

NEW RECORDS OF TEPHRITINAE (DIPTERA: TEPHRITIDAE) FROM AUSTRALIA AND THE SOUTH PACIFIC

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Abstract

New distributional or host plant records are provided for seven species of Tephritinae. Records of *Dioxya brachybasis* Hardy from Niue, Cook Is, French Polynesia and Fiji are considered to be misidentifications of the variable *D. sororcula* (Wiedemann).

Introduction

Flower-infesting species of fruit flies, placed in the subfamily Tephritinae, are gaining importance as potential biological control agents, yet information on their distribution and host plants is relatively sparse for both Australia and South Pacific countries. Most available information was summarised by Hardy (1988), Hancock and Drew (1994) and Hardy and Drew (1996). Additional information is provided below, mostly from the collection of the Zoological Museum, University of Copenhagen (ZMUC), plus a few records from the Australian National Insect Collection, Canberra (ANIC) and Queensland Department of Primary Industries, Brisbane (QDPI).

Systematics

Tribe Tephrellini

Sphaeniscus atilius (Walker)

Material examined. AUSTRALIA: 1 ♂, Northern Territory, Baroalba Creek Springs, 19 km NE by E of Mt Cahill, 28.x.1972, D.H. Colless (ANIC); 1 ♀, New South Wales, The 5 Islands [4], Wollongong, 13.iii.1936, D.F. Waterhouse (ANIC).

Comments. Although previously reported from Australia (Hardy and Drew 1996), the above are the first published locality records for this widespread species. In Southeast Asia it breeds in the flowers of *Hyptis* spp. (Labiatae).

Tribe Tephritini

Dioxya conflicta (Curran)

Material examined. NEW CALEDONIA: 3 ♂, 6 ♀, Yahoé, iii.1978, N.L.H. Krauss; 2 ♂, Noumea, iii.1978, N.L.H. Krauss. VANUATU: 12 ♂, 5 ♀, Efate, Vila, xii.1978, N.L.H. Krauss. TONGA: 10 ♂, 16 ♀, Tongatapu, Nuku'alofa, i & ii.1978, i.1980, N.L.H. Krauss; 2 ♂, Tongatapu, Kolovai, 29.i.1979, N.L.H. Krauss; 2 ♂, 4 ♀, Vava'u, i.1978, N.L.H. Krauss. WESTERN SAMOA: 2 ♂, Upolu I., Mulivai, i.1978, N.L.H. Krauss. NIUE: 26 ♂, 18 ♀, Alofi, i.1978 & xii.1979, N.L.H. Krauss (all ZMUC).

Comments. Newly recorded from Vanuatu, Tonga, Samoa and Niue.

Dioxya sororcula (Wiedemann)

Material examined. AUSTRALIA: 3 ♂, 2 ♀, Queensland, Atherton, 30-31.x & 3-18.xi.1972, A.M. Hemmingsen. WESTERN SAMOA: 3 ♂, 1 ♀, Upolu I., Mulivai, i.1978, N.L.H. Krauss. NIUE: 1 ♂, Alofi, xii.1979, N.L.H. Krauss. COOK ISLANDS: 16 ♂, 19 ♀, Aitutaki, xii.1977, N.L.H. Krauss; 28 ♂, 20 ♀, Rarotonga, xi-

xii.1977 & iii.1979, N.L.H. Krauss. FRENCH POLYNESIA: 1 ♂, 2 ♀, Austral [Tubuai] Is, Rurutu, xii.1977, N.L.H. Krauss (all ZMUC).

Comments. This widespread species is newly recorded from Western Samoa and Niue. The wing pattern is a little variable, cell r_1 sometimes having two instead of three hyaline spots on one or both wings and previous records of *D. brachybasis* Hardy from Niue, Cook Is, French Polynesia and Fiji (Hardy 1988, Hancock and Drew 1994) belong to *D. sororcula*.

Hendrella sexincisa (Malloch)

Material examined. AUSTRALIA: 1 ♂, Queensland, Atherton, 3-18.xi.1972, A.M. Hemmingsen (ZMUC).

Comments. Newly recorded from northern Queensland.

Rhabdochaeta crockeri Curran

Material examined. SOLOMON ISLANDS: 42 ♂♀, Guadalcanal, Bagi, 16 & 23.i.1995, R. Wylie *et al.*, bred from flowers of *Wedelia biflora* (QDPI); 1 ♂, 2 ♀, W Guadalcanal, Lavuro, 19.vii.1995, R. Hollingsworth (QDPI).

Comments. *Wedelia biflora* (Asteraceae) is the first host record for this species. It was misspelt 'crockeri' by Hardy and Drew (1996).

Spathulina acroleuca (Schiner)

Material examined. AUSTRALIA: 2 ♂, 1 ♀, Queensland, Atherton, 30-31.x & 3-18.xi.1972, A.M. Hemmingsen. SOLOMON ISLANDS: 2 ♀, Vanikoro, St Cruz, 22.viii.1934. VANUATU: 12 ♂, 5 ♀, Efate, Vila, xii.1978, N.L.H. Krauss. FIJI: 7 ♂, 4 ♀, Viti Levu, Nandi, ii.1978 & iii.1980, N.L.H. Krauss. TONGA: 23 ♂, 10 ♀, Tongatapu I., Kolovai & Nuku'alofa, i & ii.1978, i.1979, i.1980, N.L.H. Krauss; 11 ♂, 13 ♀, Vava'u, i.1980, N.L.H. Krauss. WESTERN SAMOA: 10 ♂, 8 ♀, Upolu I., Mulivai, Vailima & Apia, i.1978, N.L.H. Krauss. AMERICAN SAMOA: 1 ♂, 1 ♀, Pago Pago, 18.iv.1934. NIUE: 6 ♂, 8 ♀, Alofi, i.1978 & xii.1979, N.L.H. Krauss. FRENCH POLYNESIA: 3 ♂, 1 ♀, Tahiti, Punanina, xii.1977, N.L.H. Krauss (all ZMUC).

Comments. This widespread species is newly recorded from Vanuatu, Niue and French Polynesia.

Tetreuaresta obscuriventris (Loew)

Material examined. TONGA: 4 ♂, 8 ♀, Tongatapu, Nuku'alofa, ii.1978 & i.1980, N.L.H. Krauss (ZMUC); 1 ♂, 2 ♀, Tongatapu, Kolovai, 29.i.1979, N.L.H. Krauss (ZMUC); 1 ♂, 1 ♀, Vava'u, i.1980, N.L.H. Krauss (ZMUC).

Comments. This New World species has been introduced to Fiji and Tonga for the biological control of *Elephantopus mollis* (Asteraceae).

References

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