

New Zealand Native Solitary Bees - What's The Buzz?

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Biodiversity loss has been heavily driven by the expansion and intensification of agriculture. Biodiversity is critical for the functioning of ecosystems and the provision of ecosystem services, such as pollination. Globally, bees are important pollinators in both natural and production systems. Over 85% of the world's estimated 20,000 bees species are solitary, most of which nest in the ground. However, little is known about the basic biology of many ground-nesting bee species or how they are effected by landscape scale factors. I aim to investigate how local and landscape scale variables influence the abundance, diversity and nest-site selection of solitary ground-nesting native bees in the Northland and Waikato regions of New Zealand. I plan to 1) characterise the substrate of native ground-nesting bee nest sites and 2) assess the effect of landscape-scale variables and farm management practices on native ground-nesting bee communities. Understanding the basic biology of ground-nesting bees as well and their response to local and landscape scale variables is important for informing land management practices to conserve and restore pollinator biodiversity in the face of environmental change.