

# Natural history of the Marlborough Sounds



## Nelson/Marlborough

The Marlborough Sounds feature an abundance of secluded bays, islands, coves and sheltered waterways. The sounds were formed when sea levels rose and drowned a series of deep valleys after the last ice age around 10,000 years ago. At 42 kilometres long and with 380 kilometres of shoreline, Pelorus Sound (Te Hoiere) is the largest, followed by Queen Charlotte Sound (Tōtaranui), which boasts the popular and scenic Queen Charlotte track.

### People

Sheltered waterways with bountiful seafood and birdlife attracted waves of Māori migrations to the sounds, resulting in a mosaic of tribal groups. By around 1840 these were mainly Ngāti Koata, Ngāti Toa, Ngāti Kuia Rangitane and Te Atiawa. Maori sometimes carried their waka (large sea-going canoes) over low saddles between sounds to avoid long sea journeys and some of these short-cuts are still used.

Captain James Cook was one of the first Europeans to explore the sounds, making Ship Cove (Meretoto) his New Zealand base. Cook's scurvy grass was named after him because he used it to cure scurvy amongst his crew.

Māori cleared some forest, especially on the headlands and spurs above bays. Settler farmers and loggers, in the drier north and east especially, cut and burnt more than half of the native forest cover. Introduced browsing animals and predators continue to have severe impacts on the native plants and animals of the Marlborough Sounds.

Pelorus Sound J. Mazey

### Vegetation

Prior to the arrival of humans, most of the Marlborough Sounds was covered in forest dominated by beech trees (*Nothofagus*), with lush broadleaf forest in the moister gullies and on coastal flats.

Today, the area's vegetation is a complex mosaic of original forest remnants, pasture, exotic plantations, and formerly cleared areas that are in transition from simple to more complex ecosystems, a process called 'succession'. The diversity of vegetation types in the sounds also reflects the area's geology and topography, its maritime influence, past glaciation and sea-level changes. An extensive system of reserves protects examples of most plant communities.

Constant winds off Cook Strait have sculpted low, windswept vegetation along the coastal cliffs, dominated by herb and shrub species that can tolerate high salt levels. Forests along the outer sounds, where sea mists often gather, are lush and mossy and contain unusual assemblages of plant species. Seabird-roosting islands in the sounds also have unique plant communities.



While most of the sounds are too low to contain alpine vegetation, there are several interesting exceptions. Mt. Stokes is the highest peak in the Marlborough Sounds at 1100 metres above sea level. Although its vegetation has been severely depleted by goats and pigs, gentians, native daisies, eyebrights, buttercups, speargrass, tussocks and cushion plants can still be found there.

Alpine plants are also present in a highly mineralised

Gannet P. Reese



Native slug D. Veitch



King shags A. Cox



D'Urville Island K. L. Jones



belt along the western margin of the sounds known as the 'ultramafic zone'. These soils have metallic compounds that only support certain plant species, including distinctive species of herb, grass, sedge, fern, daisy and gentian.

## Wildlife

Common forest birds in the Marlborough Sounds include korimako (bellbird), tui, kakaruai (South Island robin), pīwakawaka (fantail), ruru koukou (morepork) and weka. Easily-seen shore birds include shags, terns, shearwaters, white-faced herons, kingfishers, oystercatchers and gannets. Predator-free islands in the sounds provide refuge for some of New Zealand's most endangered wildlife, especially the kākākāpō, kiwi, tuatara, native frog, takahe, gecko and giant wētā (see also the fact-sheet *Island sanctuaries in the Marlborough Sounds*).

## Threats

Past fires have modified large areas of the sounds, removing the forest and its inhabitants. The dry, sunny climate creates a continuing risk of wild-fires.

High numbers of feral deer, pigs, goats, and possums, straying cattle and sheep have a severe effect on native vegetation if not actively controlled.

Weeds are a major problem in the sounds, especially in places disturbed by human activity. When they mature, wilding pines can shade out native vegetation. Gorse, broom and Spanish heath also compete, with the mat-forming aquatic grass *Spartina* an invasive weed in estuarine areas.

## Conservation in the sounds

The Department of Conservation manages over 50 reserves in the Marlborough Sounds that cover more than 50,000 hectares and approximately 900 km of coastline. Sounds Foreshore Reserve, a riparian margin. These special areas are protected for their natural values, scenic beauty and historic interest. There are also a number of island wildlife sanctuaries, managed for the protection of New Zealand's most threatened species.

## Want to know more?

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