

# HIERACIUM GALL WASP

*Aulacidea subterminalis*

## The history of hieracium gall wasps in New Zealand

The hieracium gall wasp is native to northern Europe and it was first imported from Switzerland by Landcare Research, in conjunction with the Hieracium Control Trust, in 1997. Widespread releases of the wasp began in 1999. The gall wasps have now established but are not yet widespread at sites in the North and South Islands.

## How would I find hieracium gall wasps?

You will not be able to easily differentiate the adult gall wasps in the field from other small-winged insects. The adults are small (2-3 mm long) and dark brownish-black in colour. Despite being wasps, like the vast majority of this family, they are harmless to humans and do not sting. Hieracium gall wasps are parthenogenetic (able to reproduce without



Galled stolon



Hieracium gall wasp adult

fertilisation) so there are no males. Each individual lays tiny milky-white eggs inside the tips of stolons (the long runners that the plant uses to make new plants) in late spring. Each adult lays about 85 eggs and often several are laid in the same stolon tip.

Creamy-coloured larvae hatch and begin feeding inside the stolons over the summer. The plant responds by laying down extra tissue around the larvae. The larvae continue to feed and develop inside these galls for about 6-8 weeks and, gradually, swellings about the size of a pea begin to form around each larva. These fleshy, green galls are the most obvious sign that gall wasps are present in an area and the best time to look for them is in late summer. Once fully grown the gall wasp larvae remain inside the galls throughout autumn and winter. During this time the galls dry out and turn brown. In early spring the wasps pupate and new adults emerge soon after. Only one generation is produced each year.

The hieracium gall midge (*Macrolabis pilosellae*) also galls the stolon tips but these galls are much softer and are associated with curled leaves.

See *Hieracium gall midge*.

### How do hieracium gall wasps damage hawkweeds?

Stolon growth is reduced in galled plants and this reduces their ability to spread vegetatively by producing daughter plants at the tips.

### Will hieracium gall wasps attack other plants?

No, it is extremely unlikely that hieracium gall wasps will attack plants other than mouse-ear hawkweed (*Hieracium pilosella*) and orange hawkweed (*H. aurantiacum*). The other weedy *Hieracium* spp. are unlikely to be attacked.

### How effective are hieracium gall wasps?

The impact of hieracium gall midges in New Zealand is not yet known. A lab trial showed that stolon growth is reduced in galled plants reducing vegetative spread.

### How can I get the most out of hieracium gall wasps?

The wasps are still quite limited in distribution so as soon as they are present in harvestable numbers it would be worth helping to establish them in all areas where they are needed, as soon as possible.



Galled stolon in field

### How do I choose a release site?

Read *Guidelines for selecting release sites for biocontrol agents*.

### How do I collect hieracium gall wasps for release?

Harvest woody galls in the autumn and leave these on the ground in a safe and sheltered place (like the base of tussocks) so that the wasps can emerge the following spring. Aim to shift at least 100 galls if possible.

### How do I manage the release sites?

Avoid activities that will interfere with the wasp's life cycle. Avoid herbicides if possible.

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