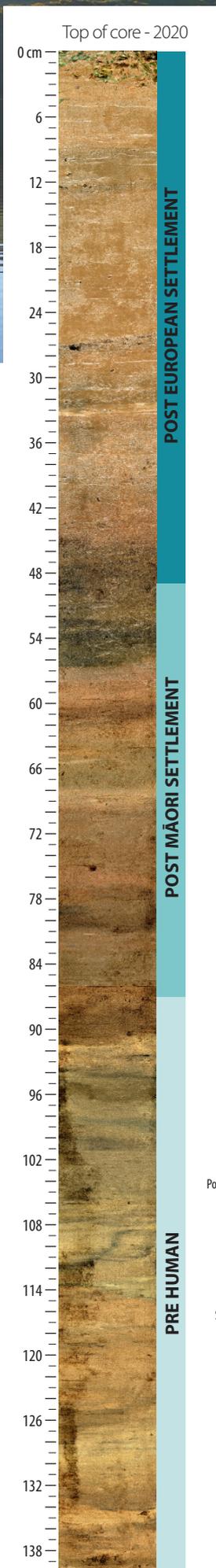




Lakes380

Our lakes' health past, present, future  
Me hoki whakamuri,  
kia haere whakamua



# TOMAHAWK LAGOON



**Region:** Otago    **Location:** Dunedin    **Coords:** 45° 54' 4" S 170° 33' 2" E    **Depth:** 1 m

The Upper Tomahawk Lagoon is one of two connected brackish water lagoons. The Upper drains to the Lower via a channel. The lower lagoon drains to the ocean and is landlocked at low tide. The catchment is largely farmed, and water quality is poor.

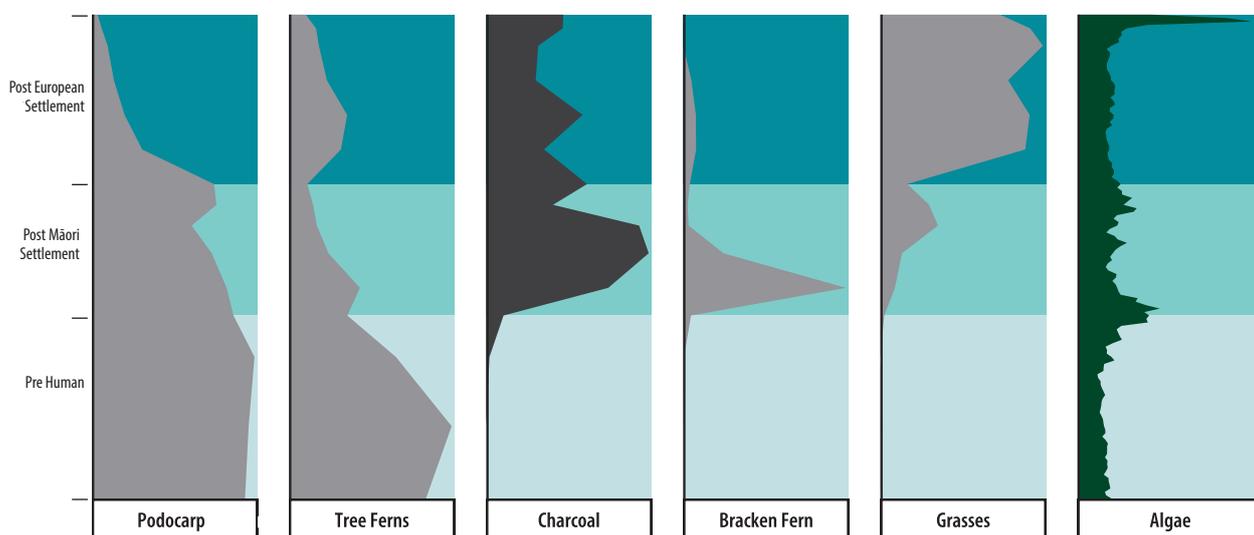
Initial results from the sediment core suggest that prior to human arrival the Upper Tomahawk Lagoon was surrounded by a lush forest comprised of native tree ferns and podocarps such as rimu and mataī.

After Māori settled in the region some vegetation clearance began. This is highlighted in the graphic below by increased burning (charcoal) and bracken fern pollen, which is often associated with landscape disturbance.

After European settlement most of the remaining podocarp forest was removed. The pollen of non-native species (including pine) appeared, and pastoral land (grasses) became the main vegetation type.

Algal concentrations remained relatively stable in this lagoon prior to European arrival but have increased markedly in about the last 50 years.

## POLLEN, CHARCOAL AND ALGAE LEVELS FOR THE PAST ~2000 YEARS



This graphic indicates the concentration of plants, charcoal or algae through time.