O 500m 1000m OKĀRITO LAGOON KAYAK TRAIL O KĀRITO LAGOON (3240 HA) OKĀRITO RIVER DELTA OKĀRITO RIVER OKĀRITO RIVER

PADDLING A WETLAND WILDERNESS

The Ōkārito Lagoon is a wild, wet haven for nature. Paddling its main channel and the rivers that feed into it can reveal many surprises: shy birds hide in rushes; rare, white waders fish in its waters; our tallest trees tower above the lagoon and our highest mountains reveal themselves – occasionally – creating a stunning snowy backdrop.

This interpretive kayak trail follows the main lagoon channel before diverting kayakers up two optional river routes – the Ōkārito River Delta Trail and the closer Tidal Creek Trail.

You will see a series of numbered floating markers in the water signifying points of interest described in this guide. The views change depending on the weather, but whatever the mood there is a charming quality about this lagoon.

Enjoy your close encounter with nature on the waters of Ōkārito Lagoon – New Zealand's largest unmodified coastal wetland (3,240 ha).

WORD OF WARNING

Don't forget that Ōkārito Lagoon is tidal. Kayakers should stay upstream of the wharf building at all times. Beyond this point the flow and shifting mouth of the lagoon can be dangerous for people and boats.

Contact Okarito Kayaks for further advice, tide information and kayaking tips.

Safe paddling.

PADDLING TIMES

Times vary depending on which way the tide is going.

Wharf Shed – Tidal Creek Trail turnoff

Incoming tide: 15 min
Outgoing tide: 30 min

Wharf shed − Ōkārito Delta Trail turnoff **②**

Incoming tide: 20-40 min Outgoing tide: 1 hr



Department of Conservation *Te Papa Atawhai*

Paddling the main channel...

FROM OKĀRITO WHARF SHED

As you glide off from Ōkārito's wharf shed, you may notice the old wooden wharf piles – a reminder that Ōkārito was once the West Coast's third largest port. Gold discovered on the beaches south of here lured thousands of diggers and prospectors, followed by storekeepers, publicans, surveyors and adventurous families. In the mid-1860s this port was alive with people, vessels and freight.

A harbourmaster was kept busy, trying to direct steamers with white flags and signal balls over the often treacherous bar at the lagoon mouth. Ships arriving here were a lifeline for the isolated Ōkārito community who, at that time, relied on their own self sufficiency and the packhorses pounding the coastal highways.

Visit the wharf shed during your stay and learn more about the story of Ōkārito.



Australasian crested grebe/kāmana is a threatened species in New Zealand, but you may be lucky to see one on Ōkārito Lagoon.

(1) CAN YOU SEE THE MIGHTY ALPS?

The Southern Alps/Kā Tiritiri o te Moana (the frothing waters of the ocean) are the backbone of the South Island. This dramatic 500-km-long mountain range was forced up millions of years ago along the Alpine Fault that stretches from Fiordland in the south to Nelson Lakes in the north east. The Alps act as a huge barrier to the moisture-laden westerly winds roaring in from the Tasman Sea. Metres of rain are dumped on the West Coast annually, and masses of snow feed the 140 glaciers that still exist in Westland Tai Poutini National Park.

If you look to your right, you are (hopefully) viewing New Zealand's highest peak Aoraki/Mount Cook (3,724 m), and the second highest, Mount Tasman/Horo Kōau (3,497 m), flanking it to the left. Māori believed that this mountain resembled the shag (cormorant) with its wings outstretched to dry.

Look out for the pied and little shags/kōau – regular visitors to the lagoon.

Looking north up the lagoon you may see Mount Adams – the dominant snowy peak in view.

Little shaq/kōau

(2) WADERS ON THE WATER

As you paddle up the main channel you may notice how shallow the lagoon actually is (especially at mid to low tide). These estuarine waters are alive with crabs, shellfish, snails, worms and fish — attracting up to 40 species of shorebirds and migratory waders.

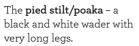
As the tide recedes, flocks of waders appear along the tide line here. You may encounter:



White heron/kotuku

The unmistakable white heron/kōtuku, poised elegantly ready to spear a fish or baby eel/tuna. Kōtuku, found throughout Oceania and Asia, are now rare birds in this country. They have selected a forest just north of Ōkārito Lagoon as their only New Zealand breeding site.

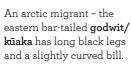




sites is alongside the

Waitangiroto River.

kōtuku on the edge of the





kōtuku-ngutupapa



Pied stilt/poaka



Eastern bar-tailed godwit/kūaka

③ GLACIERS TO WETLANDS



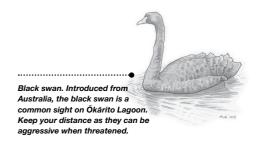
The map shows the extent of the last glacial ice advance 18,000 years ago. The black line marks the location of the Alpine Fault.

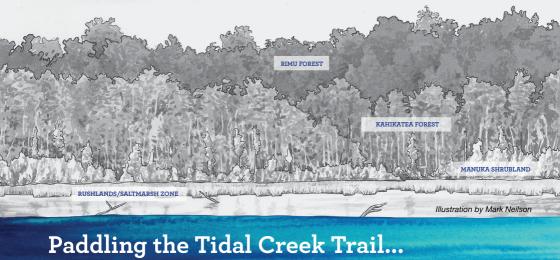
GNS Science

During the last ice advance – 18,000 years ago – large glaciers smothered this landscape, their icy tongues reaching out 10 km from the present coastline. As the ice retreated, distinctive ridges of moraine (glacial-carried rocks and debris) were left behind on the coastal lowlands. On the map, you can clearly see the moraine ridge that curves around behind $\bar{O}k\bar{a}$ rito Lagoon. This marks the sides of the ancient glacier as it carved its way out to sea along what is now the Whataroa River bed

Looking north, you can see evidence of this extensive low-lying moraine ridge that has entrapped the waters of the lagoon at its farthest end.

The open waterways, swamps, lagoons and estuaries that formed between the Alps and the Tasman Sea once the glaciers melted are the most extensive and significant natural freshwater wetlands in the country.





Leave the main channel and follow the yellow route with interpretive trail markers leading up Tidal Creek to the bridge. Alternatively, you may continue on the main channel up to the Ōkārito River Delta Trail and pick up the interpretive trail again there.

(4) FROM RUSHES TO RIMU

As you start paddling up Tidal Creek you will note distinct changes in vegetation, from the low-growing 'rushlands', regularly swamped with sea water in the saltmarsh zone, to the shrubs and tall forests on drier land beyond the reach of the tides. From the water's edge, sea rush and jointed rush/wīwī dominate, before giving way to a taller shrubland of mānuka accompanied by toetoe, flax/harakeke and small-leaved coprosma species. Only in extreme high tides or storms does salt water reach the shrub line.

The shrubland then grades into stands of kahikatea (New Zealand's tallest tree), a swamp dweller that can establish itself in fresh silt deposited after floods.

Mature rimu forest features beyond, favouring the drier glacial moraines and terraces that surround the lagoon. As you paddle further up Tidal Creek these terraced rimu forests start to dominate, their survival remarkable given the intensive rainfall and leached infertile soils.

Read more about the rimu and kahikatea trees at point 9 described on the Ōkārito River Delta Trail.

5 TWO SHY SPECIES

Amongst the swords of reeds and rushes on the edge of Ōkārito Lagoon roams the Australasian bittern/matuku hūrepo (Botaurus poiciloptilus). This solitary, heron-like bird is well camouflaged. To avoid predators, it can mimic a tall reed by stretching out its neck. Bitterns usually feed at night, stalking fish, frogs, eels and insects. Matuku hūrepo are 'globally endangered' due to the extensive loss of the world's wetlands. Their presence often indicates the health of a wetland.

The fernbird/mātā (Bowdleria punctata) is New Zealand's most consistent inhabitant of bogs and wetlands. A small speckled bird of the 'grassbird' family, its call is usually just a short 'uu-tick' rather than a melodious song. Often heard and not seen, this secretive little bird thrives in sedges, wire rush, ferns and mānuka scrub and occupies both freshwater and tidal wetlands. Its long tail resembles a fern-one of the theories given for its name.

Listen out for mātā in the saltmarsh zones around Ōkārito Lagoon.



Australasian Bittern/Matuku hūrepo Illustration by Mark Neilson



(6) BENEATH THE MURKY WATERS

As you paddle upstream the water blackens beneath you. Tannins leaching from decaying vegetation in the rainforests and swamps are washed by heavy rainfall into the waterways, creating an acidic tea-stained water flow. These dark murky waters make excellent habitat for many of our native fish species, including the longfin eel/tuna, which quite likely lurk beneath your boat.

LONGFIN EEL/TUNA



Longfin eel/Tuna Illustration by Mark Neilson

The eel/tuna is a wetland icon. Of our three species, it is the longfin eel/tuna (Anguilla dieffenbachii), that is found nowhere else in the world. Secretive by day, they emerge at night using their powerful sense of smell to hunt snails, worms, insect larvae, fish and sometimes small birds. Longfin eel/tunas are thought to be the world's biggest freshwater eels, growing up to 2 m with a hefty weight of 25 kg. Near the end of their lives they migrate thousands of kilometres to the tropical Pacific to spawn. Females release up to a million

eggs prior to death. Their leaf-like larva floats, hatches and swims in the ocean currents for over 18 months before returning to our rivers and wetlands in spring as small transparent glass eels (elver).

Eel/Tuna are a taonga (treasure) to Māori and an important traditional food source. Ökārito Lagoon was a well-known mahinga kai (food resource) and eel/tuna were caught by ingenious methods of trapping or netting. They were often dried and saved for overland journeys.

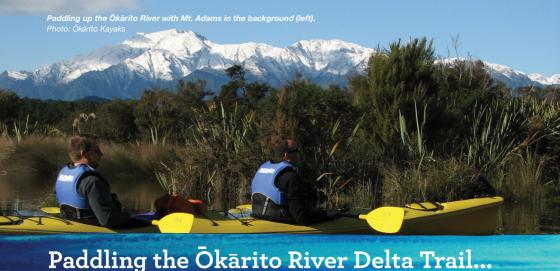
It was the eel/tuna that, more often than not, kept many early European explorers alive. Thomas Brunner encountered a large Māori pā at Ōkārito when he visited in 1847, and stated:

"... That these places abound in eels I had full proof during my visit here, the diet being nothing else, and was served out in liberal quantities, to dogs as well as Christians, three times a day."

A WORD OF WARNING...

Be aware that shallow mudflats become exposed at mid to low tide.

Don't run your kayak aground!



Leave the main channel and follow the red route, which will lead you up one of the Ōkārito

Leave the main channel and follow the red route, which will lead you up one of the Okārito River channels deep into the temperate rainforest. Look out for the interpretive trail markers along the way.

(7) THE MUDDY DELTA

You are at the entrance to the southernmost channel of the Ōkārito River. The river drains lakes Wahapo and Māpourika, just west of here, and is the major source of fresh water to the lagoon. Its waters carry vast quantities of silt, eroded from the alps, which is dumped here at the mouth, creating a fertile muddy river delta. Over time, low-lying densely vegetated islands form with rushes, flax harakeke, cabbage tree/ti kōuka and kōwhai plants establishing themselves in the riparian zone (the strip between water and dry land). These zones provide fantastic breeding grounds and refuges for birds and fish.

Read about two 'shy bird species' that occupy riparian zones around the lagoon. Refer to point 5 on the Tidal Creek Trail.

As you paddle, look and listen out for nectar feeders like the wood pigeon/kererū, tūī and bellbird/korimako. In late summer, they feed on the flowering flax and in spring take nectar from our yellow national flower, the kōwahi. In winter you may see the red splash of the climbing rātā scrambling over trees and shrubs – another sweet treat for forest birds.

8 A WHITEBAIT/INANGA BREEDING GROUND



Juvenile inanga/whitebait Illustration by Mark Neilson

Whitebait/Inanga (Galaxias maculatus) are small silvery-white native fish (with juveniles about 50 mm long). They are just one

of five freshwater galaxiids that make up the whitebait catch in spring. For humans as well as birds, this little fish has long been a delicacy. Adult whitebait rely on estuary vegetation, like rushes, to spawn a mass of eggs. About a month later they hatch and are carried out to sea on a spring high tide where they spend the winter before swimming back to freshwater in shoals. It is then that the whitebaiters line the rivers and lagoon mouths to scoop up this delicacy in their nets.

Like many of our native fish species, whitebait are under threat. Habitat loss from drainage and pollution of wetlands and waterways, and competition from introduced specie, have greatly contributed to this perilous state. Fortunately, as part of the Department of Conservation and Air New Zealand Environment Trust's 'Glaciers to Wetlands



Tūī feeding on flax nectar Tama Pugsley, Department of Conservation



New Zealand wood pigeon/kererū feeding on kowhai flowers Department of Conservation

Restoration Project', whitebait spawning areas around Ōkārito Lagoon, like this one, have been targeted for plant restoration and weed control to ensure future healthy breeding grounds.

(9) LOFTY GIANTS

You are paddling through some of New Zealand's most lush and intact temperate rainforests. Towering above the waters edge are the lofty forest giants – kahikatea (Dacrycarpus dacrydioides) and rimu (Dacrydium cupressinum).

Two distinctive native conifers, they belong to the ancient family of podocarps that means 'fleshy-foot', as they bear a naked seed on the end of a fruity foot.

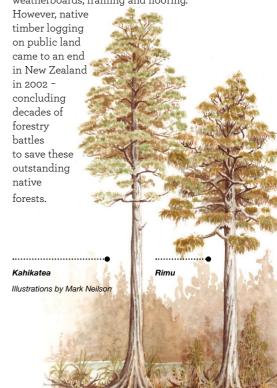
If you turn to paddle back downstream you will notice on your right an almost pure stand of kahikatea swamp forest; yet on your left rimu and broadleaf forest dominates. The difference lies in the land elevation, dampness and soil fertility beneath their feet.

On your right, the dense young stand of kahikatea has regenerated en masse in the thick fertile silts deposited after a flood event wiped out the old forests.

The kahikatea is New Zealand's tallest native tree, growing to heights of up to 65 m. Fortunately they have a surprisingly shallow root system that twists and interlocks with neighbouring tree root, effectively keeping them upright and providing them with oxygen in this silty, soggy environment. Further upstream, where fewer catastrophic events

have occurred, the kahikatea forest noticeably ages, some trees reaching 500 years old.

On your left is the mixed rimu-broadleaf forest, growing on the less fertile glacial moraine terraces that step back from the lagoon edge. Emergent rimu can reach up to 35 m and live up to 1,000 years. Juvenile rimu are easily spotted by their long weeping delicate foliage. The most widespread native conifer in New Zealand, the rimu provided a highly valued timber for weatherboards, framing and flooring.





Paddling back down the lagoon channel ... for centuries

Getting closer to the end of the lagoon experience you may notice the large island on your right where, in times gone by, the local horse races and sports days were held. It was also the location of Ōkārito's first cemetery, as Bony Murphy remembers:

"... the annual racing carnival was held on the island, and we children climbed on the grave-stones to watch the race as it circled the hill and thundered down the straight for home and the winning post ... on the evening of the racing carnival, a race ball was held and everyone from near and far attended."

This lagoon has for centuries been a valuable natural resource for Māori and European alike. As well as being a rich mahinga kai (food gathering site), flax and timber were milled and exported from the wharf in the late 19th and early 20th centuries. Nowadays it is more renowned for its whitebait fishery, its uninterrupted mountains-to-sea scenery and rich wetland wilderness attracting people like you to 'get out amongst it'.

Westland's glaciers to wetlands landscape is one of national and international importance, thanks to its natural, ecological and scenic diversity.

ENJOY WESTLAND'S WETLAND WILDERNESS.



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