

A Pictorial Guide to the Tephritidae of Britain and Ireland



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Introduction

The standard identification keys for the British Tephritidae or Gall Flies (Diptera) largely concentrate on wing pattern and the striking body patterns of many species are hardly mentioned. This guide presents detailed photographs of males and females to redress the balance and make the flies more readily identifiable in field or lab.

The photographs are taken from standard angles and highly enlarged to enable detailed comparison with what is seen under the hand lens or stereo microscope. The PDF is supplied at high resolution so that zooming in will reveal more detail on screen than is visible at a scale of “100%”.

The species are presented in alphabetical order. All the wild UK species (ie excluding those imported in fruit) are included, but many still await photography.

Equipment Used

The photographs are of anaesthetised or freshly-killed Tephritidae, posed on a glass microscope slide. Most were taken with a Canon 600D or 700D dSLR and Canon MP-E65 macro lens.

Canon Macro Twin Lite MT-24EX electronic flash was used for illumination. The specimens were surrounded by a diffuser cut from the base of a polystyrene foam drinking cup to provide even illumination. The backgrounds are light grey card.

Wings were photographed on a microscope slide against a white background with gentle shading provided by a paper tube. Some were mounted in fluid under a coverslip, but most were just in air.

The images are “stacked” to attain the necessary depth of field without compromising resolution. In this technique multiple photos are taken at different levels, and then digitally combined (“stacked”) using special software: in the present case Zerene Stacker (<http://zerenesystems.com/cms/stacker>). Camera motion and shutter was automated with a Cognisys StackShot rail (<https://www.cognisys-inc.com/products/stackshot/stackshot.php>).

Acknowledgements

I am very grateful for all the help and encouragement I received in my early days of stacking from Rik Littlefield, the author of Zerene Stacker.

Thanks are also due to Laurence Clemons for confirming some identifications.

Acanthiophilus helianthi (Rossi, 1794)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Acidia cognata (Wiedemann, 1817)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Acinia corniculata (Zetterstedt, 1819)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Anomoia purmunda (Harris, 1780)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Campiglossa absinthii (Fabricius, 1805)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Campiglossa argyrocephala (Loew, 1844)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Campiglossa grandinata (Rondani, 1870)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Campiglossa loeviana (Hendel, 1927)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Campiglossa malaris (Séguy, 1934)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Campiglossa misella (Loew, 1869)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Campiglossa plantaginis (Haliday, 1833)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Campiglossa producta (Loew, 1844)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Campiglossa solidaginis (White, 1986)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Chaetorellia jaceae (Robineau-Desvoidy, 1830)



Male: dorsal view

Female: dorsal view



Male: lateral view

Female: lateral view



Wing

Chaetorellia loricata (Rondani, 1870)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing



Female: aculeus

Chaetostomella cylindrica (Robineau-Desvoidy, 1830)



Male: dorsal view

Female: dorsal view



Male: lateral view

Female: lateral view



Male: head - lateral view



Wing

Chetostoma curvinerve Rondani, 1856

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Ceratitis capitata (Wiedemann, 1824)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Cornutrypeta spinifrons (Schroeder, 1913)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Cryptaciura rotundiventris (Fallén, 1814)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Dioxyna bidentis (Robineau-Desvoidy, 1830)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing



Female: head, lateral

Dithryca guttularis (Meigen, 1826)



Male: dorsal view

Female: dorsal view



Male: lateral view

Female: lateral view



Wing

Ensina sonchi (Linnaeus, 1767)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Euleia heraclei (Linnaeus, 1758)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Euphranta toxoneura (Loew, 1846)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Goniglossum wiedemanni (Meigen, 1826)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Merzomyia westermanni (Meigen, 1826)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Myopites apicatus Freidberg, 1980

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Myopites eximius Séguy, 1932



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing



Head: lateral view

Noeeta pupillata (Fallén, 1814)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing



Female head and thorax: lateral view

Orellia falcata (Scopoli, 1763)



Male: dorsal view



Female: dorsal view



Female: lateral view

Male: lateral view

Wing

Oxyana flavipennis (Loew, 1844)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Oxyyna nebulosa (Wiedemann, 1817)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Oxyna parietina (Linnaeus, 1758)



Male: dorsal view



Female: dorsal view



Female: lateral view

Male: lateral view



Wing

Philophylla caesio (Harris, 1780)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Platyparea discoidea (Fabricius, 1787)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Rhagoletis alternata (Fallén, 1814)



Female: dorsal view

Male: dorsal view



Female: lateral view

Male: lateral view



Wing

Rhagoletis meigenii (Loew, 1844)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Sphenella marginata (Fallén, 1814)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Stemonocera cornuta (Scopoli, 1772)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Tephritis bardanae (Schrank, 1803)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Tephritis cometa (Loew, 1840)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Tephritis conura (Loew, 1844)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Tephritis divisa Rondani, 1871



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Tephritis formosa (Loew, 1844)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Tephritis hyoscyami (Linnaeus, 1758)



Male: dorsal view



Female: dorsal view



Male: lateral view

Female: lateral view



Wing

Tephritis leontodontis (De Geer. 1776)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Tephritis matricariae (Loew, 1844)



Male: dorsal view



Female: dorsal view



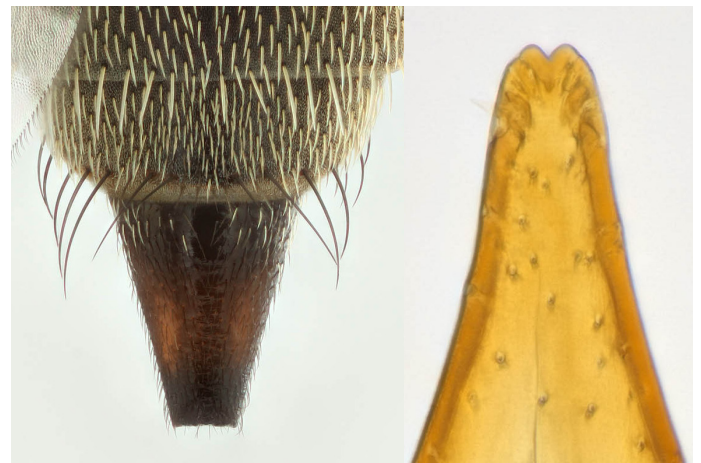
Male: lateral view



Female: lateral view



Wing



Female - ovipositor & aculeus tip

Tephritis neesii (Meigen, 1830)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing



Larval feeding signs
on Ox-eye Daisy (*Leucanthemum vulgare*)

Tephritis praecox (Loew, 1844)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Tephritis ruralis (Loew, 1844)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Tephritis vespertina (Loew, 1844)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Terellia ceratocera (Hendel, 1913)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Terellia colon (Meigen, 1826)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Male: wing



Female: wing

Terellia fuscicornis (Loew, 1844)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Terellia longicauda (Meigen, 1838)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Terellia plagiata (Dahlbom, 1850)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Terellia ruficauda (Fabricius, 1794)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Terellia serratulae (Linnaeus, 1758)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Male: setulae on apex of outer surstylus



Wing

Terellia tussilaginis (Fabricius, 1775)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Terellia vectensis (Collin, 1937)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Terellia winthemi (Meigen, 1826)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Trupanea amoena (von Frauenfeld, 1857)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Trupanea stellata (Fuessly, 1775)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Trypeta artemisiae (Fabricius, 1794)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Trypeta immaculata (Macquart, 1835)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Trypeta zoe Meigen, 1826

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Urophora cardui (Linnaeus, 1758)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing



Gall on Creeping Thistle (*Cirsium arvense*)

Urophora cuspidata (Meigen, 1826)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing



Female aculeus

Urophora jaceana (Hering, 1935)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing



Female aculeus

Urophora quadrifasciata (Meigen, 1826)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Urophora solstitialis (Linnaeus, 1758)



Female: dorsal view

Male: dorsal view



Female: lateral view

Male: lateral view



Wing



Female aculeus

Urophora spoliata (Haliday, 1838)

Male: dorsal view

Female: dorsal view

Male: lateral view

Female: lateral view

Wing

Urophora stylata (Fabricius, 1775)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing

Xyphosia miliaria (Schrank, 1781)



Male: dorsal view



Female: dorsal view



Male: lateral view



Female: lateral view



Wing