

Cranefly Recording Scheme Newsletter

Newsletter 20

Spring 2010

John Kramer



Notices:

Thanks to Björn Beckmann and Stuart Ball, Alan's draft **keys to Craneflies** are now available as down-loadable pdfs on the Dipterists Forum website:

<http://www.dipteristsforum.org.uk/t464-Draft-keys-Craneflies.html>.

Any feedback about any difficulties with these keys would be gratefully received so that modifications can be made where appropriate. Note that they were designed for use by amateurs using a hand lens. Technical terms and optically obscure features should be avoided where possible.

A new edition of the **cranefly record card** is also available and hopefully active recorders will already have received some in preparation for the new season. Other members can apply to me, or download their own copy from the website. Regarding the names used on the Record Card, please note that *Neolimnomyia* sub-genus *Brachylimnophila* has now been reallocated to the genus *Dicranophragma*. (See #18). For questions about the different forms of the species *Neolimnomyia nemoralis* (now *Dicranophragma nemoralis*) and *Dicranomyia mitis*, see Alan's keys, and the note below.

The Cranefly RS is still actively seeking data, and a **distribution map** for each species is available on the NBN Gateway. (www.searchnbn.net) Hopefully, after a pause, the Book '**British Craneflies**' will begin to move forward once again, and a publication date in Autumn 2011 is a possibility. Again, anyone with suitable **photographs** of species which they would be happy to have published in the book, should send them to either Alan Stubbs, or John Kramer.

The original intention was to publish atlases about two years after the book. These would contain, for each species of crane fly, a distribution map, a phenology chart and ecological notes. We are still collecting **your records** and so far 110,000 crane fly records have been received by the Biological Records Centre. Please don't forget to include the grid references of sites.

FIELD WORK REPORTS

Tipula gimmerthali Lackschewitz in Cumbria – Steve Hewitt

This account is based on a note published in the *Carlisle Naturalist* (Hewitt, 2009).

On 4th October this year I was on Little Fell (NY7821) in the Cumbrian north Pennines with a botanist friend, Jeremy Roberts, who was surveying populations of Yellow Marsh Saxifrage (*Saxifraga hirculus*) as part of a wider survey for Natural England. This

plant requires upland base-rich flushes and the north Pennines are a stronghold of its British distribution. Whilst searching one such flush for the plant we noticed large numbers of vestigial-winged female crane flies, accompanied by fully-winged males. I collected a couple of examples of each sex to take home and later identified these specimens as *Tipula gimmerthali*. This Nationally Rare (RDB3) species is mainly recorded from the Scottish mountains. The only previously published English location for this species is Moor House NNR in the north Pennines, where it was reported by Coulson (1959), but has apparently not been recorded since 1979 (Falk, 1991). This montane insect is said to be restricted to base-rich flushes above 300m a.s.l. and adults occur during October - possibly accounting in part for the paucity of records for the species.

Spurred by this information, I visited another Yellow Marsh Saxifrage site at Knock Ore Gill on 11th October and then walked south over Knock Fell and Dufton Fell. Short-winged female crane flies were noted and sampled together with associated males, at base-rich flushes and also on turf in limestone pits and sinkholes. Later examination revealed two species had been collected: *T. gimmerthali* was recorded from base-rich flushes at Knock Ore Gill (NY7130) and Dufton Fell (NY7529), whilst males and females of the widespread *T. pagana* were collected from turf in limestone pits and sinkholes on west Knock Fell (NY7230) and Dufton Fell (NY7430). *T. pagana* males were also frequently encountered on intervening blanket bog across the area.

T. gimmerthali and *T. pagana* are best separated on microscopic characters of the genitalia. However there are some field characters which, with familiarity, can be a useful guide to identification: Whilst the females of both these species have vestigial wings, those of *T. gimmerthali* appear generally even more stunted than in *T. pagana*, with the more closely approximated veins in the less-expanded wings of female *T. gimmerthali* making them appear darker as well. Perhaps most obviously, both sexes of *T. gimmerthali* usually have obvious dark stripes on the mesonotum which are generally less prominent in *T. pagana*.

Encouraged by these finds in the Pennines, I wondered if *T. gimmerthali* might also occur in the Lakeland fells. On 13th October I visited Brown Cove on Helvellyn where some of the finest base-rich crags and flushes in the Lake District are found. *T. pagana* was again common and widespread and I was pleased to also find numbers of *T. gimmerthali* on the mossy cascades of the beck below the Brown Cove Tarn (NY3316) and more frequently on and around the mossy stream and flushes draining from the base-rich crags and mine dumps at the head of the cove (NY3215).

Meanwhile, in the course of his continuing his botanical studies in the Pennines, Jeremy Roberts collected further examples of *T. gimmerthali* from base-rich springs and flushes at NY7132 on east

Great Dun Fell and NY7130 on west Knock Fell on 12th October. He also obtained voucher specimens of this species from a base-rich flush on the Bullman Hills (NY7038) on 15th October.

These records establish that *T. gimmerthali* is widely scattered but very localised in the north Pennines and support its stated requirement for high quality base-rich flushes. The discovery of the species on Helvellyn in the Lake District represents a notable extension of its known range in England.

Voucher material is deposited in the collections of Tullie House Museum.

References

- Coulson, J.C. (1959) Observations on the Tipulidae (Diptera) of the Moorhouse Nature Reserve, Westmorland. *Trans. Roy. Ent. Soc. London*, Vol.3, part 7.
- Falk, S.J. (1991) A review of the scarce and threatened flies of Great Britain (Part 1). *Research and survey in nature conservation*, No. 39. JNCC, Peterborough.
- Hewitt, S. (2009) The crane-fly *Tipula gimmerthali* Lackschewitz new to the Lake District, with some additional records for the north Pennines, *Carlisle Naturalist* 17 (2), 44-45.

Stephen Hewitt, Tullie House Museum, Carlisle

Future Fieldwork

Our next Summer field meeting will be held from 12-19 June 2010, based at Stackpole, near the coast of Pembrokeshire (G.R. SR984964). This south-west corner of Wales is an interesting area, but a good reason for going there is that this area is under-recorded. There are plenty of good sites on the Tenby Peninsular and within range so it will be interesting to see what they yield. Novices please note that there will be plenty of experienced dipterists around to help you. (See the Bulletin and Website for booking details.)

Some Interesting Records

Phylidorea bicolor.

This species is included in the draft keys, placed there in the hope that it might be an additional British species. It has been found at one site in Cumbria, (John Parker) and two sites in NW Suffolk, (Ivan Perry). The common feature is that the habitat is clay woodland, rather than bog as in the closely similar *P. squalens*. Thus it would be good to hear of any other records, and that includes a prompt to check identification for any 'squalens' records from clay woodland (*squalens* is normally in open bog habitat but can occur on bog woodlands).

Alan Stubbs

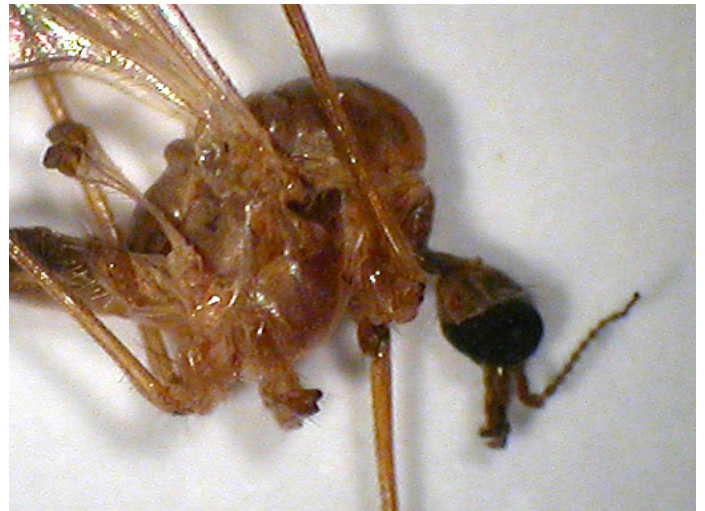
Dicranota robusta (Pediidae)

In the last Newsletter (#19) Geoff Hancock wrote about *Dicranota robusta* (Pediidae) in Scotland. Their usual larval habitat is in fast-flowing upland streams with low nutrient levels and a stony/shingle margin. They are also known, unsurprisingly, from the Pennines, the North York Moors, and from Dartmoor. Following this piece, Martin Drake drew my attention to a record of his from April 2008 when he collected a male specimen of *D. robusta* on the edge of the Mendips, North Somerset. The habitat was unusually by a calcareous stream, and at about 175m altitude, so not upland, and in nutrient-rich water. This is an early Spring species, and these kinds of limestone stream habitat would be worth checking. Geoff described turning over stones at the stream margins to find them sheltering beneath, so this method is worth a try, especially in cold/windy weather.

Martin Drake's records for 2009 contain many interesting Notable and RDB species. East Norfolk fens yielded *Cheilotrichia imbuta*, *Erioptera mejerei*, *Molophilus bihamatus*, *Pilaria scutellata*, *Dicranomyia danica*, *D. ventralis*, *Helius pallirostris* and *Paradelphomyia czizekiana*. This latter was added to the British list in 2002 and is a rare find. *Limnophila pictipennis* was found on West Sedgemoor (S. Somerset) and Smallhanger Waste in S. Devon yielded *Tipula yerburyi*, *Gonomyia conoviensis*, and *Eloeophila trimaculata*. His records of Cyndrotomidae include *Diogma glabrata* from Novers Common, Bristol, and *Phalacrocerca replicata* from Otmoor in Oxfordshire. And there are many more, so thank you for those, Martin.

The *Dicranomyia mitis* problem

F.W. Edwards in his 1938 paper, in addition to *D. mitis* Meigen 1830, described two other different forms of this species. These were, var *lutea* Lackschewitz 1928 and var *affinis* Schummel 1829. The problem is that the male genitalia of these forms, originally proposed as species, are very similar, and hence they were grouped as one species by Edwards, and other workers.



lutea – 17/6/07, By the Kinlochewe River. Scotland. Coll. John Kramer.

I have included pictures of what I have previously identified as extremes of the forms of *Dicranomyia mitis*, using the keys currently available to me. In all specimens there is only a stigma spot on the wing, and the darkened tip to the femora is dark to the tip (although the density is variable). The length and shape of some parts of the genitalia vary with the viewpoint. eg. In the form *affinis* below, each of the pair of the thin sickle-shaped (dorsal) dististyle are the same shape, though the terminal up-curve on one of them is not visible.



D. affinis



D. lutea

It is interesting to note that Paul Lackschewitz who worked in Litau, Latvia, when it was part of the USSR, observed two forms of *D. mitis*, a spring form, which was larger and greyer, (*affinis*) and an autumn form which was smaller and yellow (*lutea*). However, he notes that due to intermediate forms (*mitis/lutea*), and the fact that both forms may fly together, strict separation is not always possible.



affinis – 19/6/07, Talladale. NG917704 Scotland. Coll. Mick Parker

In his key to the Limoniinae, (January 1998) and in the new checklist, Alan has again proposed that we use these as specific names. He separates them according to the colour of the sides of the thorax (pleura), and the relative lengths of the pair of spines on the dorsal dististyle. If we use Alan's key to try and separate the 'forms' named above, we can further test the hypothesis that these form are indeed different species in the UK. Are there constant differences? Do the different forms occupy different ecological niches? Do they interbreed to produce intermediate forms? Do the field work, use the key, identify your specimens and join the debate !!

Identification Problems - Look- Alikes

Alan begins his key to the genus *Tipula* (Feb 1996) by first dealing with the sub-genus *Acutipula*. This is justified because these species are large, distinctive and easy to identify, once you have seen them. However, until then, you may confuse *Tipula* (*Acutipula*) *vittata* with the smaller *Tipula* (*Lunatipula*) *vernalis*. The former is a species of wet woodland, while the latter is a grassland species, but both emerge in the Spring and both have wings with pale streaks along their length.



Tipula vittata wing



Tipula vernalis wing

To avoid confusion Alan stresses the fact that *T.vittata* has a black stripe on each side of its grey abdomen. To help identification I would add that its 'lookalike', *T. vernalis* has no lateral stripes but instead a thin dorsal line down the length of its abdomen. Also, whereas the wing length of *T. vittata* is around 19mm, that of *T. vernalis* is smaller at around 14mm, and a wing streak of *T. vittata* have a yellow tinge, whereas those of *T. vernalis* are white.

Museums Focus – The Natural History Museum, London

We had a very enjoyable Annual Meeting in November at the Natural History Museum, in London. The new Darwin Centre is an excellent resource, and, together with the collections, there is the Angela Marmont Centre. In the Centre there is a room where workshops can be held by amateur groups FREE !!!! That seems to me to be a wonderful facility, so if people near London want a **Cranefly Workshop**, for a day, just let me know. Bookings start in May, and I can see that the Centre will be in big demand by many clubs and societies near London. As soon as I get eight interested people I will try to make a Saturday booking during the winter period.

Information about the NHM collections is available on line, including lists of the rarer species, either in low numbers, or missing from a collection – so that dipterists can see what the Museum has and has not got. Any offers to fill these gaps are welcomed. A list will be posted on the Dipterists forum website in January and Erica M^cAlister would be pleased to hear from anyone with rarer species of Craneflies to offer to the NHM.

As an example, below are listed some species of Tipulidae which are in short supply in the collections and would be gratefully received.

Nephrotoma lunulicornis

Tipula alpina, *T. helvola*, *T. laetabilis*, *T. livida*, *T. peliostigma*, *T. selene*.

T. nodicornis,

T. luridorostris, *T. pabulina*, *T. truncorum*,

T. pseudovariipennis,

T. alpium, *T. cheethami*, *T. gimmerthali*,

T. grisescens, *T. holoptera*, *T. serrulifera*,

T. hortorum, *T. nubeculosa*,

T. coeruleascens.

The Next Copy Deadline is 20 June 2010

