

NATIVE INSECTS THAT DAMAGE GORSE

Not all insects that damage gorse are introduced biological control agents. Two species that are native to New Zealand, a moth and a beetle, will readily attack this exotic weed, and can produce highly visible, severe damage. Broom may also be attacked. We do not encourage people to augment these insects in any way or spread them around because of the risk of damage to other desirable plants.

Gorse stem miner

The original hosts of this stem-mining moth (*Anisoplaça ptyoptera*) are believed to be the 30 or so indigenous woody native broom species (legume tribe Carmichaeliae). In the early 1970s people noticed that the moth had successfully colonised gorse. The gorse stem miner damages gorse throughout the South Island, and is particularly common in Canterbury. This insect is believed to be kept in check by parasitoids.



Gorse stem miner larva and frass



Typical damage

The adults are plain brown moths and you may see them flying about, but they will be difficult to distinguish from other moth species. The larvae are the damaging stage. They tunnel and feed under the bark, and often ringbark stems. The foliage above this point dies from water stress especially when the conditions are dry. You can easily recognise this damage by looking for branches in otherwise healthy-looking plants with bright yellow foliage, or later pale brown as they die off. Mined branches are structurally weakened and easily break off at the point at which they were ringbarked. Inside the tunnels, sawdust-like frass, and possibly the larvae themselves which are 1–2 cm long and creamy coloured, can be seen. If the larvae have fed near ground level, then a whole plant may be ringbarked and die.

Lemon tree borer

This beetle (*Oemona hirta*) is a common species that attacks a wide range of woody plants, including citrus (hence its name). Lemon tree borer occurs throughout New Zealand but it is most commonly seen damaging gorse in the North Island.



The brownish adults are typical longhorn beetles with long antennae and elongated bodies (15–25 mm long) and you may see them sitting on gorse plants in the spring. They lay their eggs at this time on dead twigs or under bark crevices. Again the larvae are the damaging stage and they emerge and tunnel directly into the wood. They bore through the centre of the stems and, like the gorse stem miner, also ringbark stems just below the bark. These damaged branches also easily break off, and the grubs can be seen inside. The creamy coloured larvae can grow up to 35 mm long and have distinctive body ridges that help them to

move about in their tunnels. The tunnels may be very long and have side exits that allow the grubs to eject their sawdust-like frass to the outside. Once fully grown the larvae pupate in closed cells within the tunnels through the winter months. The emerging adults use their mouthparts to cut their way out in the spring. Dieback of young twigs is often the first sign of injury to the plant that you might notice, especially in late summer. Also look for the frass on the branches around the side exits, which also becomes more obvious at this time. As the larvae mature, whole branches may show dieback, and breakages due to wind are common.



Lemon tree borer

For further information contact:

Hugh Gourlay
Landcare Research
PO Box 40 Lincoln 7640
NEW ZEALAND
email: gourlayh@landcareresearch.co.nz
Ph (03) 321 9683
Fax (03) 321 9998