

# Update on New Zealand Tachinidae

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Two years on from my presentation “A Tussle with Tachinidae” at the 8th International Congress of Dipterology in Potsdam, Germany, I am pleased to be able to report on the progress I have made in establishing a key to the New Zealand tachinid genera. The key, along with factsheets containing representative images of the New Zealand tachinid genera, will go live on the Landcare Research – Manaaki Whenua website (<http://tachinidae.landcareresearch.co.nz>) in March/April this year.

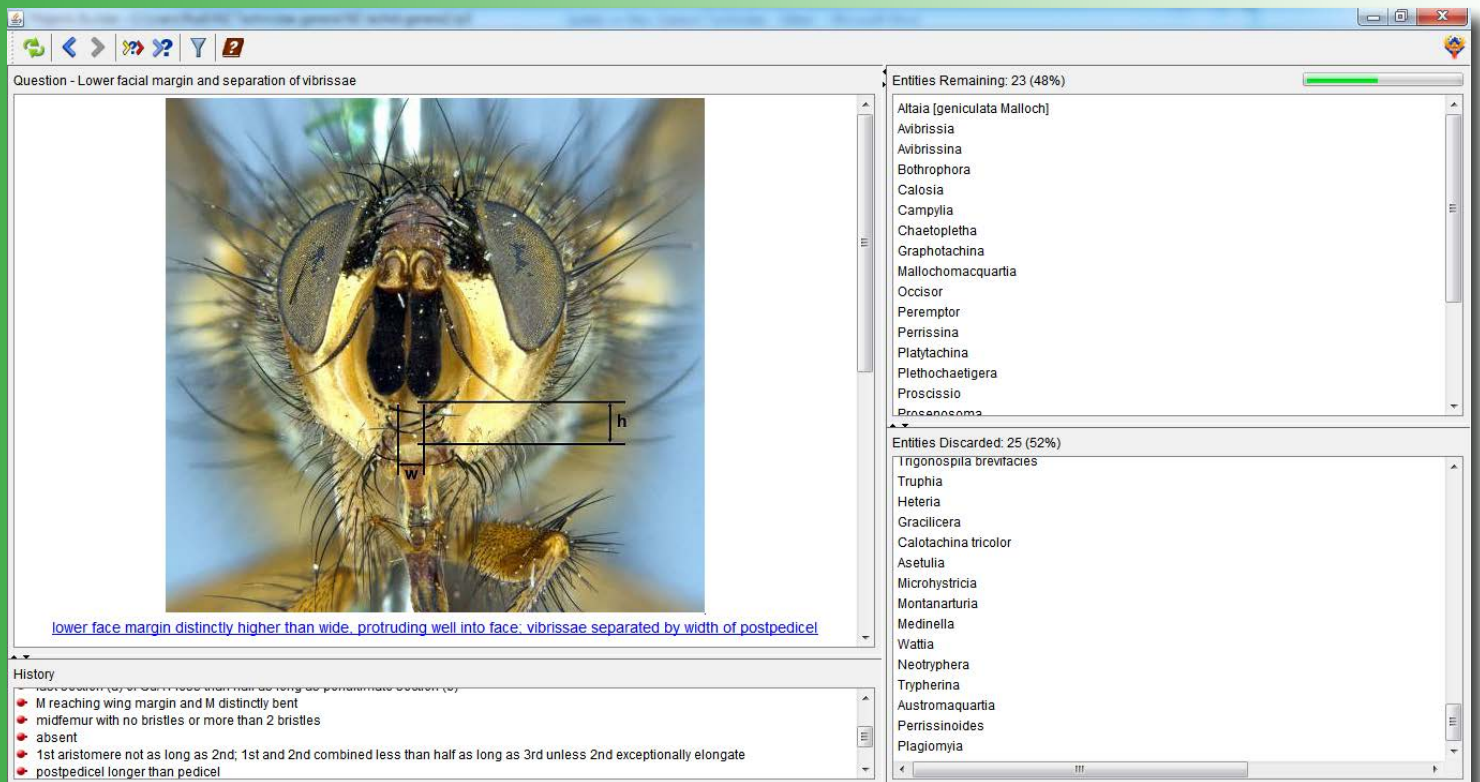
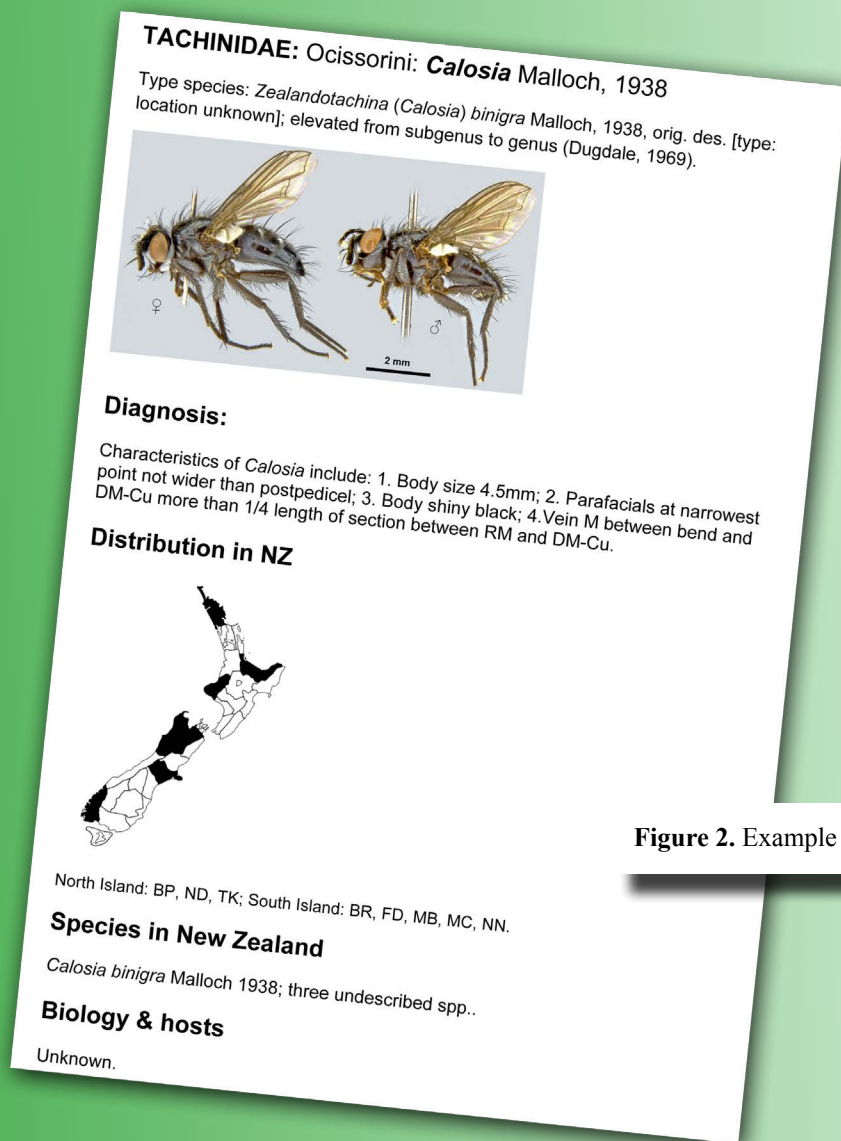


Figure 1. Screen capture of part of the dichotomous Phoenix key to the New Zealand tachinid genera.

New Zealand has 56 described tachinid genera, of which 93% are endemic (4 genera are present elsewhere); and these include approximately 142 described species, of which 98.5% are endemic (2 species are introduced). The key to the genera will be a dichotomous Phoenix key (Fig. 1) and is considered preliminary.

A separate factsheet has been produced for each genus, which contains information about the tribe, type species (and the depository of its name-bearing type), diagnosis, distribution in New Zealand, species within the genus, and biology and hosts (Fig. 2). A synoptic collection has been established at the New Zealand Arthropod Collection. Where available the name-bearing type of the type species for each genus has been examined by me.



**Figure 2.** Example of a New Zealand tachinid genus factsheet.

The key and factsheets are still heavily based on Malloch's (1938) key and Dugdale's (1969) work. However, this is the first work to provide photographic images of characters that are relevant to our current understanding of New Zealand's Tachinidae and a representative specimen for each genus. This will hopefully form the basis for further work on the New Zealand Tachinidae.

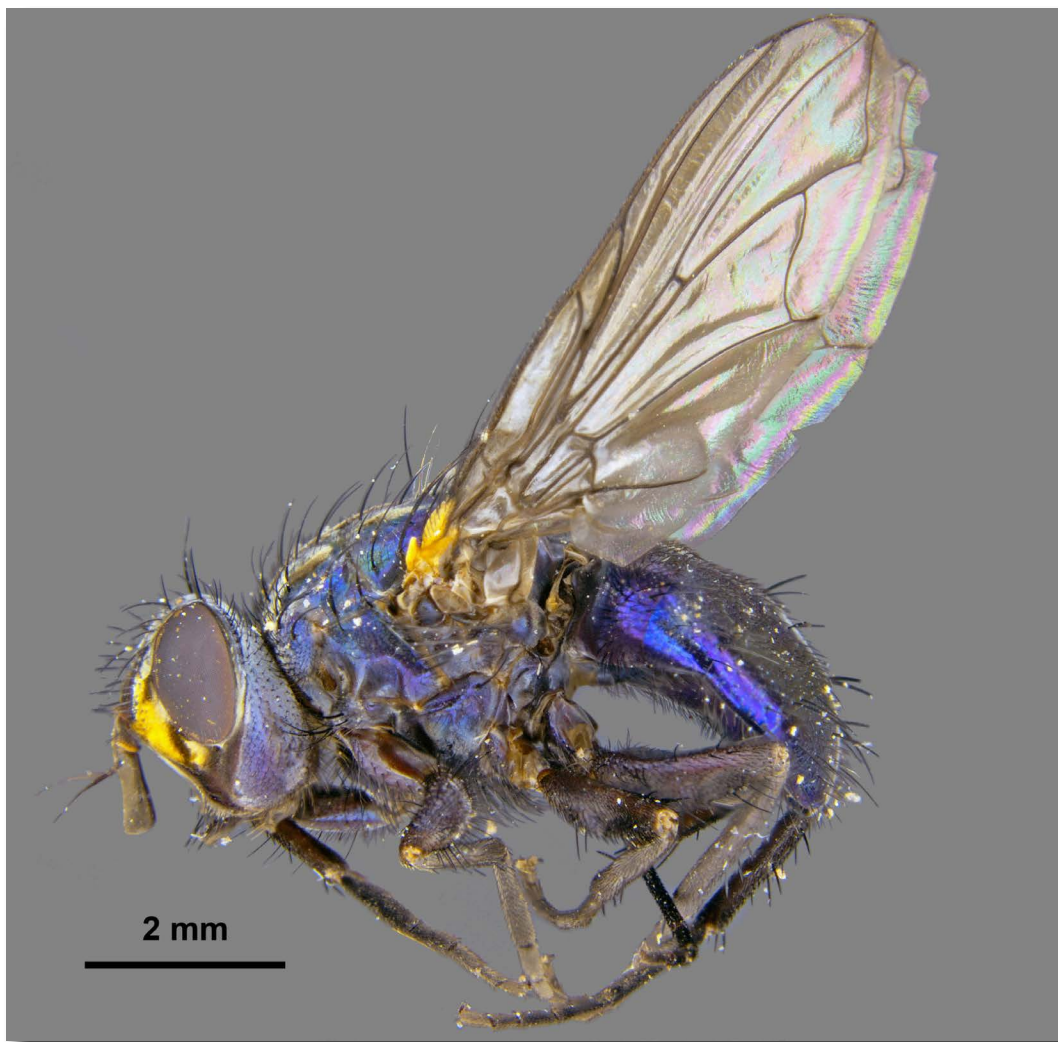
Foremost, I would like to thank the New Zealand Department of Conservation for making this work possible through a *Terrestrial and Freshwater Biodiversity Information System (TFBIS)* grant. I also wish to thank Landcare Research – Manaaki Whenua, Auckland, and the New Zealand Arthropod Collection, which housed me during this project and made their imaging system available to me. Many thanks also go to John Dugdale and Robert Hoare, both of whom listened carefully and patiently to my lamentations about tachinids.

It has been a steep learning curve for me to come to grips with this fascinating group. I quite enjoyed the work, despite it sometimes being painful (no, I am not a masochist!) trying to understand the genera and their species. It was a tremendous encouragement for me to meet so many tachinid enthusiasts in Potsdam nearly two years ago now. This work is not yet finished, however, and so I look forward to contributing to a revision of the New Zealand tachinid genera in the future. Following a change in my job position as of June last year, I should have plenty of time to start to attempt such a revision at the genus level. In the meantime, I have already collected a number of fresh specimens and hope to find more time to carry out active collections throughout New Zealand. Where possible, I have been setting

aside legs in ethanol and will continue to do this for future molecular work, as recommended by O'Hara (2011). It may not come as a surprise that I am continually finding new species and genera that nobody else has collected previously. For example, the new genus shown in Fig. 3 contains four to five species, two of which I only collected this month in a Malaise trap. I will provide an update of what I am doing and the progress I am making on <http://www.bugz.co.nz/new-zealand-tachinidae/>.

## References

- Dugdale, J.S. (1969) A classification of the New Zealand genera of Tachinidae (Diptera: Cyclorrhapha). *New Zealand Journal of Science*, 12, 606–646.
- Malloch, J.R. (1938) The calyprate Diptera of New Zealand, parts VIII and IX. *Transactions and Proceedings of the Royal Society of New Zealand*, 68, 161–258.
- O'Hara, J.E. (2011) Collecting and preserving tachinid legs for molecular study. *The Tachinid Times*, 24, 11–14.



**Figure 3.** A new New Zealand tachinid species representing a new genus.