Habitats of
The Abel Tasman National Park

There are a number of different habitats in the Abel Tasman National Park. Some are small areas and some are large. You can meander through coastal forest before being led back to the sea and the idyllic golden sands. The inland part of the park will take you through lush beech forest and beautiful rock pools with clear, cool water. Within these habitats you will find some of New Zealand's finest birds, invertebrates and plants. Listed below are Abel Tasman habitats and their locations. Find out more about each habitat on their respective pages.

Estuary

Estuaries are special places where rivers meet the sea. You can see these at the Marahau estuary boardwalk, Torrent Bay, Awaroa, Anchorage, Frenchmans Bay, Sandfly Bay, Bark Bay & Mosquito Bay.

Wetlands

In New Zealand, wetlands support the greatest concentration of wildlife out of any other habitat. In the Abel Tasman you will find these at Anchorage, Ontahuti, Awaroa and Waiharakeke.

Forest

The type of forest in the Abel Tasman is beech forest. It gifts us the sounds of our native birds, fragrance of the honeydew and gorgeous hues of green and brown from the trees. The beech trees provide food for our native invertebrates and fungus. Beech forests are the largest remaining indigenous forest type in New Zealand.

Freshwater

Rivers and streams of the Abel Tasman flow down through granite rock to the coast all along the park.

Marine

The marine habitat provides a home to our seabirds, mammals, fish and plants. The Abel Tasman boasts Tonga Island Marine Reserve.

Dunes

Dune habitat in the park is limited because most beaches have forest to the high water line. Apart from occasional small wave formed dunes at some bays such as Anchorage, the most substantial dune habitat in the park is on sandspits. These are located at Porters Beach, Apple Tree Bay, Torrent Bay, Bark Bay, Sandfly Bay, Onetahuti Bay and Awaroa.

PROJECT JANSZOON
Together restoring the Abel Tasman

Department of Conservation
Te Papa Atawhai

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Wetlands

Wetlands are areas that are saturated with water, either permanently or seasonally. They are areas where water is the primary factor controlling the environment and associated plant and animal life. They can be freshwater or estuarine or both!

Wetlands act like the kidneys of the earth, cleaning the water that flows into them. They trap sediment and soils, filter out nutrients and remove contaminants; can reduce flooding and protect coastal land from storm surge; are important for maintaining water tables; they also return nitrogen to the atmosphere.

Wetlands support plants and animals specially adapted to living in wet conditions. Many of NZs wetland plants and animals are not found anywhere else in the world. In the Abel Tasman National Park you will find 'Swamp forest' plants such as Kahikatea at Hadfields clearing by Awaroa. Other types of wetland plants live in 'intertidal forests' such as mangroves and peatland forests such as silver pine.

In the past, those soggy areas of land were often drained and 'put to better use' but now we know they are essential and one of the world's most productive environments.

Human activity provide the biggest threat to wetlands. These include sand and gravel extraction, pollution by excess run-off, stock grazing, reclamation, loss of vegetation in surrounding catchments, wetland drainage and depleted supplies of water resulting from pine forests.

Estuaries

Estuaries can also be called lagoons, harbours, inlets, sounds, river or stream mouths and wetlands. They are are dynamic, rich ecosystems, where freshwater from the land, carried by streams and rivers, meets and mixes with saltwater from the ocean.

Estuaries provide habitat and feeding grounds and for many fish, birds, shellfish, mammals and other wildlife.

In the Abel Tasman National Park, estuaries provide habitat for species such as matata/fernbird, waders and ducks.

Estuaries are fundamental to many of our coastal fisheries as they provide important habitat for spawning and allow juveniles to grow.
Estuaries maintain water quality in the sea by filtering out sediment and nutrients. They also act as flood regulation to protect the environment behind it.

Many of New Zealand's estuary edges have been filled in or drained for farms, factories or housing. Unless estuaries have space around them, as the sea level rises due to climate change, estuaries will also be squeezed into smaller areas and we will lose valuable habitats.

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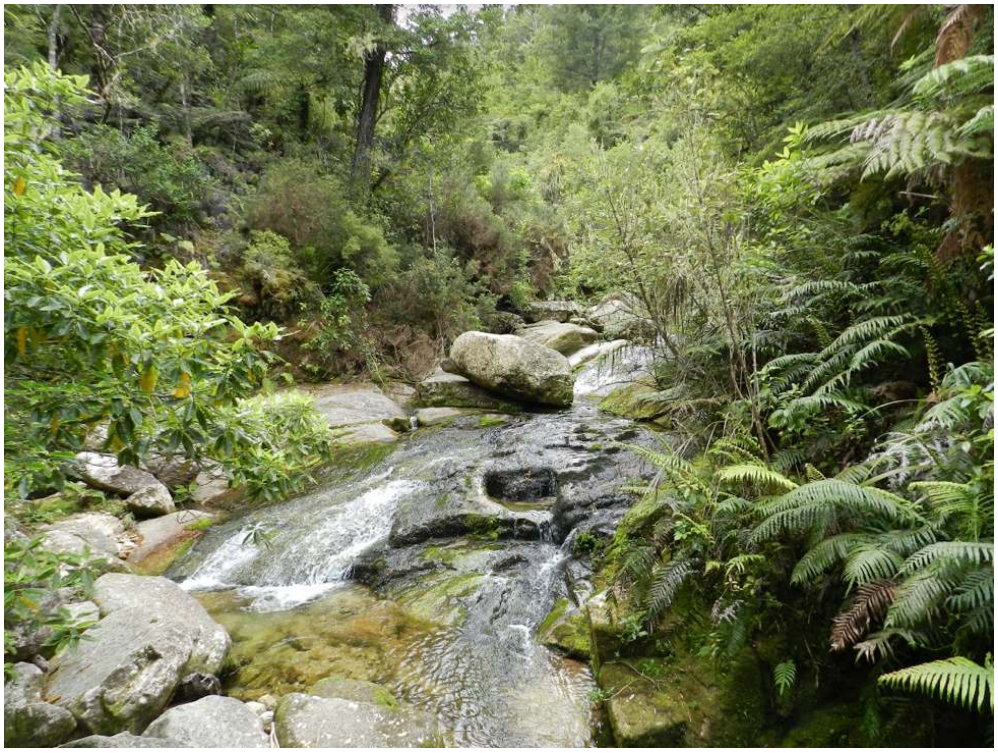
Photo Apple Tree Bay estuary - credit Amber Tate

Freshwater



New Zealand's freshwater habitats range from glaciers and seepages in the mountains, down to lowland rivers and streams that flow into estuaries. They include lakes, rivers, streams, some wetlands, cave systems, geothermal areas and underground aquifers.

Freshwater ecosystems contribute to biodiversity, the economy, recreational opportunities, cultural significance and our well-being.
Freshwater is used by a wide variety of native plants and animals. Some of these are unique to New Zealand and often highly specialised to the habitats they are found in.

Species living in freshwater habitats in the Abel Tasman National Park are galaxids (whitebait), yellow eyed mullet, long fin & short fin eels, torrent fish, bullies, lamprey black flounder and a multitude of invertebrates. The Abel Tasman is a stronghold for galaxids as there are no predators in the park e.g.trout.

Our freshwater ecosystems are impacted by changes in the water cycle, drainage, pollution and sedimentation, nutrient enrichment, deforestation and invasion by pests. These impacts have had significant consequences for our freshwater biodiversity which is vulnerable to invasion, interbreeding, overharvest and habitat loss and degradation.

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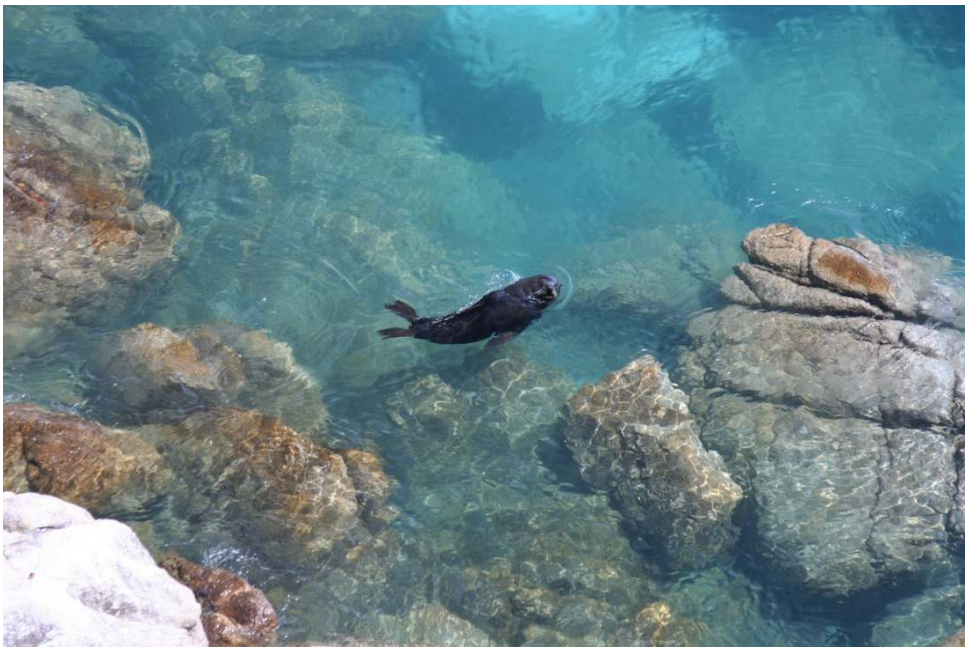
Marine



Our rich and complex marine environment is subtropical - subantarctic and contains over 15,000 known species. Our isolation means that many of these species are not found anywhere else in the world.
New Zealand has a rich and diverse fauna of marine mammals.

Almost half the world's cetaceans (whales, porpoises and dolphins) have been reported in our waters. For example, endemic Hector's dolphins (found nowhere else), rare beaked whales, New Zealand sea lions (found only in our southern waters), and the widely distributed New Zealand fur seals/kekeno.

Marine fish found in the Abel Tasman National Park are tarakihi, spotty, goatfish, blue cod, butterfly perch, scarlet wrasse, banded wrasse, blue moki, marblefish, leatherjacket, marblefish, sweep, red moki, were often observed, but were seldom common at sites. Butterfish, sea perch and magpie moki were sporadically seen as individuals at some sites. Crayfish, kina, pāua & scallop.

New Zealand is considered the seabird capital of the world, with remarkable and unique seabirds. More than a third of the 80 or so species of seabirds that breed in New Zealand are endemic, or found nowhere else. Examples of endemic seabirds in the Abel Tasman are fluttering shearwaters and spotted shag.

Tonga Island Marine Reserve in Abel Tasman National Park covers an area of 1835 hectares, extending one nautical mile (1852 metres) offshore from the mean high water mark of Tonga Island, and the coast between Awaroa Head and the headland separating Bark Bay and Mosquito Bay.
An artificial reef by way of an old ship, is going to be sunk in the Abel Tasman. This will provide refuges for all species, that can be harvested as they move between the structures. This will not only benefit the ecology of the bay but also sustain and improve fishing opportunities for small scale fishing operations in the bay.

Our marine habitat is under threat by sedimentation, contaminants & pollution, bottom towed devices, rubbish and human development.

Department of Conservation, *te papa atawhai.* Trial indicators for an ecological integrity assessment (EIA), Abel Tasman coast. Davidson Environmental ltd. abeltasmanecotours, *Project Janszoon 2018. Photo credit: Chris Goliding.*

Forests

Forests are rich abundant habitats full of trees and shrubs and all kinds of animals. Before people arrived in New Zealand, 80% of the land was covered in dense forest. Now only 24% of land is native forest.

Forests are vital to our lives and the natural systems that sustain us. They protect the soil from erosion and reduce flooding, cycle water between the soil and atmosphere and help make rain, produce oxygen for us to breathe and absorb carbon dioxide so are valuable "carbon sinks" to help counter climate change. Our native forests are also popular tourist sites and help to boost our valuable tourism industry.

Two of the main types of native forest in New Zealand are beech and podocarp-hardwood. The Abel Tasman National Park is a beech forest, and the only national park in NZ with all five varieties of beech tree. These are black beech, red beech, silver beech, mountain beech and hard beech. The species of beech growing will depend on altitude and other environmental factors. Three species of native mistletoe depend on beech forests for their survival and all three species are threatened with extinction from possum browse. The beech strawberry fungus is only found on silver beech and a group of fungi, known as mycorrhizae, enjoy a mutually beneficial relationship with beech trees.
The beech scale insect plays a vital role in the food supply for a range of native bird and insect species. The native insect lives in the bark of beech trees drawing off the sap. The insect then excretes sugary liquid drops, known as honeydew.

Our forests are under threat from land clearance, fire, disease and introduced animals such as wasps, possum, deer and pigs.

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Dunes

Coastal sand dunes act as filters for water, enhancing and maintaining coastal water quality. They also give protection to the land behind, acting as a buffer against eroding wave action. Sand dunes are formed at the interface between the sea and land.

The form of dune systems will be dictated by a number of factors, including the shape of the coastline, shape of the beach, currents and swell of the ocean, prevailing wind, frequency of storm events, and particle size of the sand.

One of the most important things to realise with the coastal and dunal environment is that it is dynamic, like the forces that shape it, so these environments are always changing. The 2018 storms in the Abel Tasman have reiterated this, as the dunes here are formed by wave action as opposed to wind action. North facing beaches like Medlands and Anchorage were worst hit and some of the plantings at these sites were washed away.

Native wawatai/spinifex survived Cyclone Fehi at most dune planting sites but in some cases it was buried beneath sand deposits. Spinifex can withstand storms, winds and king tides because it's adapted to the changeable environment of the dunes. It has a very deep root system which helps stabilise the dunes and will re-establish. Other native dune plants are pīngao/golden sand sedge, wīwī/knobby club rush, kōkihi/beach spinach, wī/silver tussock, tātaraheke/sand coprosma and horokaka/native ice plant.

Both natural processes and human impacts can easily damage sand dunes. These include erosion, earthquakes, storms, fire, decay, neglect, and increasing pressures of visitor use and facilities.

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