



Wakatipu landscapes

Otago



The journey from Queenstown to the Routeburn Valley takes in some of the most spectacular scenery in the District. Lake Wakatipu is an outstandingly clear, deep lake that changes dramatically with the weather, shifting from murky grey with whitecaps to a crystal clear blue with stunning reflections. The incredible scale of this landscape dwarfs the people within it, inspiring a sense of awe and appreciation for New Zealand's natural

A glacially carved landscape

The major force that has created the dramatic landscapes of the Wakatipu basin is glaciation, with a series of ice advances and retreats over about the last two million years. The oldest advances were the largest, excavating the deepest into the landscape and then getting progressively smaller. The last major advance 18,000 years ago reached as far as Kingston, with the top of the ice about 100 metres above present lake level.

Glaciation creates deep, steep-sided, U-shaped valleys, such as the one filled by Lake Wakatipu. Its uniformly steep sides are visible on the mountain slopes along the Queenstown to Glenorchy Road and extend far below the current level of the lake. The 380-metre deep lake also has a wide, flat bed where sediment has built up at the bottom of the U.

Lake Wakatipu
B. Smith

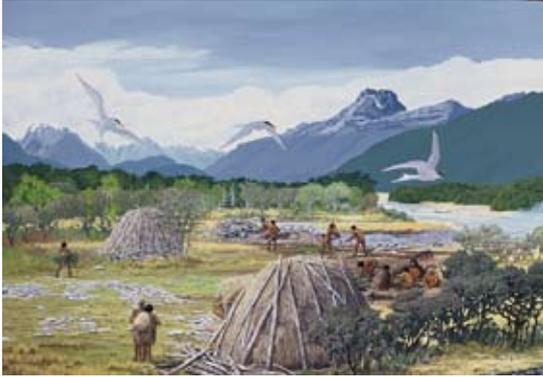
You may also notice the difference between the rounded forms of the hills within the Wakatipu basin, and the much higher, jagged peaks such as at Walter and Cecil Peaks. The rounded hills, like Mount Nicholas, were once covered by glaciers, smoothed off by the force of the ice but resistant against the glacier pushing through the landscape, whereas the sharp peaks have always been above the height of even the largest, older, glaciers.

After the last major period of glaciation ended, the subsequent weathering and the powerful action of streams and rivers and vegetation patterns have also shaped this landscape. For example, as the lake level dropped, the level of rivers feeding into and draining Lake Wakatipu had to drop, scouring down into the river beds creating wide outwash plains and the terracing visible all around the lake,

Between the Dart River and Mount Alfred, are some notable geological features called hillocks or 'kames', which are small, even-sided, cone-shaped hills that rise from the flat paddocks. The hillocks were formed by the accumulation of materials in channels under the snout of the Dart Glacier. Fine, wind-blown sediment, called loess, has been deposited on them, softening their outlines.



Human history



Artist's impression of the Māori camp on Dart River
Neville Peat

Māori visited the upper Wakatipu district initially as explorers with a hunter and gatherer lifestyle. Following the discovery and exploitation of pounamu (greenstone), the emphasis shifted to this resource, which was an increasingly valuable trade item with North Island Māori.

The mountains at the head of Lake Wakatipu, including Pikirakatahi (Mount Earnslaw), are

very significant to Ngāi Tahu people for their cultural, spiritual and historic associations. As part of its Treaty settlement with Ngāi Tahu, the Crown has formally recognised these associations, and it has given this area the special status of 'topuni', an area with outstanding Ngāi Tahu values that is also protected within the conservation estate.

European settlement in the Wakatipu basin began with William Rees and his family, who established a station at the head of the Lake in 1860. However, the lure of other resources such as gold, scheelite and timber brought many more people to the region from 1862. Tourism soon followed, and in 1882 commercial mountain guiding began on Mount Earnslaw/ Pikirakatahi. Tourists relied on boats and pack tracks until Glenorchy Road opened in 1962. Today, tourism is the primary industry in the region, and the maintenance of this industry is completely reliant on the protection of the area's outstanding natural landscapes.



Black-fronted tern
B. J. Harcourt

Vegetation patterns

Much of the land at the lake edge on the Queenstown to Glenorchy side of Lake Wakatipu is covered in regenerating shrubland and young forest with a high plant diversity, the best of which is seen at Rat Point. Most of the land below the road has not been farmed or burned for around 30 years. Eventually (in about 150 years), if this shrubland is undisturbed, it will become red beech forest. In drier areas with thinner soils, the vegetation will in time become dominated by mountain beech.

Away from the lake edge, if pasture is left unmanaged then either bracken fern or shrub species such as coprosma and matagouri will emerge. Both of these vegetation types will in time become shrubland, but the bracken fern will facilitate the regeneration of beech forest much more quickly than the coprosma/

Lake Wakatipu, toward
Glenorchy

matagouri vegetation. Pockets of mature beech forest are scattered through many of the mountain valleys in the Wakatipu Basin, and extensive forested areas are protected within Mt Aspiring National Park.

Above the shrubland and forest areas but below 1100 metres, short tussock and exotic grasses that are the result of repeated burning predominate. In the high alpine areas, a range of diverse plants can be found, including snow grasses, vegetable sheep and other specially adapted plants. All of the species that live in the high alpine zone must find ways to protect themselves from wind, snow, a lack of water, and freezing temperatures. Adaptations include deep roots, compact forms and leaves with thick, waxy coverings to prevent desiccation and to shed snow.

Conservation in the Wakatipu

Mount Aspiring National Park was formed in 1964. By 1990, Mount Aspiring National Park had almost doubled in size and it was declared part of Te Wahipounamu – Southwest New Zealand World Heritage Area, recognising the area's significance to global landscape conservation.

The Dart Valley is a stronghold of the yellowhead/ mohua, and endangered song bird. Often the mohua is the main bird song heard in the valley. Robins will hop on your boot to share your lunch.

Outside of the National Park, there are other important conservation areas. The three main Lake Wakatipu islands – Mātau (Pig Island), Wāwāhi-Waka (Pigeon Island) and Tree Island – are free of rodents and mustelids and therefore provide important opportunities for national species recovery programmes. The islands have cultural significance for Māori as they are said to have been part of the pounamu trail and a place to land canoes.

The huge, relatively unmodified braided river systems of the Dart and Rees Rivers provide habitat for a number of specialist birds, including wrybill, black-billed gulls, black-fronted terns, banded dotterels and oystercatchers. Weed infestations of the riverbeds and animal pests such as stoats and feral cats threaten these unique birds. The Glenorchy lagoon is the only large wetland in the Wakatipu region and it is also home to a wide range of plants, birds and freshwater fish.

Further information

To learn more about the Lake Wakatipu area, contact the Queenstown Department of Conservation office phone – (03) 4427933, email - queenstownvc@doc.govt.nz or visit www.doc.govt.nz.

