

# Sciomyzidae Recording Scheme

Newsletter 4

Autumn 2008



## Draft keys tested at BENHS Workshop

On Saturday 17 May 2008 fifteen dipterists convened at the BENHS premises at Dinton Pastures for a Sciomyzidae and Phaeomyiidae Identification Workshop. The aims were to identify adult Sciomyzidae they had previously collected and to test new draft identification keys to the British Phaeomyiidae and Sciomyzidae for a planned new handbook (both families are retained within the Recording Scheme following the transfer of the genus *Pelidnoptera* to its own family, the Phaeomyiidae). These new draft keys attempt to address some of the known problems with placing species to their correct genus and with identifying species in the larger genera such as *Pherbellia* and *Tetanocera*. At this stage the illustrations inserted alongside the key couplets are a mixture of new drawings (for wings) and published figures (most other body parts). The comments received from the workshop participants show that while some improvements have been achieved, there is the need for further refinement of the generic key to avoid the difficulties of variation and/or visibility of whether the anal vein reaches the wing margin and the presence/absence of the propleural bristle. The keys are now being modified in the light of the comments received (before being circulated more widely) and then the next stage is to prepare original illustrations for the keys and plates depicting all the male and female post-abdominal structures. Colour photographs of some live adult Phaeomyiidae and Sciomyzidae have also been taken this summer, with the intention of helping more dipterists to easily recognise these flies when alive in the field. Publication of a new identification guide should further boost interest in these already popular families and also increase the number of records submitted to the Recording Scheme.

As with many families of acalyptrates, Sciomyzidae include a mixture of species that can be readily identified on the basis of easily observed external characters (wing patterns, body colour, chaetotaxy etc.) with groups of very similar species that require dissection to ensure accurate identification. While the existing keys by Rivosecchi (1992, Italian species), Rozkošný (1984, Fennoscandian and Danish species; 1987, Palaearctic species) and Vala (1989) largely work very well, there are still significant problems noted with identifying to species isolated single females in genera such as *Pherbellia*, *Psacadina* and *Tetanocera*, as well as with separating certain genera (*Colobaea* from *Ditaeniella*/*Pherbellia* and also separating *Renocera* from *Tetanocera*, particularly when starting and in the absence of comparative material). If colour illustrations of example whole flies from each genus can be included in a future identification guide to the British species, this should help with recognising the genera and checking answers from using keys, while species identification will be improved by having genitalia figures available of both sexes of all species.

## Notable recent records

A *Pherbellia* species new to Ireland has been reported that has not been seen in Britain before. It is possible that other additional *Pherbellia* may yet be found in Britain, so it is certainly worthwhile targeting *Pherbellia* and carefully checking the male genitalia, particularly

of those smaller and externally similar *Pherbellia*, using the standard European publications (listed in the references below).

There is a report of a male *Tetanocera montana* from the Cotswolds in England following the discovery of the species in Ireland (Speight, 2007). This species is most reliably separated from *Tetanocera arrogans* by carefully checking the male genitalia, although it is probable that there will also be good identification characters in the female postabdomen (yet to be illustrated).

## References

- Rivosecchi, L. 1992.** Sciomyzidae. Fauna d'Italia. xi + 270pp. Edizione Calderini, Bologna. Keys to British species except *Colobaea pectoralis*, *Pteromicra angustipennis*, *P. glabricula*, *P. leucopeza*, *P. pectorosa*, *Pherbellia argyra*, *P. knutsoni*, *P. stackelbergi*, *P. stylifera*, *Antichaeta brevipennis*, *Renocera striata*, *Tetanocera freyi*, *T. montana*, *T. phyllophora*, *T. robusta*.
- Rozkošný, R. 1984.** The Sciomyzidae (Diptera) of Fennoscandia and Denmark. Fauna Entomologica Scandinavica 14: 1-224. Keys to all British species except *Pherbellia knutsoni*.
- Rozkošný, R. 1987.** A review of the Palaearctic Sciomyzidae (Diptera). University J.E. Purkyně, Brno. Keys to all Palaearctic species known at time of publication.
- Speight, M.C.D. 2007.** *Rhaphium nasutum* (Diptera: Dolichopodidae), *Pherbellia rozkosnyi* & *Tetanocera montana* (Dip.: Sciomyzidae), insects new to Ireland and *Geomyza balachowski* (sic) (Dip.: Opomyzidae), presence in Ireland confirmed. Entomologist's Record & Journal of Variation 119: 85-91. Adds *T. montana* new to Ireland from Co. Cork.
- Vala, J.-C. 1989.** Diptères Sciomyzidae Euro-Méditerranéens. Faune de France 72. 300pp + 9 plates. Fédération Française des Sociétés de Sciences Naturelles, Paris. Keys to all British species.

## The eyes have it....

Alan Stubbs has been using a new digital camera to photograph the appearance of eyes in freshly killed Sciomyzidae, recording distinctly-coloured horizontal eye stripes in some species. As with many other flies, the colouration and appearance of the compound eyes when alive or freshly killed differs greatly from those on specimens in collections (these stripes disappear quite soon after death). The possible function of these eye stripes (which are not found in all species of Sciomyzidae) remains unknown, but may possibly be linked to different spectral sensitivity of the stripes compared with the other ommatidia that make up the compound eye.

## Processing records for the Recording Scheme

My grateful thanks to all those who have sent in records to me this year; the BENHS workshop has also encouraged several participants to record more Sciomyzidae and currently records previously submitted to the Recording Scheme are being checked and processed so that the available data can be summarised in the species accounts for the forthcoming new identification guide and to prepare updated draft maps to generate feedback to recorders and others. If you have records to submit, then please get in touch before sending them to me. Paper records or digital data via E-mail attachments are equally welcome but it can save time to check with me first.

Ian McLean, 109 Miller Way, Brampton, Huntingdon, Cambridgeshire PE28 4TZ.  
01480 450554  
ianmclean@waitrose.com