4th instar) prior to pupation nearer the surface. He found the highest densities on peaty areas dominated by Heath Rush *Juncus squarrosus*; then amongst sedges *Carex* or Hare's-tail Cottongrass *Eriophorum vaginatum*. The lowest densities were on blanket bog; with no larvae recorded from samples taken from bare peat, limestone grassland, or well-leached mineral soils. Larvae remained aggregated throughout their development, with no evidence of dispersal.

The prospects for *M.ater* at it's only known Norfolk site don't look good: an apparently small, isolated population of a species with no powers of dispersal. With the very dry 2025 spring, females will have been laying into unpromisingly dry ground. Nevertheless, the species must have a degree of tenacity to have held on there so far – presumably when its habitat was more extensive, it was as well. And it seems likely, given the short, relatively early flight period, that further lowland populations remain undetected: something worth looking out for.

Acknowledgements
Thank you to Alan Stubbs for his comments on the find; and to John Kramer for confirming the identification.

References
Hadley, MJ 1966 Biological studies on *Molophilus ater* Meigen: (Diptera : Tipulidae), Durham theses, Durham University. http://etheses.dur.ac.uk/8570/1/8570_5501.pdf
Other references can be found in:-
Oosterbroek, P 2025 Catalogue of the Craneflies of the World. (CCW) https://ccw.naturalis.nl
Martin Greenland

Identification of *Molophilus ater*. John Kramer
Martin was good enough to send me a male and a female specimen of *M. ater*, captured on the Sweet Briar Marshes Nature Reserve. Specimens identified from an unusual habitat may turn out to be a new species and so are always well worth a closer examination when possible.

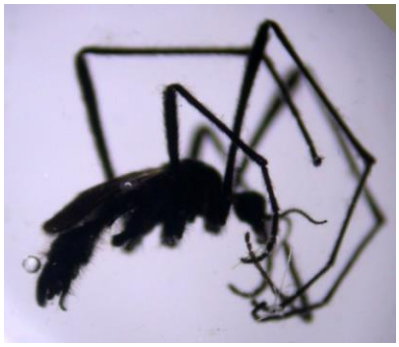


Photo 3. *M. ater* male

Photo 4. *M. ater* female

Photo 5. *M.ater.* Male genitalia, lateral oblique view

Photo 6. *M.ater.* Male genitalia, lateral view

The wings of both male and female specimens are present but abbreviated (subapterous). Due to the heavy black chitinisation it is difficult to make out all of the male genital structures in detail but the structures that can be seen conform to those found in *M. ater*.

In *M. ater* both coxites are extended to form a protective hood over the styles. In addition, there are ventral projections of the coxite and both of these features are absent in *M. niger.*

While clearing the male specimen in KOH solution the dissecting miropin became wedged between the coxites and while attempting to free the tiny specimen, alas, it sprang off the pin and disappeared !! Better photos could be produced with more thorough clearing and the use of stacking software.

John Kramer

The larvae of *Tipula* - Key to the larvae of subgenus *Pterelashisus* - Alan Stubbs.

[The key is largely based on a posterior view of the terminal larval segment of final instar larvae. There are a pair of dark spiracles, resembling 'eyes', surrounded by 4 lobes. Ventral to this is the anus surrounded by fleshy protuberances, termed anal papillae. Ed]

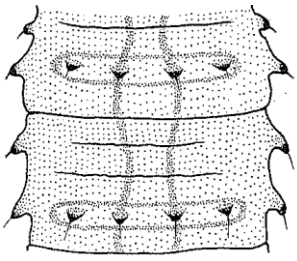
As with the larvae of *Nephrotoma* and *Nigrotipula,* the dorsal lobes of the larvae of the subgenus *Pterelashisus* are about half the length of the lateral lobes, with the exception of *irrorata*, a strictly saproxyic species.

The dorsal lobes, or just beneath them, have a distinct dark mark and a dark streak at the base of the lateral lobes in some species. Larvae of *Nephrotoma* and *Nigrotipula* lack these markings on the dorsal lobes and any spots beneath are minor.

There are eight British species in the subgenus: only *mutila* is undescribed as a larva. All are terrestrial, without anal papillae.
irrorata Macquart, 1826. Described. Strictly saproxylic (hence treated in separate saproxylic key; common as larvae.
luridorostris Schummel, 1833. Described. Considered arboreal, larvae in moss in western Atlantic oak woods. Rare.
mutila Walgren, 1905. Undescribed. Some continental literature saproxylic, but woodland moss wet habitat also reported. New Forest woodland, possibly extinct (Mark Ash, with veteran trees in wood pasture, plus wet areas. An unusually small species for the genus.
pabulina Meigen, 1818. Described. Limestone woodland. Local.
pseudovariipennis Czizek, 1912. Described. Woodland. Local, mainly southern
submarmorata Schummel, 1833. Described. Woodland. Declined in drought-prone districts.
truncorum Meigen, 1830.; Described. Woodland. Scarce.
varipennis Meigen, 1818. Described. Woodland. Declined in drought-prone districts.

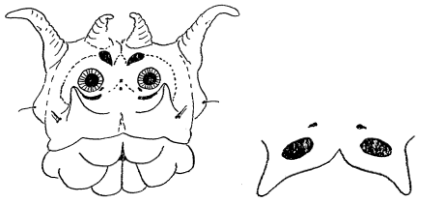
Key to larvae of Tipula (Pterelashisus)

1a. Most body segments with raised pimples, each bearing a spine on the dorsal surface. The lateral protuberances are more thorn-like. Dorsal lobes curved much shorter than lateral lobes. (former subgenus *Oreomyza*). Go to 2


1a

1b. Most body segments without raised pimples, slender bristles only. Dorsal lobes not curved much shorter than lateral lobes or less contrast. Go to 3

2a. Dorsal lobes short, incurved. Ventral lobes apically rather narrowly extended, spots oval. *pabulina*

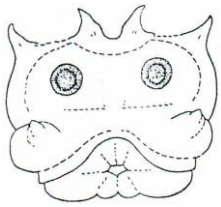

2a


2b

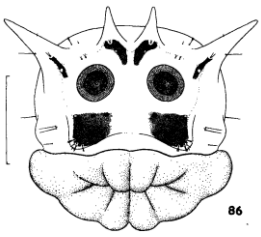
2a. *T. pabulina* 2b. *T. truncorum*

2b. Dorsal lobes much longer, outward curved. Ventral lobe apically bluntly extended, spots more elongate, often comma-shape. *truncorum*

3a. Dorsal and lateral lobes equally short, curved, bearing a minute dot (according to illustration). *luridorostris*



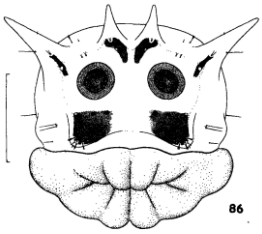
3a



3b

3b. Lateral and dorsal lobes straight, rather narrow. bearing a dark streak at the base of the lateral lobes and a prominent mark on or just below the spiracles. Go to 4

4a. Ventral lobe with large dark mark below spiracles, inwardly rather square sided. 5



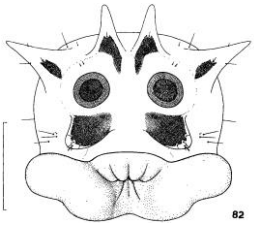
4a

4b

4b. Ventral lobe with smaller dark mark. 6

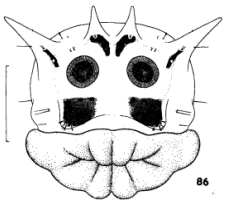
5a. Lateral and dorsal of fairly similar size; lateral lobes with short basal streak, dorsal lobes with marking extending onto base of lobes. [Saproxylic]

irrorata

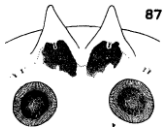


5a

5b



var.



5b. Lateral lobes about twice as long as dorsal lobes; lateral lobes with longer, thinner basal streak, dorsal lobes with marking scarcely extending onto base of lobes.

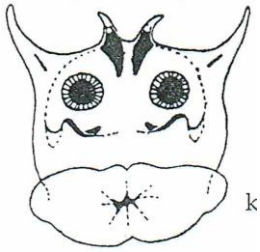
submarmorata

6a. Ventral lobes with a half moon dark patch + 2 dark spots.

varipennis

6a

6b



6b. Ventral lobes with broad, inwardly rounded dark patch.

pseudovariipennis

Main references

Brindle, A. 1959d. Notes on the larvae of the British Tipulinae (Dipt., Tipulidae). Part 5. The larvae of *Tipula pabulina* Mg., and *T. truncorum* Mg. *Entomologists Monthly Magazine* 95: 64-65.

Chiswell, J.R. 1956. A taxonomic account of the last instar larvae of some British Tipulinae (Diptera: Tipulidae). *Transactions of the Royal Entomological Society of London* 108: 409-484. Pdf
Podeniene, V. 203a. Morphology and ecology of the last instar larvae of the crane flies (Diptera, Tipulomorpha) of Lithuania. Doctoral dissertation, Vilnius University, Biomedical sciences, Zoology:1-295 (In Lithuanian).
Alan Stubbs

Thanks to the contributors. The next copy deadline for the Spring 2026 issue (#25) will be Dec 31st