

Flora and fauna

National Wetland Trust Trail Guide:



Southland Plains Southern Scenic Route

*Prepared by the Southland Wetlands
Working Party in association with
the National Wetland Trust.*



are found in Southland water bodies. Sphagnum moss and wire rush (*Empodisma*) are early plant colonisers in the cold wet conditions along much of the Southland coast. They hold water, slowing decay of plant matter and forming shallow peat domes. Domed wetlands are rain fed and so are low in nutrients, favouring specially adapted plants like insect-eating sundews and bladderworts. *Mnuka* dominates most of the peat bog, with inaka (*Dracophyllum*) in the more open wire rush areas. An unusual feature of the bogs along the cool, blustery southern coast is the occurrence of alpine species, like the cushion bog plant, *Donatia novae-zealandia*, found here at sea level.



Southland's wetlands are home to the threatened South Island fernbird and Australasian bittern. The little fernbird, like a sparrow with a long scuffy tail, can be heard tick-ticking as you walk through low growing vegetation of jointed rush or manuka, and may approach if you click two stones together. Bittern are rarely seen as they are secretive and solitary, with only 750 estimated throughout New Zealand. They can sometimes be seen on boggy paddocks seeking out earthworms or portia grubs, although their more natural territory is stalking the swamps and streams for native fish or hunting for lizards on the Tiwai Peninsula.

Caring for Southland's wetlands

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

Other trail guides in this series:

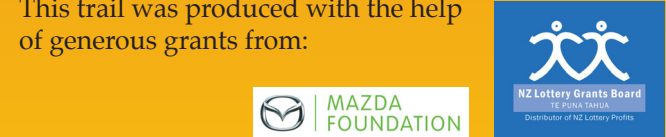
- Whangamarino and Lake Waikare, Waikato
- Rangitaiki Plains and Ohiwa Harbour, Bay of Plenty Region

Available from www.wetlandtrust.org.nz

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Waiau Trust

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WETLAND TRUST 



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Wetlands of the Southland Plains

What is a Wetland?

A wetland is a permanently or seasonally wet area of land that supports plants and animals adapted to living in aquatic or semi-aquatic conditions. They are diverse ecosystems, with the different types determined by their water - its amount, depth, permanence, temperature, chemistry, salinity and source.

New Zealand wetlands include;


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

Peatlands (bogs and fens) are ancient wetlands, formed over thousands of years in cool, wet climates by the slow build-up of thick layers of undecayed plant matter in waterlogged, acidic, low-nutrient soils. Healthy bogs are important carbon sinks, locking up 2-5 tonnes of carbon per hectare in their soil each year.

Swamps are fertile freshwater wetlands fed by rainwater, surface water run-off and groundwater, often found on the edges of lakes, rivers and ponds, and in wet gullies. They may have large areas of open water, or damp areas with emergent vegetation.

Estuaries are brackish wetlands subject to regular tidal influx and freshwater from streams that enter them. Many estuaries have been degraded by stock grazing, sediment and nutrient input, and reclamation.

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 great diversity of native animals and plants, and are of cultural and spiritual significance to Maori, providing food, harakeke (flax) for weaving and other materials.



Use this guide to explore some of the best remaining wetlands in the Southland Plains Region. Look for the National Wetland Trail sign along the route.

algae and reducing biodiversity.

The 15,000 ha peatlands in the Awarua/Waituna Wetlands are part of the largest (and first) Ramsar site in New Zealand. Stretching from Fortrose Estuary to Bluff Harbour, they formed after the last ice age, about 10,000 years ago and are home to highly specialised species like sphagnum moss, wire-rush, fernbirds and bittern.

The Mataura, Oreti and Aparima Rivers that formed the plains flow into extensive estuaries, the Toe Toes at Fortrose, New River near Invercargill, and the Jacob River at Riverton respectively. These estuaries have long been a valuable source of flounder, shellfish, whitebait and waterfowl for Maori. They were also important trade routes for early European settlers. Today Riverton Harbour still has a fishing fleet, however, severe erosion from forest clearance and rabbit damage has led to infilling of the other estuaries. Recent land use intensification has seen estuaries come under further pressure as nutrient levels increase favouring smothering forests.



education and local action.
Gay Munro, Secretary. Ph. (03) 239 5827.
Bushy Point Fernbirds – a privately owned wetland at Otatara, open to the public by appointment.
Ian & Jenny Gamble, www.fernbirds.co.nz
Southland Community Nursery – and created wetland on private land at Otatara. rances@ihug.co.nz

Arawai Kakariki – initiated in 2007, this 5 year DOC wetland restoration programme involves three nationally significant wetlands including Southland's Awarua Wetlands. At Awarua the focus has been on protecting water quality through the involvement of communities in education, and catfishing and riparian management; increased understanding and control of animal and weed pests; and improving recreational opportunities, with formed walking tracks. *DOC*. Ph. (03) 211 2400

Southland Wetland Working Party (SWWP) – an inter-agency group set up in 2004 to develop wetland policy, education material and generally raise awareness of the value and presence of wetlands in Southland.

restoration and protection including:

Besides the work of agencies like the Department of Conservation (DOC) and Environment Southland (ES), there are a number of groups involved in wetland

Southland Plains Wetland Heritage Trail:

Route details

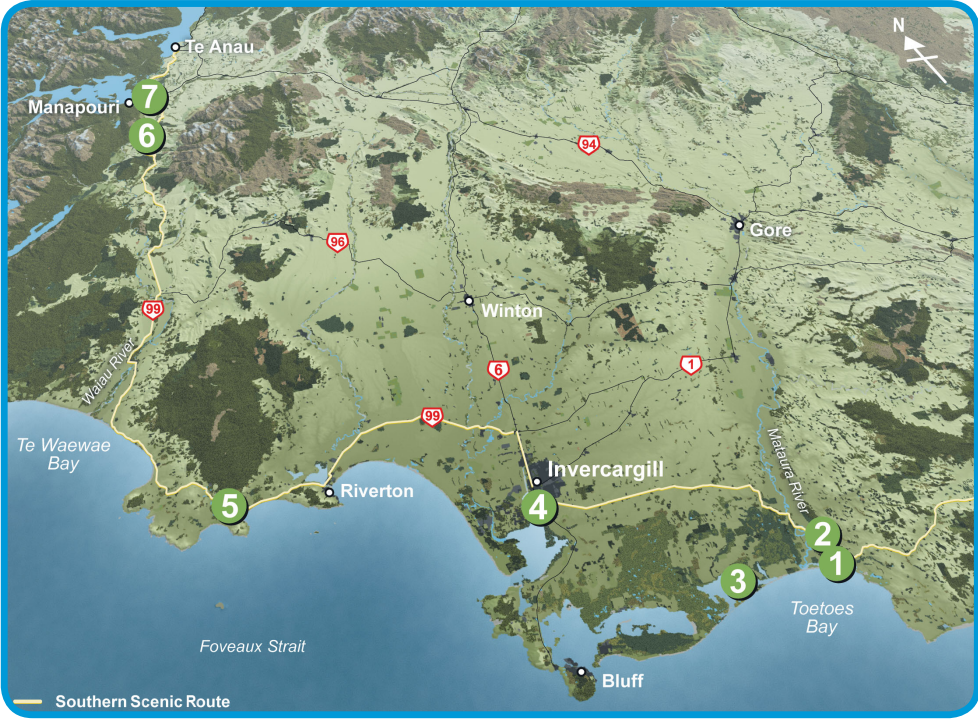
Route description: This trail is a driving route that takes you to a range of wetland types around the Southland Plains, including an extensive peatland area with a coastal lagoon, two estuaries, a remnant of former swamp forest, a restored oxbow system, and a meandering stream. Total driving time is approximately 3 hours, with each leg ranging from 30 to 45 minutes. Total distance is about 115 km. There are fuel and food stops along the way at Fortrose, Mokotua, Invercargill, Riverton, Tuatapere and Manapouri. It is recommended to undertake the full trail over two days with a night's stop in Invercargill to ensure a leisurely explore of these areas. Or you can 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 a high resolution photo of any maps at track entrances so you can refer to it on the walk. 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 March 2012. Please let us know if our guide needs to be updated.

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. See bottom of page for answers.



The Wetland Trail travels the Southern Scenic Route starting at the Catlins, heading west from Tokanui township (or head east if starting in Invercargill) to your first stop, Fortrose Estuary. Turn off the Tokanui-Gorge Road Highway into Fortrose village along the foreshore.

1 Fortrose Estuary (Toetoes Harbour)



The estuary here is where the Maitai River meets the sea after flowing 190 km from its source in the Eyre Mountains, south of Lake Wakatipu. Together with the Oreti and Aparima rivers, the Maitai has created the Murihiku (Southland) Plain.



From 1834 to 1836, whalers lived at a station in the Fortrose area that later became a port to service the local region.

The lower reaches of the Maitai River and Titiroa Stream to the east, are important whitebaiting spots. Whitebait are the young of several native fish species (inaka and the threatened giant kokopu) that lay eggs on the banks of tidal streams and spend their larval stage at sea. The fry are netted as they return up the river from August to November.

Quiz question 1: What are the three fin fish found in the estuary?

Head to Lower Maitai Floodplain

- Approx 5 mins
- Travel to the Titiroa Stream (3 km west of Fortrose) on the Tokanui Gorge Rd, and on to O'Neill's Bush (1 km west of Titiroa Stream on south side of road)
- Pull in to carpark on left.

2 O'Neill's Bush, Lower Maitai floodplain



The Lower Maitai floodplain would once have been a series of flax and rush swamps, interspersed with kahikatea forest and peatlands. Following conversion to farmland, severe flooding led the Southland Catchment Board to purchase the farmland in the 1970-80s and lease it back to farmers on the understanding that floods could not be controlled.

A walk through covenanted O'Neill's Bush enables you to experience a floodplain forest remnant. An unusual feature is the presence of silver beech, established from seed washed down the Maitai River from the upper reaches. Three local schools, Gorge Road, Tokanui and Waimahaka, have planted hundreds of native plants here, and Environment Southland controls pests and weeds.

Quiz question 2: How many large silver beech trees do you walk past in O'Neill's Bush?

Head to Waituna Wetlands

- Approx 30 mins.
- From O'Neill's Bush follow the Southern Scenic Route towards Invercargill.
- Approximately 5 km after crossing the Maitai River turn left at the large brown Waituna Lagoon sign just before the Gorge Road Village.
- Turn left again onto Waituna Lagoon Rd.
- Watch for the walking track sign which directs you along Waghorn Rd (3 km) to the carpark for the walking tracks, lookout and toilet.

3 Awarua-Waituna Wetlands (Waghorn Rd)



The Waituna Lagoon, a coastal lake impounded by a gravel bar formed by coastal currents, became one of the first Ramsar Wetlands of International Importance in New Zealand in 1976. It was expanded in 2008 to include the Awarua peatlands

The vast coastal peatlands were formed following the last glaciation about 10,000 years ago. Repeated fires, many lit to clear land for farming, have reduced the diversity of the wetland from a mosaic of sedge and flax-filled swamps, rushlands, tussock grasslands, wire-rush bogs and forest to a manuka shrubland dominated site.

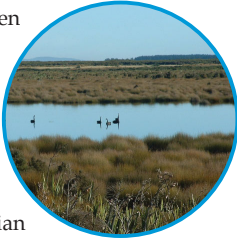
For the Maori the wetlands were an important kaitiaki (food basket) providing tuna (eel), kane kane (lamprey), patiki (flounder), parera (grey duck), along with flax for traps or kete (baskets) to carry the food. For the early European settlers the area was also important for recreation, duck hunting and fishing. Some of the huts around the wetlands are enjoyed by fifth generation hunters and fishers.

From the early 1900s, the lagoon has regularly been opened to the sea, initially by spade to improve trout fishing and later, by bulldozer and digger, to prevent flooding of low lying pastoral land. Today, it is also undertaken to maintain the lagoon in good health by flushing out nutrient-rich water. Concerns about the health of the lagoon have led to a programme to promote and encourage good management practices like riparian fencing and planting, and better management of nutrients and fertiliser in the Waituna catchment.

Quiz question 3: How many bird species have been recorded in the Waituna Wetlands area?

Head to New River Estuary

- Approx 40 mins drive to Invercargill.
- Continue on Scott Street until the T-junction, turn left on to Elles Rd and then right on to Kew Rd.
- At the next intersection turn right on to State Highway 1 (left takes you to Bluff.)
- Travel 1.3 km and turn to the left, then cross the railway line.
- Approx 250 m on left turn in through gates to the carpark.



4 New River Estuary (Invercargill)



In the late 1800s this was a popular picnic and swimming spot. With land reclamation and then use as a rubbish dump, the wetland was typically abused and undervalued for many decades. In 1994 the Invercargill City Council began an intensive rehabilitation project and today the area has a walking / cycling loop track around the lagoon and estuary margins and extensive community restoration plantings. The boardwalk is dedicated to the memory of Roger Sutton, a highly regarded self-taught ecologist and manager of the Acclimatisation Society (later Southland Fish & Game) who developed a restoration plan for the site. The area is now a rich habitat for wildlife, with a range of waterfowl and migratory wading birds, like godwit. The combined Council and community restoration effort won national recognition with a Green Ribbon Award from the Minister for the Environment in 2007.

Quiz question 4: At low tide what animals provide food for wading birds?

Head to Uruwera/Lake George

- Approx 45 mins to Uruwera /Lake George from Invercargill. Toilets available at Riverton or Colac Bay.
- Return to State Highway 1 and follow Southern Scenic Route signs through Invercargill heading north. At Lornville roundabout take left lane to Riverton.
- From Colac Bay surfer statue drive 1.3 km west on Southern Scenic Route. Turn left opposite Ward Rd into small carpark area.
- **NB: Take care here as the road verge is not wide so indicate early when turning in and ensure the road is all clear when pulling out.**
- Access: follow rough track 120 m to edge of lake, where an interpretation panel is sited. Please watch children carefully as you are close to water here and there is no clear track to follow.

5 Uruwera /Lake George



Lake George, a shallow lowland lake, is part of a remnant peatland. The waters from the Roundhill area to the north feed into the lake and it drains to the sea 2 km to the southwest. The area is important to iwi (local Maori) and is known as Uruwera. The iwi connection with Uruwera is formally recognised via a Deed of Recognition. The lake has provided mahinga kai - tuna (eels), inaka (whitebait) and waterfowl - for local iwi from Oraka, Awarua and Ruapuke for many generations. A botanical survey in 1989 revealed 116 native species, including two rare plants, native musk and water milfoil.

Quiz question 5: What is the Maori name for flax?

Head to Rakatu/Redcliffs

- Approx 35 mins to Rakatu /Redcliffs. Toilets available in Tuatapere.
- Signposted on Southern Scenic Route (SH99), 60 kms north of Tuatapere, 17 kms south of Manapouri.
- Take gravel road to Rakatu Wetlands carpark, 1.4 km.

6 Rakatu Wetlands and Redcliff Wildlife Reserve



The Waiau Fisheries and Wildlife Habitat Enhancement Trust (Waiau Trust) purchased a 278 ha farm property on the floodplain of the lower Waiau River in June 2000. Here they protected 65 ha of natural wetlands, created 50 ha of open water habitat, and established 9 km of public walking tracks, visitor facilities and interpretative panels. Rakatu was opened to the public in March 2006.



The Waiau Trust's vision for this property is to create an ecologically sustainable wetland / small stream ecosystem complex, to benefit fisheries and wildlife. The area, including Redcliff Reserve, is a stronghold for longfinned eels.

Quiz question 6: What is the wetland bird featured on the walking track signs?

- Travel on to Redcliffs Reserve Lookout, 2.5 km north of Rakatu entrance. Pull in to car park on left hand side of road.

From the top of the terrace you can look down over an oxbow lagoon of the Waiau River system. This area was restored in 1977 by the Southland Acclimatisation Society under the direction of the late Roger Sutton. Several dams were formed to raise the water level to improve the habitat for waterfowl. The open water, native riparian wetland vegetation and regenerating scarp shrublands provide great habitat for a variety of species (32 bird and 7 fish species have been recorded). This is a favoured locality for the native black teal (NZ scaup).

Quiz question 7: Why does this area have a QEII covenant?

Head to Home Creek

- Approx 20 mins to Home Creek. Toilets available in Manapouri.
- 17.5 km north of Redcliffs, turn left off South Road heading into Manapouri, just after recycling centre to the Home Creek carpark.
- 0.5 km to carpark.

7 Home Creek (Manapouri)



Home Creek is a naturally meandering stream moving through glacial outwash gravels. The stream originates to the northeast from the Kepler Mire and enters the Waiau River not far below this area.



Having been highly modified as a pastoral block, this 14 ha area was purchased by the Waiau Trust in 1997. The stream water quality is very good and this stretch is an important trout fishery. Early restoration work by the Waiau Trust involved willow and broom control; with some plantings of silver tussock and beech. In 2000, a local group began an annual planting programme, which supplemented the few natural remnants of flax and toe toe.

In 2007 the Waiau Trust developed a 1.4 km circular track, which enables you to explore the area, with its amazing Fiordland mountains backdrop.

Quiz question 8: How many bends in Home Creek from the top, where you cross the bridge, to the bottom?

Return to Invercargill or continue your journey

- From Home Creek you can travel 15 mins north to Te Anau to visit the Amoeboid Mire Kettle Lake (a side track 1.5 hours walk along the Kepler Track from the swing bridge over the Waiau River at Rainbow Reach, south of Te Anau). The mire has a boardwalk and interpretation panel.
- Return to Invercargill via Mossburn or Tuatapere if you want to complete a loop.

Answers to the Quiz Questions...

1. Blue cod, elephant fish and wrasse.
2. Two silver beech trees.
3. 80 bird species.
4. Shellfish and mud crabs.
5. Flax is called harakeke by the Maori.
6. The QEII Open Space Covenant protects the habitat for wildlife into the future.
7. There are about 36 bends in the waterway like this are characteristic of a meandering stream.