

First record of a winged *Ozothrips janus* (Thysanoptera: Phlaeothripidae) from New Zealand

Hamaseh Aliakbarpour

AsureQuality Ltd, Auckland, New Zealand.
hamaseh.aliakbarpour@asurequality.com

Abstract

All seven specimens of *Ozothrips janus* Mound and Palmer (Thysanoptera: Phlaeothripidae) previously recorded in New Zealand were completely apterous. This is the first record of a winged *Ozothrips janus*, which was found on kiwifruit in New Zealand. A short description and dimensions of this winged specimen are provided.

Introduction

Ozothrips species feed on fungal spores on the leaves of saw sedge, *Gahnia* sp. (Cyperaceae) (Mound et al. 2017). There are five known species in this genus (*Ozothrips eurytis*, *O. janus*, *O. priscus*, *O. tubulatus* and *O. vagus*). All five species are endemic to New Zealand. All known specimens of *Ozothrips janus* have been apterous, although winged forms have been recorded for the other four species (Mound & Walker 1986).

Ozothrips janus was described from the original 7 apterae (5 females and 2 males) collected from *Gahnia* sp. on Otata Island in the Hauraki Gulf, near Auckland, New Zealand. This species was also recorded outside New Zealand for the first time in November 2014, based on two males and one female, all apterous, on Norfolk Island (Mound & Wells 2015).

Methods

A single winged thrips was found on kiwifruit at a packhouse in Kerikeri and was received at the AsureQuality Pest Laboratory in Auckland on 16 June 2020 as part of the kiwifruit export pest identification programme. In the laboratory, the specimen was cleared in Essig's fluid to examine diagnostic features and then slide mounted in Heinz mounting medium. Identification was carried out by the author using a high-power compound microscope (up to 600x) with reference to the keys provided by Mound et al. (2007) and Mound and Walker (1986). The identification was confirmed by a colleague at AsureQuality, and subsequently validated by entomologists at Plant Health and Environment Laboratory, Ministry for Primary Industries, Auckland, New Zealand, and, finally, by Laurence Mound, CSIRO, Canberra. The specimen is deposited in the AsureQuality Insect Collection (AQNZ), PestLab, Blockhouse Bay, Auckland.

Results

A thorough examination of the winged specimen in the laboratory indicated that, apart from having wings, all the diagnostic features were identical to the apterous specimens of this species.

Material examined: 1 winged female, collected on kiwifruit, June 2020 at Kerikeri, Northland (ND).

Colour: colouration is similar to apterous specimens. Body brown with yellowish fore tarsi, fore tibiae and apices of fore femora, apex of antennal segment II and base of antennal segment III yellowish, tube golden-yellow with a dark brown apex (Figure 1a).

Head: about as wide as long, ocelli absent, compound eyes longer on the ventral surface of the head, two pairs of acute postocular setae (1 pair long and the other pair short), one pair of ocellar setae, which are shorter than postocular setae (Figure 1b).

Antennae: 7-segmented, segment II with a very distinctive pattern in apical half where the pore is, segment III with 2 sense cones, segment IV with 4 sense cones (Figure 1b).

Pronotum: without sculpturing, major setae (anteroangular setae, midlateral setae, epimeral setae and posteroangular setae) long and acute, praepectus weak (Figure 1c).

Abdomen: pelta triangular, faintly sculptured (Figure 1d), wing retaining setae on tergites short, but median setae on tergite VII very long, tergite II eroded on lateral margin, posteromarginal tergal setae long and acute, tergite IX setae longer than tube, tube constricted apically.

Dimensions (μm): body length (extended) 1800, Head length 172.8, median width 201.6, pronotum length 110.4, median width 264, Forewing length 672, Tube length 132, Antennal segments III-VII length 43.2, 48, 48, 48 and 52.8 respectively.

Acknowledgements

I am grateful to my colleague, Graeme Page, for his role in the identification process, to Disna Gunawardana and Asha Thomas at the Plant Health and Environment Laboratory, Ministry for Primary Industries, Auckland, New Zealand, and Laurence Mound CSIRO, Canberra, Australia, for confirming the identification. Also special thanks to John Keall, Pest Laboratory Manager for proofreading the manuscript and helpful comments.

References

Mound LA, Nielsen M, Hastings A. 2017. *Thysanoptera Aotearoa* – Thrips of New Zealand. Lucidcentral.org, Identic Pty Ltd, Queensland, Australia.

Mound LA, Walker AK. 1986. Tubulifera (Insecta: Thysanoptera). Fauna of New Zealand No. 10. 35–38.

Mound LA, Wells A. 2015. Endemics and adventives: Thysanoptera (Insecta) Biodiversity of Norfolk, a tiny Pacific Island. *Zootaxa* 3964 (2): 183–210.

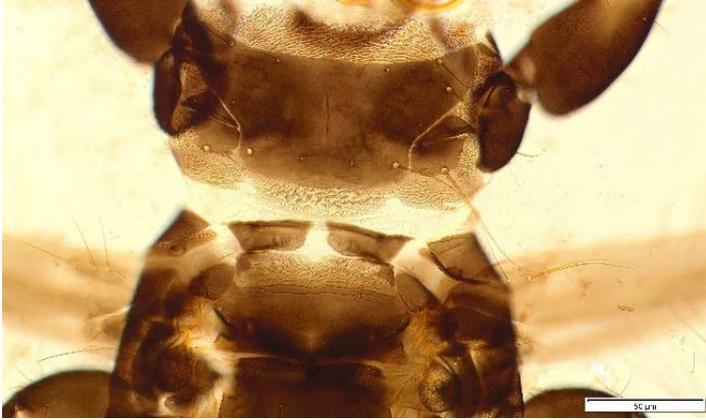
(a)



(b)



(c)



(d)



Figure 1. Winged *Ozothrips janus* (a) whole body, (b) head and antennae, (c) pronotum, and (d) pelta and abdominal segments I-III.