

Overview of Rangitai ki wetlands

Wetlands are an important, but diminished resource in the Bay of Plenty Region with just 2-3% of the original 41,000 ha of freshwater wetlands remaining. Much of that original wetland once covered the wide coastal Rangitai ki Plains, and extensive areas on the lowland plains at Pongakawa and Katuna.

These fertile plains extend over 27,000 ha between Matata and Whakane, stretching from the coast to Kawerau, where the 7000 year old Putauaki (Mt Edgecumbe) is a constant landmark as you travel around the Plains.

These flats are the original alluvial flood plains of the Rangitai ki, Tarawera and Whakane Rivers. In 1890, the area was a dense thicket of flax, raupo, manuka, jointed rush and swamp vegetation, with large areas of peat bog vegetation, comprising manuka, sedges, wire rush, giant cane rush, and tangle fern. Kahikatea and pukatea swamp forest grew in seasonally flooded areas at the bog edges.

Only fragments of this wetland landscape now remains. Large scale swamp conversion began in 1890's to provide land for settlers, with extensive river diversions, stop banking and drainage undertaken over successive years. Most of the wetlands were drained, and the remaining fragments isolated from their water source and each other.

Today the plains support fertile dairy farms, horticulture and grain fields, maintained by a complex network of drainage schemes including 328 kilometres of canals and drains. Careful management of this network is necessary to ensure that the remnant wetlands are not deprived of an adequate water supply. Many are now perched above farmland, with weirs and bunds to retain minimum water levels and reliable water supply.

This guide introduces you to a number of wetland types, including some of the best remaining examples in the Rangitai ki Plains area.



Matata wetland

The Tarawera eruption in 1886 • A tsunami in 1960 • A magnitude 6.3 earthquake in 1987 • Severe floods in July 2004 • A storm and landslide in 2005 that flooded the Matata township and filled part of the western lagoon with debris.

Some remaining wetlands are under formal protection, but many are threatened by pressures from inappropriate land use practices and development, as well as invasive weeds and animal pests. Sites being restored include Matata Lagoon, Awaiti Wildlife Management Reserve, and Lower Katuna Wildlife Management Reserve near Te Puke.

A century of change

‘The Rangitai ki Swamp is now the ‘Rangitai ki Plain.’ The change in title represents a transformation which has brought a far-spreading area of marsh and lagoon and creek under cultivation and habitation, a region of industry and wealth, the home of scores of prosperous settler-families. Where once we saw nothing but a flax and raupo wilderness, threaded by slow muddy water courses and shining with lagoons, the haunt of wild ducks, there is now a wide expanse of rich grass land, with its grazing dairy herds, its plantations, orchards and homesteads. The eel-swamps have been unwatered with scientific skill, by canals and a network of deep drains; river courses have been straightened, and motor launches buzz along where once Maori canoes crept silently along the narrow crooked creeks. Across this redeemed fern country between the Awa-te-Aua estuary and Matata and the lower Whakane, the railway goes to-day to its terminus under the hills at Taneaia...’ Extract from: *The New Zealand Railways Magazine, Volume 3, Issue 8 (December 1, 1928)*

The plains are no stranger to natural hazards either, many of which result in re-flooding of the former swampland, including

What is a Wetland?

A wetland is an area where water occurs at or near the ground surface for all or part of the year, and has plants and animals adapted to living in permanently or seasonally wet conditions.

Wetlands are diverse ecosystems, with the different types determined by their water – its amount, depth, permanence, temperature, chemistry, salinity and source (groundwater, surface water, rainwater, seawater or a combination).

New Zealand wetlands include;

- Swamps, bogs, fens and tarns
- Lakes, rivers and streams
- Estuaries and intertidal areas
- Geothermal pools
- Underground wetlands

In the Rangitai ki Plains area, the main wetland types are swamps and estuaries. Bogs were once a major component but no examples remain here today.

Swamps are freshwater wetlands with large areas of open water, or shallow or damp areas with emergent vegetation. Swamp vegetation includes trees such as swamp maire, cabbage tree and kahikatea, flax, raupo reeds, and sedges such as *Carex* species.

Estuaries are saline (salty or brackish) wetlands that are subject to regular tidal inundation and freshwater flushing from streams that enter them. Many estuaries have been degraded by stock grazing, sediment input, reclamation and invasion by exotic weeds such as *Spartina*.

Wetlands are a forgotten habitat and many people under-rate their importance. They have very high recreational values, and perform vital ecosystem services such as improving water quality and reducing flood risks. They support a greater diversity of native birds, fish, invertebrates and plants than most other habitats. They are of cultural and spiritual significance to Maori, providing food, harakeke (flax) for weaving and other materials.

The National Wetland Trust was established in 1999 to increase the appreciation of wetlands and their values by all New Zealanders.

The Trust aims are to:

- Increase public knowledge and appreciation of wetland values
- Increase understanding of wetland functions and processes
- Ensure landowners and government agencies commit to wetland protection, enhancement and restoration

To find out about other trail guides in this series see www.wetlandtrust.org.nz

The National Wetland Trust wishes to thank the following for their support in producing this brochure.



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Fauna and flora of Rangitai ki Plains wetlands and Ohiwa Harbour

- Nearly 40 species of water birds, including New Zealand dabchick at Tumarua Lagoon, Matata Lagoon and Lake Tamareni, banded dotterel, white heron, reef heron, banded rail, Australasian bitern, and fernbird.
- Five threatened native freshwater fish species: giant kokopu, dwarf galaxias, longfin eels, short-jawed kokopu and lamprey.
- The largest population of giant kokopu in north-eastern New Zealand in the Rangitai ki River.
- Abundant shortfin eels and common bully in Matata Lagoon, along with inanga, common smelt, banded kokopu, giant bully, parore, grey mullet and yellow-eyed mullet.
- Short and longfin eels, common bully, red-finned bully, giant bully, inanga, lamprey, giant kokopu in some of the drainage canals and streams.
- Colonies of the rare ferns *Thelypteris confinis* and *Cyclosorus interruptus* at several sites including Tumarua Lagoon.
- Ohiwa harbour is a 2,800 ha shallow estuary with inter-tidal seagrass beds, saltmarshes, mangroves and tidal flats protected by the Ohiwa and Ohawa sand spits. It is a nationally and internationally significant site for native flora and fauna, including:
 - Migrant birds including bar-tailed godwit, South Island pied oystercatcher, red knot, New Zealand dotterel, banded dotterel and pied silt.
 - Some of the few mainland breeding colonies of black-billed and red-billed gulls in the North Island.
 - Resident birds including banded rail, variable oystercatcher and fernbird.
 - Important fish species, including kahawai, trevally, gumard, flounder, whitebat and eels.
 - Traditional and customary Maori fisheries for tuna (eel), kokopu, lamprey, inanga (a whitebat species), koura (freshwater crayfish) and kakahi (freshwater mussels).
 - Close to the southern limit for mangroves on the east coast.
 - Native vegetation sequences not found elsewhere in the district.

National Wetland Trust Trail Guide:

Nukuhou Saltmarsh, Ohiwa Harbour



Rangitai ki Plains and Ohiwa Harbour, Bay of Plenty Region



Rangitaiki Plains and Ohiwa Harbour Trail: Route details

Route description: This trail is a driving route that takes you to a range of wetland types on the Rangitaiki Plains and Ohiwa Harbour, including an estuary, a remnant of former swamp forest, two lowland swamps, and a coastal lagoon. Total driving time is approximately 2 to 2½ hours, with each leg ranging from 10 to 40 minutes. Total distance is about 115 km. There are fuel and food stops along the way at Whakatane, Ohope, Edgumbe and Matata. You can undertake the full trail or simply visit any of the wetlands that interest you.

Safety first: The creators of this trail accept no liability for your safety on this route, but have designed it to minimise road and traffic crossings. Use this guide sensibly. Pull off the road safely to check route directions, ideally have a navigator to direct the driver. Watch for traffic, as much of the trail is along state highways. Keep to boardwalks in the wetlands and take extra care with children around open water and busy roads. Take water and food, sunblock, good walking shoes, and raincoats. A local road map will also be helpful. Enjoy your trip.

Update us: The directions and descriptions in this guide are current as of February 2010. Please let us know if our guide needs to be updated or modified because of changes to road signs, access or the condition of the wetlands: enquiries@wetlandtrust.org.nz

Quiz: For added family fun this trail includes a quiz. Look for the answers to the questions at each site. Some are based on signs or other features that could change. There are no prizes associated with the quiz.

1 Whakatane



Whakatane is a pretty coastal town steeped in Maori history, nestled on the banks of the Whakatane estuary. It is the gateway to one of New Zealand's most active volcanoes – White Island, which can often be seen steaming far out to sea. The town even has its own waterfall – an important landmark for early navigators. Kiwi live in the bush near town and can sometimes be heard at night.

From Whakatane first head south to Nukuhou Saltmarsh. Stop at the Whakatane Visitor Centre for the pamphlet on Nukuhou Saltmarsh.

Your route will take you around the extensive and scenic Ohiwa Harbour. As you pass the 7 ha Ohiwa Oyster farm on your left look for the Pacific oyster racks at low tide. Old lichen-crusted fenceposts in oioi (jointed rush) are visible as you round the bend 2 km from the Oyster Farm, indicating where saltmarsh has reclaimed old farmland. Another 4 km on the left you can stop at the natural spring water pipe to fill your water bottles with fresh clean water. Nukuhou Saltmarsh is another 2 km on the left.

Head to Nukuhou Saltmarsh

- Approx 20 mins to Nukuhou Saltmarsh. No toilets, but visitors may use toilets at Cheddar Valley Pottery 5 mins further down road.
- From the visitor centre on **Kakahoroa Drive** take **Commerce Street** and left into **Gorge Road** to Ohope and continue south onto **Wainui Road**. The parking area for Nukuhou Saltmarsh is at the entrance of **Burke Road** on the left.

2 Nukuhou Saltmarsh (Burke Road, Ohiwa Harbour)



The Nukuhou Saltmarsh covers about 60 ha where the Nukuhou stream enters the Ohiwa Harbour. In 2003 a local Care Group was formed and, with the help of Environment Bay of Plenty and the Department of Conservation, began a significant restoration and interpretation project. Extensive plantings, weed and pest control, an overlook, interpretation panels, pottery bird plaques, a short boardwalk and a contemplation bench have made this a pleasant place to enjoy the wetland and listen quietly for fernbird calls (high pitched ascending note, or repeated clicking). Pest control has boosted fernbird numbers, as well as banded rail and Australasian bittern.

- Quiz question 1:** What do Australasian bittern love eating?
Quiz question 2: What does the Maori word Matata mean?
Quiz question 3: How many footprints can you find?

Head to White Pine Bush

- Approx 40 mins drive to White Pine Bush. Toilets at Taneatua.
- On route stop at the Cheddar Valley Pottery to see where the pottery bird tiles at Nukuhou were made, and a mounted Australasian bittern specimen. Toilet available for visitors.
- Continue south on **Wainui Road**. At the junction of State Highway 2 (SH 2) turn right heading towards Taneatua via the scenic Waimana Gorge. Just north of Taneatua turn left to stay on SH 2 and cross the single-lane **Pekatahi Road**/rail bridge over the Whakatane River to **White Pine Bush Road**. This is one of 5 combined road-rail bridges left in New Zealand, though trains no longer use it. White Pine Bush car park is on the left just over 5 km beyond the bridge. Look for the rest area sign.

3 White Pine Bush (White Pine Bush Road, Taneatua)



White Pine Bush Scenic Reserve is a 4.5 ha remnant of a 90 ha stand of kahikatea forest that once occupied the fringes of an extensive wetland in this area. The remnant is on an alluvial (floodplain) surface which has built up over the past two thousand years from flood deposits and volcanic ash. The adjacent Waioho Stream has cut down through the silt and no longer floods this site.



The reserve has huge kahikatea, reaching 40 m high and 2 m across, dwarfing the tawa and pukatea that provide most of the lower canopy. Most of the kahikatea trees are thought to be over 300 years old, having established on flood-deposits laid down over hundreds of years following the Tarawera Eruption in 1314.

Kahikatea won't establish under their own shady canopy, and this site is destined to change into a broadleaf tawa forest in the absence of further major flooding and siltation, or catastrophic wind-throw.

- Quiz question 4:** What is another name for white pine?
Quiz question 5: Roughly how wide is the bush between the parking area and the railway line?

Head to Awakaponga Wildlife Management Reserve

- Approx 15 mins to Awakaponga. Toilets at Awakeri shops and Edgumbe.
- Leaving the car park continue to head north-west towards Awakeri. Turn left onto **SH 30**. Just beyond the Awakeri Shops the road forks, get into the lane that continues straight ahead onto **SH 2** towards Edgumbe. Stop at the dairy factory in Edgumbe (just beyond **East Bank Road**) to see a huge girder twisted in the 1987 earthquake. Continue through Edgumbe along **SH 2** to the bridge over the Tarawera River. Awakaponga is just over the bridge on the right. Limited safe parking.
- TAKE CARE TURNING ACROSS THE HIGHWAY

4 Awakaponga (Matata Road, Matata)



This 8 hectare wetland connected to the Tarawera River is a remnant of the original swamp vegetation which once extensively covered the Rangitaiki plains. The Fish & Game Council has been actively restoring this site, tackling invasive weeds including willow, pampas and reed sweet grass (*Glyceria maxima*). They plan to recreate the indigenous communities, including wetland to dryland sequences, which were originally present. The area is protected as a Wildlife Management Reserve. Interpretation panels and 30 min loop track..

- Quiz question 6:** Who uses the wetland in autumn?
Quiz question 7: Name two native plants that grow here.

Head to Matata Lagoon

- Approx 10 mins to Matata. Good spot for lunch.
- Cross **SH 2** again turning right into the north-west bound lane and head towards Matata. As you enter the Matata township turn right into **Pollen Street**, then left into **St. John Street**, another left onto **Arawa Street** (the main road) and an immediate right down a gravel road (opposite **St. John Street**) to the carpark entrance to the Lagoon.
- The walkway begins on the right-hand side of the carpark

5 Matata Lagoon (St John Road, Matata)



Matata (Te Awa o te Atua) Wildlife Refuge Reserve is a 110 ha coastal wetland managed by the Department of Conservation with the active support of the Matata community and local iwi Ngati Tuwharetoa, Ngati Awa and Ngati Rangitahi. Matata is a culturally rich and significant area for Maori and was the first landing place of the Arawa waka (canoe), before it re-landed at Maketu.

The reserve is a unique complex of coastal duneland and freshwater and brackish water wetland habitats comprising two shallow lagoons separated by an access road. The threatened fern *Cyclosorus interruptus* and 18 species of threatened birds, including the New Zealand dabchick, occur here.

The lagoon was formerly an estuary at the combined Rangitaiki and Tarawera river mouths, and once used as a harbour for coastal steamers. The rivers were diverted to the east in 1914 and 1917 respectively, as part of the Rangitaiki River Drainage Scheme. Without the flushing effect of the river flow the lagoon slowly became shallower and water quality declined.



A storm on the 18th May 2005 flooded the township and filled most of the western lagoon with debris. Work continues in 2009 to restore the western lagoon to a semi-open water habitat with native plantings.

A short walkway and bird hide with interpretation panels allow visitors to view birdlife on the eastern lagoon.

- Quiz question 8:** What bird shares its name with this reserve?
Quiz question 9: Name two divers and dabblers that can be found on Matata Lagoon.

Head to Awaiti

- Approx 15 mins to Awaiti. No toilets at Awaiti.
- Head back to **Arawa Street** and turn left heading towards Thornton and Whakatane. Continue on **Thornton Road** to **Greig Road**, turn right into **Greig Road**. Entrance to the wetland is approximately 2.5 km down **Greig Road** on the right. Parking is limited here. Note there are two entrances, park in the one at the far (eastern) end of the wetland where the reserve sign and map are.
- The walkways begin behind the entrance sign.



6 Awaiti (Greig Road, Thornton)



This relatively large (80 ha) wetland is a Wildlife Management Reserve jointly managed by the Department of Conservation and Eastern Region Fish & Game Council. The wetland is currently being restored by these organisations, focusing on large scale weed control (willow spraying) and local revegetation. It has important help from the charity Pou Whakaaro who bring people with varying disabilities from Whakatane to the wetland to take part in restoration work. The group received a Weedbusters award in 2008 for their work.

The wetland is a mosaic of open water, grey willow, stands of manuka (tea-tree) and areas of raupo and *Carex* sedgeland, with emergent cabbage trees and flax. A complex network of walkways meanders around and through the wetland (1-2 hour or shorter options), with grass tracks for easy access. Birds found here include Australasian bittern, spotless crane, New Zealand dabchick and various species of waterfowl.

Safety Note: this is a large wetland with many tracks and several loops, take care at track junctions. If you have a digital camera, take a high resolution photo of the track map at the wetland entrance to use as a reference. Tracks here can get very wet in winter, best visited in summer. For your own safety do not enter this area during duck shooting season (May-June). Longer tracks may take up to 2 hours to complete. Take snacks and drinking water. Parking is limited here.

- Quiz question 10:** What lives here that is spotless?
Quiz question 11: How many maimai are in this wetland?

Head to Whakatane

- Approx 25-30 mins to Whakatane
- Continue east along **Greig Road**, turning left at **West Bank Road** beside the re-routed Rangitaiki River. Turn right at **Thornton Road** – watch for fast traffic! Cross the Rangitaiki River and continue east on **Thornton Road** towards Whakatane.
- Turn left onto SH 30. At the roundabout just after crossing the Whakatane River turn left onto **Landing Road**, then left onto **Eivers Road**, right onto Pearce, continue on to the Strand and left onto **Buddle Street** then **Kakahoroa Drive**.

7 Whakatane Estuary (Kakahoroa Drive, Whakatane)



On your return to Whakatane park near the Visitor Centre in Kakahoroa Drive and stroll along the promenade towards the botanic gardens (upriver, or to your left as you face the water). Look for large white royal spoonbills roosting in the estuary (Apanui Saltmarsh) during winter. Other species present include banded rail, spotless crane, bittern, fernbird and species of cormorant and heron. The saltmarsh is cared for by the Apanui Saltmarsh Caregroup.

A little further along (before the playground) is a short boardwalk down to the restored He Matapuna Paru wetland (the source of paru). Paru is mud, which was traditionally used to dye flax for weaving into garments. The wetland has some pou whenua: carved posts placed to acknowledge and represent the relationship between Tangata Whenua (the people of the land), their ancestors and their environment or turangawaewae (place of standing).

- Quiz question 12:** How many pou whenua can you see in this wetland?

