

Acknowledgments

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3. Op verzoek van Dhr. J. SCHEIRS leest Dhr. G. COULON de volgende mededeling.

Notes on Belgian Tephritidae (Diptera): *Tephritis cometa* (LOEW, 1840) new to the Belgian fauna

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Abstract

Records of fifteen Tephritid species from Belgium as well as additional host plants are given. Tephritis cometa is new from Belgium. T. cometa was reared for the first time from the capitulum of Cirsium palustre.

Samenvatting

In deze bijdrage vermelden we vijftien Belgische soorten Tephritidae samen met bijkomende waardplantgegevens. Tephritis cometa wordt voor het eerst gemeld voor de Belgische fauna. Ook wordt een nieuwe waardplant, Cirsium palustre, aan het waardplantenspectrum van T. cometa toegevoegd.

Introduction

Tephritidae are small flies (2-8 mm). The wings of most species are prominently patterned. Most species of Tephritidae are phytophagous. The larvae live in fruits, roots and flower heads, or are leafminers or stem-borers. Most Tephritids are associated with composite plants (Asteraceae) (HENDEL, 1927; WHITE, 1988).

The composition of the Belgian Tephritidae fauna is fairly well documented. The most recent survey is given by LECLERCQ & DE BRUYN (1991). VAN AARTSEN (1992) recently added 3 species to the Belgian fauna.

Material & methods

Tephritid flies were collected in two ways. Firstly, individuals were collected by general sweeping during the summer. Secondly, species were reared from their host plants. Different plants or plant parts were checked on the presence of larvae of Tephritidae. When an attacked plant was

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found, it was kept in a sealed plastic bag until the larvae pupated. After pupation the larvae were placed in glass tubes, together with a moistened piece of paper to prevent desiccation, until flies emerged.

For the identification of the flies we used keys of HENDEL (1927), SÉGUY (1934), RIKHTER (1970) and WHITE (1988).

Results

Twelve species of Tephritidae were swept from the vegetation. Seven species were reared from their host plants. One species, *Tephritis cometa* (LOEW, 1840), is recorded for the first time from Belgium.

All species are listed below. The dates mentioned refer to the collection date. If the species was reared from a host plant, this is also mentioned.

The species are stored in the collection of the University of Antwerp (RUCA), afterwards they will be deposited at the Royal Belgian Institute of Natural Sciences, Brussels.

MYOPITINAE

Urophora cardui (LINNAEUS, 1758)

Deurne (FS.07), 10.VIII.1989, galls on *Cirsium arvense* (L.) SCOP.
Mechelen (Muizenhoek)(FS.05), 7.VI.1982, 1♂, swept from the vegetation.

Antwerpen (ES.97), 5.VII.1984, 1♂, swept from the vegetation.
Zoersel (FS.18), 4.V.1992, 6♂♂ + 8♀♀, galls on *Cirsium arvense*.

Urophora cardui is monophagous. This species induces a multi-chambered stem gall on *Cirsium arvense*. Recorded from western and central Europe (WHITE, 1988). *U. cardui* was also introduced in Canada for the biological control of the weed *Cirsium arvense* (PESCHKEN *et al.*, 1982).

TRYPETINAE

Anomoia permunda (HARRIS, 1776)

Schoten (FS.08), 28.VII.1989, 2♀♀, swept from the vegetation.

Attacks the fruits of *Crataegus* spp., and sometimes other Rosaceae, and *Berberis* sp. Found throughout the Palaearctic region except in the south (WHITE, 1988). The two females were swept from a garden where *Berberis* sp. was abundant.

Euleia heracleii (LINNAEUS, 1758)

Deurne (FS.07), 04.VI.1993, 1♂ + 3♀♀, leafmines on *Levisticum officinale* KOCH.
Schoten (FS.08), 28.V.1989, 1♀, swept from the vegetation.

Leafminer of a wide range of umbelliferous plants. *Euleia heracleii* (Celery fly) is a serious pest of celery (*Apium graveolens* L.) and lovage (*Levisticum officinale*). Recorded in almost whole the Palaearctic region (WHITE, 1988).

Myoleja caesio (HARRIS, 1776)

Neerijse (FS.13), 20.VIII.1982, 1♀, swept from the vegetation.

The biology of most *Myoleja* species, including *M. caesio*, is unknown. Found throughout Europe, except in the north (WHITE, 1988).

Trypeta zoe MEIGEN, 1826

Antwerpen (ES.97), 08.VI.1993, 1♂, leafmines on *Senecio jacobaea* L.
Antwerpen (ES.97), 24.V.1993, 1♀, leafmines on *Senecio jacobaea*.

This species is a leafminer of *Artemisia*, *Eupatorium*, *Petasites*, *Senecio* and *Tussilago* species. Also a pest of garden species as *Aster*, *Chrysanthemum* and *Leucanthemum*. Recorded throughout the British Isles and central Europe (WHITE, 1988).

TEPHRITINAE

Cerajocera tussilaginis (FABRICIUS, 1775)

Erquennes (ER.57), 28.VII.1984, 1♀, swept from the vegetation.

Attacks the capitula of *Arctium* spp. Found throughout most of the Palaearctic region, except the Far East (WHITE, 1988).

Dithryca guttularis (MEIGEN, 1826)

Eben-Emael (FS.83), 5.VI.1983, 1♂, swept from the vegetation.

Forms galls on *Achillea* spp. at the base of the stem. Found throughout most of the Palaearctic region (WHITE, 1988).

Oxya flavipennis (LOEW, 1844)

Torgny (FQ.78), 18.VII.1993, 2♂♂, swept from the vegetation.

Induces root galls on *Achillea* spp. Found throughout most of the Palaearctic region, except in the south (WHITE, 1988).

Paroxyna plantaginis (HALIDAY, 1833)

Oostduinkerke (DS.76), 19.IX.1993, 1♂ + 1♀, swept from a dune vegetation.

Attacks the capitulum of *Aster tripolium* L. A typical coast species, found on the coast of the British Isles and the western European coast (WHITE, 1988).

Tephritis bardanae (SCHRANK, 1803)

Antwerpen (ES.97), 26.VI.1992, 2♂♂, swept from the vegetation.

Attacks the capitulum of *Arctium* spp. Found in the western Palaearctic (WHITE, 1988).

Tephritis cometa (LOEW, 1840)

Wuustwezel (FS.19), 3.VIII.1993, 1♂ + 2♀♀, capitulum of *Cirsium palustre* (L.) SCOP.

This species is recorded for the first time from Belgium. *T. cometa* is found throughout Europe and western Asia (FOOTE, 1984). *C. palustre* is also a new host record for *T. cometa*. Previously, it has been reared from *C. arvense* and *C. vulgare* (SAVI) TEN. (WHITE, 1988).

Tephritis conura (LOEW, 1844)

Antwerpen (ES.97), summer 1993, 3♂♂ + 4♀♀, capitulum of *Cirsium vulgare*.

Wuustwezel (FS.19), 3.VIII.1993, 1♀, capitulum of *Cirsium oleraceum* (L.) SCOP.

The larvae live endophytically in the capitula of *Cirsium* spp. (WHITE, 1988; ROMSTÖCK-VÖLKL, 1990). Found throughout Europe, except in the south (WHITE, 1988).

Tephritis praecox (LOEW, 1844)

Oostduinkerke (DS.76), 19.IX.1993, 1♂, swept from a dune vegetation.

Host unknown, in Israel reared from *Calendula arvensis* L. A coast species which is known from the coasts of the British Isles to the Mediterranean area and from the Middle East to Afghanistan (WHITE, 1988). Swept from a dune vegetation dominated by *Ammophila arenaria* (L.) LINK.

Terellia ruficauda (FABRICIUS, 1794)

Erquennes (ER.57), 28.VII.1984, 1♂, swept from the vegetation.
Wilrijk (ES.97), 13.VII.1993, 1♂, capitulum of *Cirsium arvense*.

Attacks the capitulum of *Cirsium* spp. Throughout the Palaearctic region, except in the south (WHITE, 1988).

Xyphosia miliaria (SCHRANK, 1781)

Erquennes (ER.57), 28.VII.1984, 1♂, swept from the vegetation.

Hoboken (ES.97), 30.V.1989, 1♂, swept from *Cirsium arvense*.
Westmalle (FS.18), 11.VII.1993, 1♂ + 4♀♀, capitulum of *Cirsium arvense*.

Wilrijk (ES.97), 6.VII.1993, 1♂ + 1♀, swept from *Cirsium arvense*.

Wilrijk (ES.97), 13.VII.1993, 3♂♂ + 6♀♀, capitulum of *Cirsium arvense*.

Wuustwezel (FS.19), 12.VII.1993, 5♂♂ + 3♀♀, capitulum of *Cirsium arvense*.

The larvae live in the capitula of different *Cirsium* species. A very common species found throughout most of the Palaearctic region, except in the south (WHITE, 1988).

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