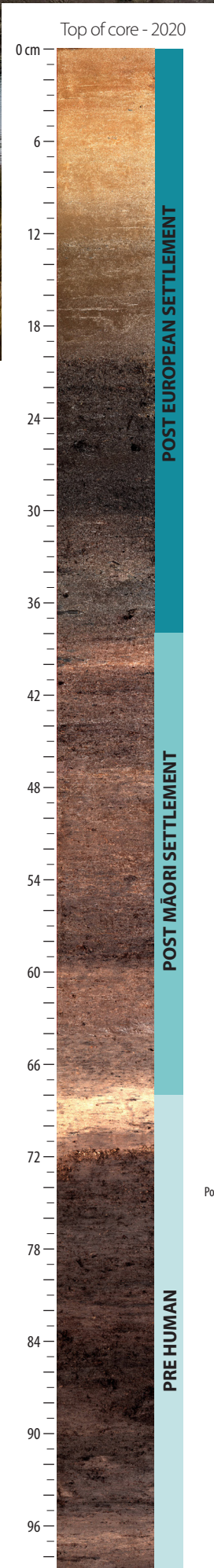




Lakes380

Our lakes' health past, present, future

Me hoki whakamuri, kia haere whakamua



HORSESHOE LAKE

Region: Hawke's Bay **Location:** Elsthorpe **Coordinates:** 39° 55' 12" S 176° 45' 39" E **Depth:** 3.2 m

Horseshoe Lake lies east of Tukituki River, in Central Hawkes Bay. The lake is a wildlife reserve and the surrounding farmland is being restored with native plantings. Prior to damming, the lake was horseshoe shaped.

Initial results from the sediment core suggest that pre human settlement Lake Horseshoe was surrounded by lush native forest abundant in podcarps (especially mataī, rimu and kahikatea), beech and coprosma.

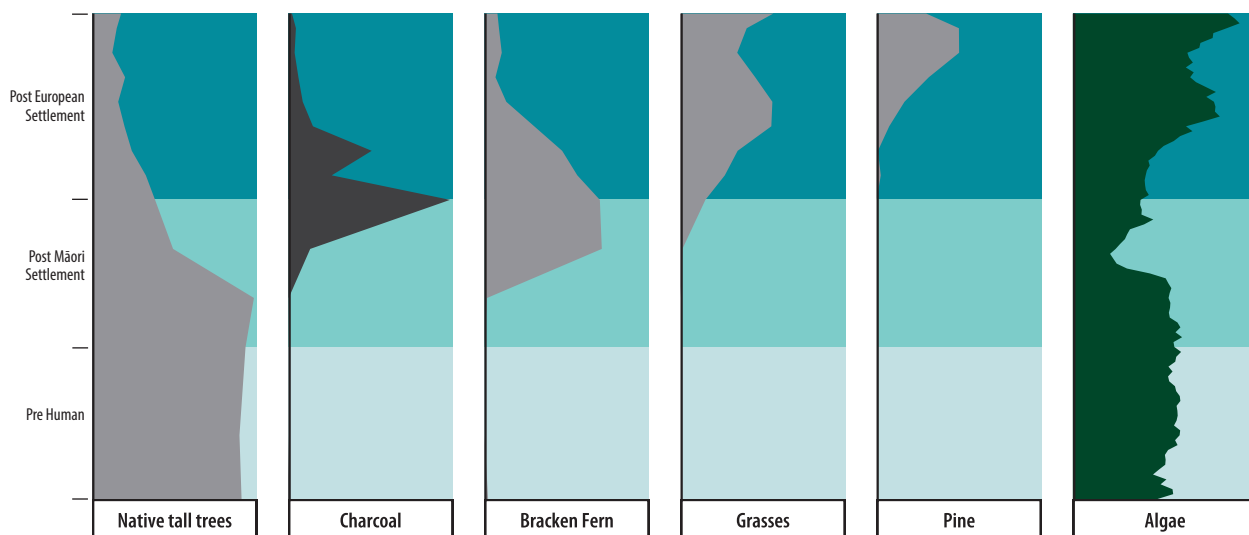
Post Māori settlement some forest clearance began. This is highlighted in the graphic below by charcoal (fire) and an increase in bracken

fern, commonly associated with landscape disturbance. Tall native trees declined steadily.

Post European settlement forest clearance continued. The native species were replaced by grasses and non native trees such as pine, planted in the region.

Algae have always been present in the lake at variable levels. There appears to have been a marked increase in the last ~100 years.

POLLEN, CHARCOAL AND ALGAE LEVELS FOR THE PAST ~1000 YEARS



This graphic indicates the changes in abundance of plants, charcoal or algae through time.