



The biology and impact of poplar sawfly in New Zealand



Snapshot

Industry partners: NZ Poplar and Willow Research Trust

Project length: 1 year

Start date: December 2019

Estimated completion date: November 2020

Industry funding: \$25,000

MPI funding: \$100,000

Research on the poplar sawfly's biology and impact on different poplar varieties will inform New Zealand's approach to long-term management of this pest.

The opportunity

An established population of poplar sawfly (*Cladius grandis*) was detected in Dunedin in January 2019. It feeds on most poplars currently in slope stabilisation programmes. New Zealand has three native sawfly species (all distantly-related parasites of wood-boring insects) and no native poplars. This species may spread rapidly throughout New Zealand. It's essential to understand the potential impacts of the pest upon the currently grown poplar varieties that have been bred specifically for New Zealand conditions.

The solution

Before long-term management options can be considered, basic information on the biology of poplar sawfly must be gathered to quantify its potential impact. This project will monitor the life-cycle of poplar sawfly for 12 months to determine the number of generations per year, the rate it is spreading, and its initial impact on New Zealand poplar varieties. Evidence of larvae observed to be infected with potential microbial or insect biocontrol agents will be kept for future analysis to inform

future decision-making on potential bio-control options.

Monitoring fieldwork will be carried out at known infested sites and poplar trial sites around Dunedin to help shape the New Zealand Poplar and Willow Research Trust's future poplar breeding programme to maximise tolerance to poplar sawfly.

The public will also be encouraged to put any finds of the pest onto the web platform iNaturalist. A project to track its spread has been set up here: inaturalist.nz/projects/tracking-the-poplar-sawfly

The benefits

If successful, this project could benefit New Zealand by:

- protecting investment in poplar plantings as a critical tool for stabilising erosion-prone land and reducing runoff to waterways;
- informing the best approach for long-term pest management of poplar sawfly.