

## SCIENTIFIC NOTE

# NEW HOST RECORD FOR METALLIC-GREEN TOMATO FLY *LAMPROLONCHAEA BROUNIANA* (BEZZI) IN OLIVES (*OLEA EUROPAEA* L.)

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### Summary

The general public often contribute samples of fruit and insects. During one of these biosecurity activities, olives with insect damage were collected in Victoria. Metallic-green tomato flies (*Lamprolonchaea brouniana* Bezzi) were reared from olive samples. This record in olives is a new host record for *L. brouniana*.

**Keywords** host, morphological identification

### INTRODUCTION

Olives, *Olea europaea* L. (Oleaceae), have been grown in Australia since European settlement. The original commercial introduction was about 1880 (Mailer *et al.* 2010). Olive growing areas are mostly climatically equivalent to the traditional olive growing areas in Europe, particularly the Mediterranean climate (Spennemann and Allen 2000). The main olive production areas are in the Australian states of Western Australia, South Australia, New South Wales and Victoria (Mailer *et al.* 2007).

Members of the public are increasingly aware of plant biosecurity concerns and contribute samples for pest identification. In autumn 2015, three samples of olives suspected as containing insects were submitted for analysis. Here we report the first detection of metallic-green tomato flies (*Lamprolonchaea brouniana* Bezzi) completing their life cycle in olives.

### MATERIALS AND MATERIALS

Three samples of olive fruit containing larvae were brought into government offices in Mildura in autumn 2015. All samples of suspect fruit were sent to the Taxonomy Laboratory, Agriculture Victoria, AgriBio, for morphological identification. Olive samples were placed in a single layer on paper towel above a layer of vermiculite, at 22°C at 60% humidity with 16 hours of “daylight” (lights on) and 8 hours of dark. Larvae were allowed to complete their life cycle and adults were harvested for identification. Adults and larvae were

identified morphologically using White and Elson-Harris (1992) and Blacket and Malipatil (2010).

### RESULTS and DISCUSSION

Larvae were morphologically identified as *Lamprolonchaea brouniana* (Bezzi), metallic-green tomato flies. There were 13 specimens of *L. brouniana* reared to adults and identified based on morphological features using Blacket & Malipatil (2010). *Lamprolonchaea brouniana* have been collected from New South Wales, Northern Territory, Queensland, Victoria and Western Australia (Blacket & Malipatil 2010). The species appears to be restricted to Australia and frequently collected in the temperate south (Blacket & Malipatil 2010). It appears to be a generalist species capable of feeding on a wide range of organic matter (fruit, dung). Generally, *L. brouniana* occurs in ripe or damaged fruit and is not a serious primary invader (Blacket and Malipatil, 2010; Hely *et al.*, 1982). Additionally, Queensland fruit fly (*Bactrocera tryoni* Froggatt) were found to complete their life cycle in olives (Dominiak *et al.* 2019).

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