Dipterists Forum
Cranefly Recording Scheme

CRANEFLY NEWS - #21 SPRING 2011

THE NEWSLETTER OF THE CRANEFLY RECORDING SCHEME
For Tipuloidea, Trichoceridae and Ptychopteridae

NOTICES

Cranefly Workshop, Angela Marmont Centre for UK Biodiversity,
Natural History Museum, London
led by John Kramer
Saturday Feb 12 and Sunday Feb 13th 2011. (no charge)
To book a place e.mail amc-booking@nhm.ac.uk

Saturday: A guided tour of Alan Stubbs' Cranefly Keys.
Sunday: Identification Workshop. Specimens provided. Bring your own if you wish.
Each day is separate so come for just one day if you want to.

FIELD WORK

Cranefly records from Tiree and Coll, 20-26 June 2010, including a second Scottish site for *Erioptera nielseni* de Meijere (Diptera, Limoniidae)

E. Geoffrey Hancock, Hunterian Museum (Zoology), University of Glasgow, G12 8QQ

As part of entomological field work with colleagues some effort was directed at recording craneflies (Tipulidae and Limoniidae plus Ptychopteridae and Anisopodidae) during a brief visit to Tiree and Coll, two islands of the Ebudes, or Southern Inner Hebrides.
For details of this enterprise see <http://blogs.nationalinsectweek.co.uk/jeannerobinson/>
There appear to be no previous published records of craneflies from these islands. It proved to be difficult to generate a range of species presence across the available habitat. There is no natural tree cover on these islands so there was an expected lack of woodland associates. In addition, the extremely dry weather prior to the visit seems to have affected both numbers of individuals and species giving a total of only 21 from both islands. The paucity of the anisopodid *Sylvicola punctata*, for example, was surprising given the stocking levels of cattle and sheep over the islands. Only one adult was seen although larvae were present in a few cow pats. Neither the generally ubiquitous *Tricyphona immaculata* (Meigen) nor any other pediciid species were collected. The most abundant craneflies were the common saltmarsh limoniid, *Symplecta stictica* (Meigen) and the sand dune tipulid, *Nephrotoma*

submaculosa Edwards. The one interesting record was the RDB Notable (Falk, 1991) *Erioptera nielseni* de Meijere which was found around the Ballyhaugh Loch at the Hebridean Centre, Coll. Here it was common around the water margins and was found in both the light trap and malaise trap as well as in the sweep net.

From the Catalogue of the Craneflies of the World website http://ip30.eti.uva.nl/ccw/ a number of entries for *E. nielseni* indicate that it is associated with swampy margins of fens, often with an element of base richness. In Scandinavia it is regarded as part of the tyrphobiont fauna, defined as cold-adapted boreal and subarctic species, and associated weakly with bogs near the subarctic tree line (Salmela & Autio, 2007). Dr Garth Foster measured all the water bodies for acidity as part of his work on water beetles and Ballyhaugh proved to be neutral at pH7. In being adjacent to local machair habitat, where the base-rich grassland soil is formed by wind-blown shell sand, there may have been localised patches where the pH was slightly higher. Perhaps such a condition is not absolutely crucial for larval development. This is the second Scottish locality after an earlier record from Perthshire. *E. neilseni* was found at both Hare Myre and Stormont, two adjacent lochs near Blairgowrie on the same occasion, 8th July 1977 (information from NBN Gateway).

Ballyhaugh Loch – Coll Photo: E.G. Hancock

The species recorded were

Tipulidae
Nephrotoma submaculosa, Coll & Tiree
Prionocera turcica, Coll
Tipula alpium, Coll
T. oleracea, Coll & Tiree
T. paludosa, Coll (emerged later from larvae)
T. rufina, Coll

Limoniidae
Limonia trivittata, Coll
Dicranomyia autumnalis, Coll & Tiree
D. dumetorum, Coll
D. modesta, Coll & Tiree
Helius longirostris, Coll
Phylidorea ferruginea, Coll & Tiree
Ph. meigeni, Tiree
Pilaria scutellata. Coll & Tiree

P. discicollis, Coll
Pseudolimnophila lucorum, Coll
Gonomyia dentata, Coll
Erioptera nielseni, Coll
E. fuscipennis, Coll & Tiree
Erioconopa trivialis, Coll & Tiree
Symplecta stictica, Coll & Tiree
Ptychopteridae
Ptychoptera albimana, Coll & Tiree
Pt. scutellaris, Coll
Anisopodidae
Sylvicola punctata, Tiree

These were recorded from more than one 10Km squares; details have been forwarded to the Cranefly Recording Scheme. Coll may seem more diverse but no firm conclusions on the relative differences between the two islands can be made based on this brief visit.

Acknowledgments
The Blodwen Lloyd-Binns Fund of the Glasgow Natural History Society and Scottish Natural Heritage part-funded the work. Colleagues in the field were Darren Mann (Oxford University Museum), Garth Foster (Aquatic Coleoptera Conservation Trust) and Jeanne Robinson (Glasgow Museums) who also maintained the blog for National Insect Week covering this period.

References
Falk, S. 1991. A review of the scarce and threatened flies of Great Britain (Part 1). *Research and Survey in Nature Conservation* **39**: 1-194 (Nature Conservancy Council, Peterborough).
Salmela, J. & Autio, O. 2007. Semiaquatic flies of Kivineva mire, middle boreal Finland, and redescription of *Cylindrotoma borealis* Peus, 1952 stat. n. (Diptera, Nematocera). *International Journal of Dipterological Research* **18**: 47-55.

The Dipterists Forum Summer Field Meeting based at the Stackpole Centre, Pembrokeshire (SR974956, VC 45)

Plenty of good sites were available, either on the Stackpole Estate, or elsewhere on the Pembroke peninsular, and about 60 species of craneflies were recorded.

Close by the Centre are the three arms of the man-made Bosherston Lakes which lie in limestone valleys. The margins of the Eastern Arm, easily accessible from the Centre, provided marshland, reedbeds and some Salix Carr, giving a range of marsh species. On the northern shore, there was a good area of exposed mud from where Reeds had been cleared and Kevin Chuter recorded 3 specimens of *Trimicra pillipes* from here. Following a report from Mark Pavett of a Ctenophorine in the Stackpole Estate woodland, instead of lurking in my usual shaded damp habitats, I stationed myself by a sunlit bramble bush and was rewarded by a female *Ctenophora pectinicornis*, which settled on the leaves.

Woodland streams were explored at Canaston Wood, and Shrubby Bottom NR near East Trewent. At Canaston Wood a good list of woodland/stream species were obtained which included *Dolichopeza albipes, Molophilus flavus and M. bifida*, along with *Dicranota pavida, D. bimaculata*, and *Pedicia (Ludicia) claripennis* from the stream margin. At Shrubby Bottom NR records included, *Thaumastoptera calceata, Ilisia occocata* and *Limonia trivittata. Lipsothrix remota* and *Lipsothrix nervosa* were found at both of these sites.

Another noteworthy habitat was at Blackpool Mill, where a backwater of the Eastern Cleddau River provided a good range of species which included *Lipsothrix nervosa*, and *Gonomyia lucidula.* On or near the coast, there was *Geranomyia unicolor*, and *Molophilus pleuralis* was recorded at the Dune Slack Lake at Freshwater West.

John Kramer

***Dictenidia bimaculata* (L.) in Northern Ireland – K.N.A. Alexander**

This large and dramatic cranefly is only known in Ireland from Counties Cavan, Offaly, Wicklow and Wexford (O'Connor & Speight, 1987). The best documented of the few earlier Irish records are from undisturbed woodlands, with rearing records from decaying birch and alder stumps and trunks. The Irish records are also all from eastern counties and therefore fit well with the British experience of it favouring wet woodland in eastern England (Stubbs, 1992). It, however, develops in the decaying heartwood of large open-grown broad-leaved trees in ancient wood pasture type situations in the more humid west of Britain (Alexander, 2003). Although I have found it but once in the Irish Republic despite many visits (reared from a pupa found in decaying oak in a mature oak woodland in Glenmalur, Co Wicklow, T1090, 13.vi.1993), I found two large populations in historic parklands in Northern Ireland during 2006.

The 2006 work was a parkland scoping study carried out on behalf of the Environment & Heritage Service, and involved a series of visits to each of six historic parklands in five counties. Any cranefly larvae and pupae found in decaying wood were retained for rearing, and two sites produced quite a number: Baronscourt Park, Co Tyrone, H3682 (in beech and oak), and the Great Deer Park, Glenarm, Co Antrim, D2911 (in oak). *Dictenidia bimaculata* emerged from all of them! It had never been found in N Ireland previously, and yet the Glenarm site is an Area of Special Scientific Interest and an Ulster Wildlife Trust nature reserve. Baronscourt is a private estate and so an overlooked population of a large and distinctive insect is much less surprising there. Adult *D. bimaculata* were later seen active in both sites and further specimens were taken in flight interception traps at both sites. This is an exciting addition to the insect fauna of Northern Ireland.

References

Alexander, K.N.A., 2003. Some records of *Dictenidia bimaculata* (Linnaeus) (Diptera, Tipulidae) from western Britain. *Dipterists Digest* **10**: 106.

O'Connor, J.P. & Speight, M.C.D., 1987. *Macrosiphum albifrons, Dictenidia bimaculata, Callaspidia defonscolombei* and *Xyalaspis petiolata*: insects new to Ireland. *Irish Naturalists Journal* **22**: 199-201.

Stubbs, A.E. 1992. *Provisional atlas of the long-palped craneflies (Diptera: Tipulinae) of Britain and Ireland.* Huntingdon: Biological Records Centre.

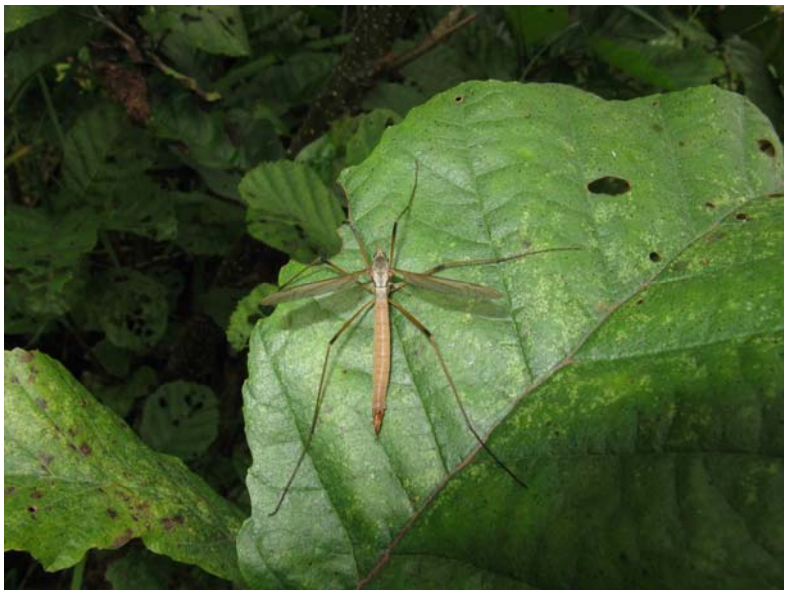
Craneflies in Leicestershire 2010

Visits were made to Grace Dieu Wood and Brook (SK4318 VC55) in the Spring and in the Autumn, as part of the Loughborough Naturalists' Survey of this site. Four species were added to the Leicestershire list, though none of these are rarities. *Ormosia lineata* and *Tasiocera murina*, were added due to my increased use of cranefly genitalia as a means of identification.The remaining two, *Tipula signata*, and *Pedicia claripennis*, were there because of the quality of the site, as well as, perhaps, to the late autumn visit. *Tipula luteipennis* was also found, Empingham Marshy Meadow being the only other VC55 site where this has been recorded. Both at Grace Dieu wood and at other Leicestershire sites there was a good Spring emergence of species after the severe winter, the *Acutipula* sub-genus being noticeably commoner than usual. Another notable record was made by Steve Woodward of a female *Ctenophora pectinicornis* from Uverscroft NR. John Kramer

Tipula peliostigma

Jon Cole has sent in a record of T. peliostigma which he found for the first time this year in a scrubby strip of woodland along a stream near St Neots, VC 31. He asked, 'What is its current status?' In the 1991 Review by Steven Falk it was listed as Notable, but this was based on records made before 1950. I have a feeling that it is now much rarer. Does anyone have any recent records of this species?

The Dog That Did Not Bark



T. paludosa f. Photo. D. Bryce

Sherlock Holmes famously used negative information in resolving the case of The Hound of the Baskervilles.

2010 was the year when the cranefly did not fly. Well, one in particular, *Tipula paludosa*. Normally it is a common and often abundant grassland species in late summer and autumn, as a walk through longish grass will reveal. In windy weather is can be found in hundreds in the shelter of a hedge or wall. Old literature treats it as almost one of natures biblical scourges, immense armies of leatherjacket larva spoiling lawns, bowling greens and crops by eating the roots of plants. And at night, if windows are left open on warm evenings, adults are attracted lights in rooms, with the express purpose of terrifying the squeamish. Yes, you know the one, even if you were reluctant to put a scientific name on it. Mind, to most people that is THE CRANEFLY, on the assumption that no other craneflies exist.

Since the era of being able to slosh chemicals on lawns and crops, it is now much rarer to see the severe damage claimed before the 1950s. The natural Achilles heel is that the eggs and small larvae are very prone to desiccation. Thus the autumn and winter climate, wet or dry, affects the level of mortality, and grassland which is normally very dry in the summer is seemingly unsuitable for even the larger larvae or pupae.

In Autumn 2010 the media did not bark. Most years I am phoned up to explain why there are so many craneflies all of a sudden, plagues of them, the public has seen nothing like it (they have forgotten that it is like this every autumn). This year, stony silence from the press. No *Tipula paludosa* in my garden, and trips into the countryside drew a blank, or caused major elation when one of these now rare insects was found.

I have been asking other entomologists of their experience. Having mentioned the absence, the widespread reaction is to agree they had not seen the species, or certainly not in the usual high numbers. The exception was the Brighton area; I wonder whether a few timely thunderstorms may have made the difference.

We have had drought before, and excessively hot summers. 2010 had a spring drought but the temperatures were not unduly high, and much of August was wet.

Some other craneflies did reasonably well but those were in the minority. The 1975/6 drought/high temperatures really hit most cranefly species hard and it took about 10 years for many of them to recover.

Some very hot years in the 1990s drastically reduced the numbers of species such as *Ormosia nodulosa* (remaining relatively scarce in woodland ever since) and the hot years of the early 2000s have had ongoing repercussions (not just for craneflies). An interesting species is *Tipula helvola* whose records were sparse and localised until the1990 and it then started to appear much more commonly and its recorded distribution extended northwards, in fact in the early 2000s I could go into a dry wood and find it within a few minutes. Yet in the cooler wet summers of the later 2000s it was again difficult to find on order.

Climate change never has been absent in Britain, it just that some swings have been more extreme. It is useful to monitor what is going on. Usually we record the dogs that do bark but is is also very relevant to record absences (looked and cannot find, or very few to be found) as well as presence (looked and found, or indeed didn't look but still found).

Alan Stubbs

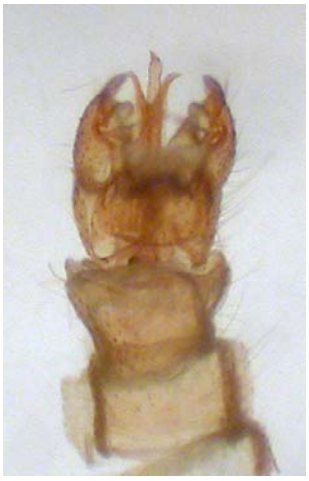
IDENTIFICATION PROBLEMS -
LOOK- ALIKES

***Ormosia pseudosimilis* Lundström 1912 v. *Ormosia ruficauda* Zetterstedt 1838**

Tjeder (Tjeder 1972) studied the type series of what was then called *Rhypholophus pseudosimilis* Lund. 1912 in the collection at Helsingfors, Finland. There were 6 specimens, 1 of which was female, 1 male with genitalia.absent, and 4 with male genitalia. Tjeder identified these six specimens as follows: *pseudosimilis* (1 designated lectotype, + 1 other specimen), *ruficauda* (2), *Ormosia murina* Lacks (?), and *Rhypholophus murinus* Goet. (now O.*ruficauda* Zett 1838)

So, even in the original type series there was confusion, but somehow a consensus has formed, perhaps through the distribution of types, and there is a common opinion expressed by Goetghebuer and Tonnoir 1920, de Meijere 1920, Edwards 1938, Tjeder 1972 and Savchenko 1982.

As Tjeder says, *Ormosia pseudosimilis* Lundström and *Ormosia ruficauda* Zetterstedt are closely similar yellowish species, but, Tjeder was clear, the males are distinguished by the structure of the aedeagus (penis). This, in *pseudosimilis*, is divided near the base into a dorsal and a forked ventral part.



Ormosia pseudosimilis
Photo: JK

Ormosia ruficauda
Photo: JK

The ventral part is branched some distance before the tip into two long branches to give a tripartite structure.

In *ruficauda* there is no similar branching of the penis.

This structure is described in Edwards 1938, and figured in Goetghebuer and Tonnoir 1920, de Meijere 1920, and Savchenko 1982. Other differences have also been described but the divided ventral part of the aedeagus is said to be the diagnostic difference.

The diagnostic characteristics used are as follows:

1. Forked ventral part to aedeagus.
2. Both species have a cleft dorsal dististyle well figured in Savchenko 1982.
3. Savchenko 1982 figures a forked projection from tergite 9 for *Ormosia pseudosimilis.*
4. The antennal segments and setae are said to differ (figured in Stubbs 2001, and Goetghebuer and Tonnoir 1920)
5. *Ormosia pseudosimilis* has a tuft of yellow setae projecting dorsally from tergite 9. (Stubbs 2001). It is possible that these are attached to the forked process and that they break off easily.

References:

1. Meijere, J.C.H. de 1920, Tijdschr. Ent. 63: 46-86
2. Edwards 1938, British Short-palped Craneflies. Trans. Soc. Br. Ent 5: 1-168
3. Goetghebuer, M. and Tonnoir, A. 1920, Catalogue Raisonné Bull Soc ent. Belg., 2:131-147
4. Lundström 1912 Acta Fauna Flora fenn., 36, No. 1
5. Stubbs, A.E. 2001. Test key to species with an open discal cell. Cranefly Recording Scheme
6. Savchenko, E.H. 1982 Fauna of Ukraine
7. Tjeder, B. 1972 Notul. ent., 52:79-80

John Kramer

Erioptera fusculenta and E.fuscipennis

E. fusculenta Photo JK

The descriptions of these species by Coe (1) are very similar. *E. fusculenta* is described as having a 'shoulder with a yellow spot' but 'thorax otherwise blackish-grey'. This word 'shoulder' was first used by Edwards (2) in his 1938 paper. *E.fuscipennis* is described in Coe as 'Thorax entirely blackish grey, without yellow markings'.

When these specimens are examined *E. fusculenta* has a significant amount of yellow round the sides of the prescutum. The body is dark coffee-brown.

Both species have a yellow pronotum, which could be regarded as the 'Shoulder'.

E. fuscipennis may also have some other small yellow markings on the pleura, though not on the sides of the prescutum.

E. fuscipennis Photo JK
(Genitalia of specimen to right.)

E. fuscipennis Photo JK

With care and the right angle of observation the genitalia of these two species are distinctly different

References:

1. Coe R.L., in Coe, Freeman & Mattingley, RES Handbooks, Vol. IX. Part 2
2. Edwards 1938, British Short-palped Craneflies. Trans. Soc. Br. Ent 5: 1-168
3. Stubbs, A.E. 2001. Test key to species with an open discal cell. Cranefly Recording Scheme.

Book Review

Zoosymposia 3. Crane-flies – history, taxonomy and ecology. Dedicated to the memories of outstanding entomologists Dr. Charles Paul Alexander (1889 – 1981), Dr. Bernhard Mannheims (1909 -1971) and Dr. Evgeiy Nikolaevich Savchenko (1909 – 1994). Ed. V. Lantsov. Magnolia Press, Aukland, New Zealand. December 2009. Hardback.

Available from Magnolia Press. e-mail: zoosymposia@mapress.com
http:/www.mapress.com/zoosymposia/

For all those interested in the Tipuloidea, this is a landmark publication. It includes biographies of the three dedicatees, with complete bibliographies for Savchenko and Mannheims, and papers on many contemporary aspects of this group of flies. Apart from the preface and the three biographical pieces, there are 22 papers in all. Their contents may be previewed and the abstracts read at the Magnolia Press website. (See above). The topics range widely from ecology and distribution to taxonomy, and since the interests of Alexander, Mannheims and Savchenko extended beyond the four families of the Tipuloidea, papers on Ptychopteridae, Trichoceridae and fossil groups are also included. Three new species are described, and two papers relate to fossil species. The geographical scope is world-wide with work from Russia, Finland, Japan and Taiwan, as well as a paper by Hancock, Hewitt, Godfrey and Mullin from the UK. Their work on the fine structure of the thoracic gills of *Lipsothrix*, will be familiar to some members of the Dipterists Forum.

For those who wish to purchase the complete Symposium, it is available by post from the New Zealand publishers (See website. NZD115, Hardback). Alternatively the separate papers may be obtained as downloads, with open access to seven of these. The rest may be purchased as pdfs for US$10 each or perhaps obtained from the authors.

John Kramer

Obituary - Paul Freeman
1916 – 2010

Paul Freeman, who died on 31st July this year aged 94, came from Essex and studied at Imperial College, London, where, after his first degree, he continued to do post-graduate research. His studies were interrupted by the war when he served in the Royal Artillery. After a brief time at Imperial College as a lecturer, he took a post in 1947 at the British Museum (Natural History) where he rose to become Keeper of Entomology. He retired in 1981.

The Royal Entomological Society Key to Nematoceran families Tipulidae to Chironomidae (Vol. IX, Part 2, 1950) was authored by R.L. Coe, Paul Freeman, and P.F. Mattingly. Paul Freeman, covered the families Trichoceridae, Anisopodidae, Ptychopteridae, Psychodidae, Dixidae and Chaoboridae in this volume. Freeman also wrote the RES keys to the Sciarid Flies, and, with R.P. Lane, the Bibionid and Scatopsid Keys. In 1951, he published a key to the British *Tasiocera* (Limoniidae).
In addition to this and much more, his work with the blood-sucking black flies of the Ethiopian Region (1953) was internationally important work and he described more than 500 new species of Diptera.

Many dipterists have reason to be grateful for his work.

John Kramer
(Information from the Obituary in The Guardian, 26th August 2010, written by Richard Lane)

The next Cranefly News will be published with the Autumn Bulletin of the Dipterists Forum. The copy deadline for the Newsletter is therefore July 15th 2011.