

A. Freidberg

Department of Zoology, The George S. Wise Center
for Life Sciences, Tel Aviv University, Israel

A B S T R A C T

Thirty-five species of Tephritidae are recorded from the southern shoulder of Mt. Hermon. Months and altitudes of collecting, host plants and general distribution are given.

INTRODUCTION

Since 1967 several collecting trips have been made to the south-west slope of the Hermon ridge, called the Hermon Shoulder. The foot of this slope stands in the Upper Jordan Valley, at an altitude of 200-300 m; its peak reaches the altitude of 2224 m. The area investigated is about 60 km². The flora and fauna up to 1400 m are much like that found in the Upper Galilee. On the other hand, above 1400 m many species of plants and animals were found, which are not known from Israel (Shmida, Zohari and Danin, 1972; Kugler, 1974). Within the range 1000-2000 m, collecting stations have been made at least every 100 vertical meters. Summer (May-October) proved to be the best collecting season; during winter the high altitudes are covered with snow, patches of which persist well into summer.

A total of 35 species of Tephritidae was found. Six of them are not known from Israel west of the Jordan: *Urophora hermonis* Freidberg (1974), a new species recorded only from the Hermon, *Carpomyia schineri* Loew, *Orellia lappae* Cederjhelm, *O. quadratula* Loew, *Tephritis postica* Loew and *T. simplex* Loew. The first three species were reared from plants, also not known west of the Jordan. The tephritids of the Hermon Shoulder are Palaearctic, with five species reaching

* Part of a M.Sc. thesis done under the supervision of Prof. J. Kugler, in the Department of Zoology, Tel Aviv University. Partially supported by a grant from the Fauna Palaestina Committee of the Israel Academy of Sciences and Humanities.

Ethiopian Region. Genuine Ethiopian species such as *Carpomyia incompleta* Becker and *Schistopterum moebiusi* Becker, which reach the northern part of the Jordan Valley, very near to the foot of Mt. Hermon, were not found. Altitudinal zonation is noticeable, though not sharply defined. *Urophora macrura* Loew was not found at altitudes higher than 1200 m, while *U. stylata* Fabricius was found from 1000 to 1650 m, *U. syriaca* Hendel - 1000-1800 m, *U. hermonis* Freidberg - 1600-2000 m and *U. phaeocera* Hering only at 2000 m. The main factor governing this altitudinal distribution is, undoubtedly, the distribution of the host plants.

LIST OF SPECIES

Hypenidium novaki (Strobl, 1893)

1 ♂ collected on 8.VIII.1973, at 2000 m.

Gen. Dist.: Portugal, Yugoslavia, Hungary, Crimea, Israel.

Urophora (~~Euribia~~) *affinis* (Frauenfeld, 1856).

May to September, at all altitudes. Bred from flower heads of *Centaurea iberica* Trev. (Compositae), collected at 1200 m.

Gen. Dist.: Central and E. Europe, Mediterranean countries, W. Asia as east as Afghanistan, Israel.

Urophora hermonis Freidberg, 1974

May to June, at 1600-2000 m. Bred from flower head galls of *Cousinia hermonis* Boiss. (Compositae), collected at 2000 m.

Gen. Dist.: Mt. Hermon.

Urophora macrura (Loew, 1855)

Collected in May, at 1200 m, on *Carthamus glaucus* M.B. (Compositae)

Gen. Dist.: S. Europe, Caucasus, Asia Minor, North Africa, Israel.

Urophora phaeocera (Hering, 1961)

June to August, at 2000 m. Bred from flower heads of *Cousinia hermonis* Boiss. (Compositae), collected at 2000 m.

Gen. Dist.: Israel - according to Hering (1961), based on a single specimen without locality label.

Urophora quadrifasciata (Meigen, 1826)

June to September, at all altitudes. Bred from flower heads of *Centaurea iberica* Trev. (Compositae), collected at 1200 m.

Gen. Dist.: Europe, Caucasus, Asia Minor, Kazakhstan, N. Africa, Israel.

Urophora stylata (Fabricius, 1775)

May to August, at 1000-1650 m, on *Cirsium phyllocephalum* Boiss. et Bl. (Compositae).

Gen. Dist.: Europe, Asia as east as W. Siberia, Kazakhstan and Pakistan, Israel.

Urophora syriaca (Hendel, 1927)

June, at 1000-1800 m, on *Echinops* sp. (Compositae).

Gen. Dist.: Syria, Lebanon, Israel.

Myopites cypriaca Hering, 1938

Collected in October, at 1100 m, on *Inula graveolens* (L.) Desf. (Compositae).

Gen. Dist.: Cyprus, Israel.

Myopites stylata (Fabricius, 1794)

Collected in October, at 1100 m, on *Inula viscosa* (L.)

Desf. and *Pulicaria dysenterica* (L.) Gaertn. (Compositae).

Gen. Dist.: S. Europe, N. Africa, Israel.

Gonioglossum wiedemanni (Meigen, 1826)

Fruits of *Bryonia multiflora* Boiss. et Heldr.

(Cucurbitaceae), infested by larvae of *Gonioglossum*

wiedemanni, were collected on 13.VIII.1973, at 1100 m.

Gen. Dist.: Central and S. Europe, W. Asia, N. Africa, Israel.

Carpomyia schineri (Loew, 1856)

July to August, at 1650-2000 m. Bred from fruits of *Rosa glutinosa* Sibth. et Smith (Rosaceae).

Gen. Dist.: Central Europe, Caucasus, Kazakhstan, Central Asia.

Aciura coryli (Rossi, 1792)

May to June, at 1300-2000 m, on *Phlomis brevilabris* Ehrenb. (Labiatae).

Gen. Dist.: S. Europe, W. and Central Asia, Canaries, N. Africa, Israel.

Katonaia aida Hering, 1937

Collected in August, at 1000 m, on *Ballota* sp. (Labiatae).
Gen. Dist.: Israel.

Chaetorellia jaceae (Robineau-Desvoidy, 1830).

May to September, at all altitudes. Bred from flower heads of *Centaurea iberica* Trev. (Compositae), collected at 1200 m.

Gen. Dist.: Europe, Caucasus, Asia Minor, Iran, Egypt, Israel.

Chaetostomella onotrophes (Loew, 1845)

May to September, at all altitudes. Bred from *Onopordon floccosum* Boiss., collected at 1800 m, and from *Cousinia hermonis* Boiss., collected at 2000 m (both-Compositae).

Gen. Dist.: Europe, Caucasus, Asia Minor, Kazakhstan, Afghanistan, Algeria, Israel.

Terellia serratulae (Linnaeus, 1758)

May to October, at all altitudes, but rarely above 1900 m.

Gen. Dist.: Europe, Caucasus, Kazakhstan, Syria, Iran, N. Africa, Israel.

Terellia virens (Loew, 1846)

June to September, at all altitudes, Bred from flower heads of *Centaurea iberica* Trev. (Compositae), collected at 1200 m.

Gen. Dist.: Central and S. Europe, Asia Minor, Kazakhstan, Afghanistan, N. Africa, Israel.

Orellia lappae (Cederjhelm, 1798)

May to June, at 1650-1800 m (rarely at 2000 m). Bred from flower heads of *Onopordon floccosum* Boiss. (Compositae), collected at 1800 m.

Gen. Dist.: Central and S. Europe, Crimea, Caucasus.

Orellia quadratula (Loew, 1869)

June, at 1400-1800 m, on *Echinops* sp. (Compositae).

Gen. Dist.: Caucasus, Lebanon.

Paroxyna tessellata (Loew, 1844)

May to October, at all altitudes, on various Compositae.

Gen. Dist.: Europe, Asia Minor, W. Asia as east as Afghanistan, Canaries, N. Africa, Israel.

Sphenella marginata (Fallen, 1820)

June to August, at all altitudes. Bred from *Senecio* sp. (Compositae), collected at 2000 m.

Gen. Dist.: Europe, Asia Minor, Kazakhstan, Turkmenia, Afghanistan, Canaries, Africa, Australia, Israel.

Ensina sonchi (Linnaeus, 1767)

June to September, at all altitudes.

Gen. Dist.: Europe, Caucasus, Kazakhstan, Asia Minor, Israel.

Tephritis brachyura Loew, 1869

June to July (rarely in September), at 1400-2000 m.

Gen. Dist.: Southern U.S.S.R., Mongolia, Israel.

Tephritis conjuncta (Loew, 1862)

May to October, at all altitudes.

Gen. Dist.: Europe, Southern U.S.S.R., Kazakhstan, Israel.

Tephritis poecilura Loew, 1869

May to September, at all altitudes.

Gen. Dist.: S. Europe, Afghanistan, N. Africa, Israel.

Tephritis postica (Loew, 1844)

Collected in June and August, at 1650 and 2000 m.

Gen. Dist.: Central and S. Europe, Crimea, Caucasus, Kazakhstan, Asia Minor, Iran, N. Africa.

Tephritis recurrens Loew, 1869

May to September, at 1200-2000 m.

Gen. Dist.: S. Europe, Crimea, Caucasus, Asia Minor, Kazakhstan, Israel.

Tephritis simplex (Loew, 1844)

1 ♂ collected on 21.VI.1971, at 2000 m.

Gen. Dist.: S. Europe, Asia Minor, Algeria, Tunisia.

Trupanea amoena (Frauenfeld, 1856)

May to October, at all altitudes.

Gen. Dist.: Europe, Asia, Canaries, N. Africa, Ethiopia, Israel.

Trupanea stellata (Fuessly, 1775)

May to October, at all altitudes.

Gen. Dist.: Europe, W. Asia as east as Kazakhstan and Afghanistan, Canaries, N. and E. Africa, Israel.

Goniurellia sp.

May to August, at all altitudes.

Gen. Dist.: Israel.

Acanthiophilus helianthi (Rossi, 1790)

May to October, at all altitudes. Bred from flower heads of *Centaurea iberica* Trev. (Compositae), collected at 1200 m.

Gen. Dist.: Europe, Asia Minor, W. and Central Asia, Canaries, N. Africa, Ethiopia, Israel.

Acanthiophilus ramulosus (Loew, 1844)

May to October, at all altitudes.

Gen. Dist.: Mediterranean countries, Israel.

Tephritomyia lauta (Loew, 1869)

June to October, at all altitudes. Bred from flower heads of *Echinops* sp. (Compositae), collected at 1800 m.

Gen. Dist.: Mediterranean countries, Israel.

ACKNOWLEDGEMENTS

The author wishes to express his gratitude to Mr. E. Hurvitz, director of the "Beit Ussishkin" Regional Museum, Kibbutz Dan, for his hospitality.

R E F E R E N C E S

- Freidberg, A. 1974. Descriptions of new Tephritidae (Diptera) from Israel. *I. J. Ent. Soc. Southern Africa* 37:49-62.
- Hering, M. 1961. Ergebnisse der Deutschen Afghanistan-Expedition 1956 der Landessammlungen für Naturkunde Karlsruhe. *Beitr. Naturk. Forsch. SW-Deutschl.* 19:319-331.

Kugler, J. 1974. Tachinidae (Diptera) from Mt. Hermon, with the description of six new species. *Israel J. Entomol* 9: 109-131.

Shmida, A., Zohari, M. and Danin, A., 1972. Flora and vegetation in Mount Hermon. *Sal'it* 1:100-111 (in Hebrew).