

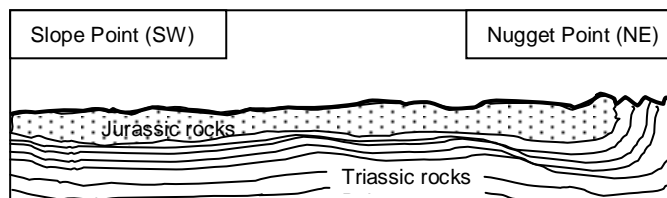
## Landforms and Rocks Trail

The sites are listed from North to South but can be followed in any direction with a good road map.

1. Kaka Point – Nugget Point. Steeply tilted rocks & old shorelines, Triassic & Jurassic fossils.
2. Cannibal Bay. Steeply tilted Jurassic rocks, dunes and infilled Bay < 6000 years old.
3. False Island. Axis of Murihiku syncline, steeply tilted rocks, conglomerates on South side.
4. Surat Bay. Dunes & infilled bay, Fossil wood.
5. Tunnel Hill. Vertical strata, marine fossils.
6. Katea Valley. Classic long ridge & valley landforms eroded along vertical rock strata.
7. Owaka Valley. Landforms eroded from 45° tilted rock strata. Scotsman's Bonnet prominent eroded remnant of harder rock.
8. Owaka Heads. Many small folds & faults exposed on intricately weathered rock platform.
9. Jack's Bay and Blowhole. Marine fossils along shore, sea eroded tunnels & caves along faults.
10. Catlins Lake. Large tidal inlet surrounded by a old higher shoreline terrace < 6000 years old.
11. Purakaunui Bay. Tallest cliffs (300 metres), intricately weathered sandstone.
12. Long Point. Sea eroded cliffs & chasms, weathered rock platforms, conglomerates.
13. Table Hill & Puketiro. Horizontal rock strata give rise to flat hill tops & waterfalls. Marine fossils.
14. Papatowai Beach & Estuary. Intricately weathered gently tilted rocks, Jurassic marine fossils, minor faults.
15. Kings Rocks. Conglomerates & raised beaches.
16. Florence Hill. Views to East & West of headlands eroded on gently tilted strata. Rainbow Island blowhole – eroded fault line.
17. Tautuku Beach. East end, cliffs with, caves, ash beds & fossil wood,
18. Tautuku Peninsula West. Faulted depression & spectacular Francis Pillars conglomerate.
19. Cathedral Caves. Caves eroded by sea along ancient faults, Jurassic coal & fossil wood.

20. McLean Falls. Horizontal massive sandstones with fossil ripple marks and conglomerate bands.
21. Chaslands. Landforms eroded along sedimentary rocks that tilt gently up to the South.
22. Samson Hill. Eroded remnant of sedimentary rock, splitting by gravity on the narrow summit, hence it looks like a volcano.
23. Waikawa Estuary. Old shoreline terrace around estuary, dunes < 6000 years old. Conglomerates.
24. Curio Bay. Headlands and cliffs eroded on gently tilted Jurassic sediments. Spectacular fossil tree trunks, wood and leaf impressions.
25. Slope Point. Gently tilted sandstones & conglomerates.
26. Waipapa Point. Sandstone rock platform with fossil wood. Clear day views West to Ruapuke Island benched during higher the sea levels 80,000 yrs ago & granitic Stewart Island beyond.

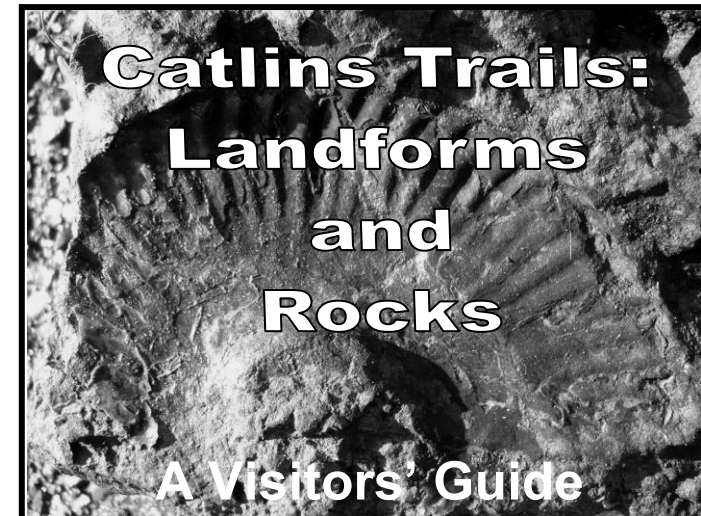
### NE to SW cross section of The Catlins rock strata showing the broad pattern of folding of the Jurassic & Triassic sedimentary rocks



Note that this is a generalised sketch and there are many minor folds and faults to be seen within the overall structure.

Sea levels up to 6 metres higher than at present within the last 100,000 yrs have created many terraces, cliffs and caves just above and back of the present coast, in some bays (eg Tahakopa) these old shorelines extend well inland.

There is much evidence of folding and faulting in Catlins rocks, however this is ancient & the area is now one of the most geologically stable NZ regions.



**Following the Landforms and rocks trail provides an opportunity to learn about Catlins landscapes and take you to some out-of-the-way scenic locations.**

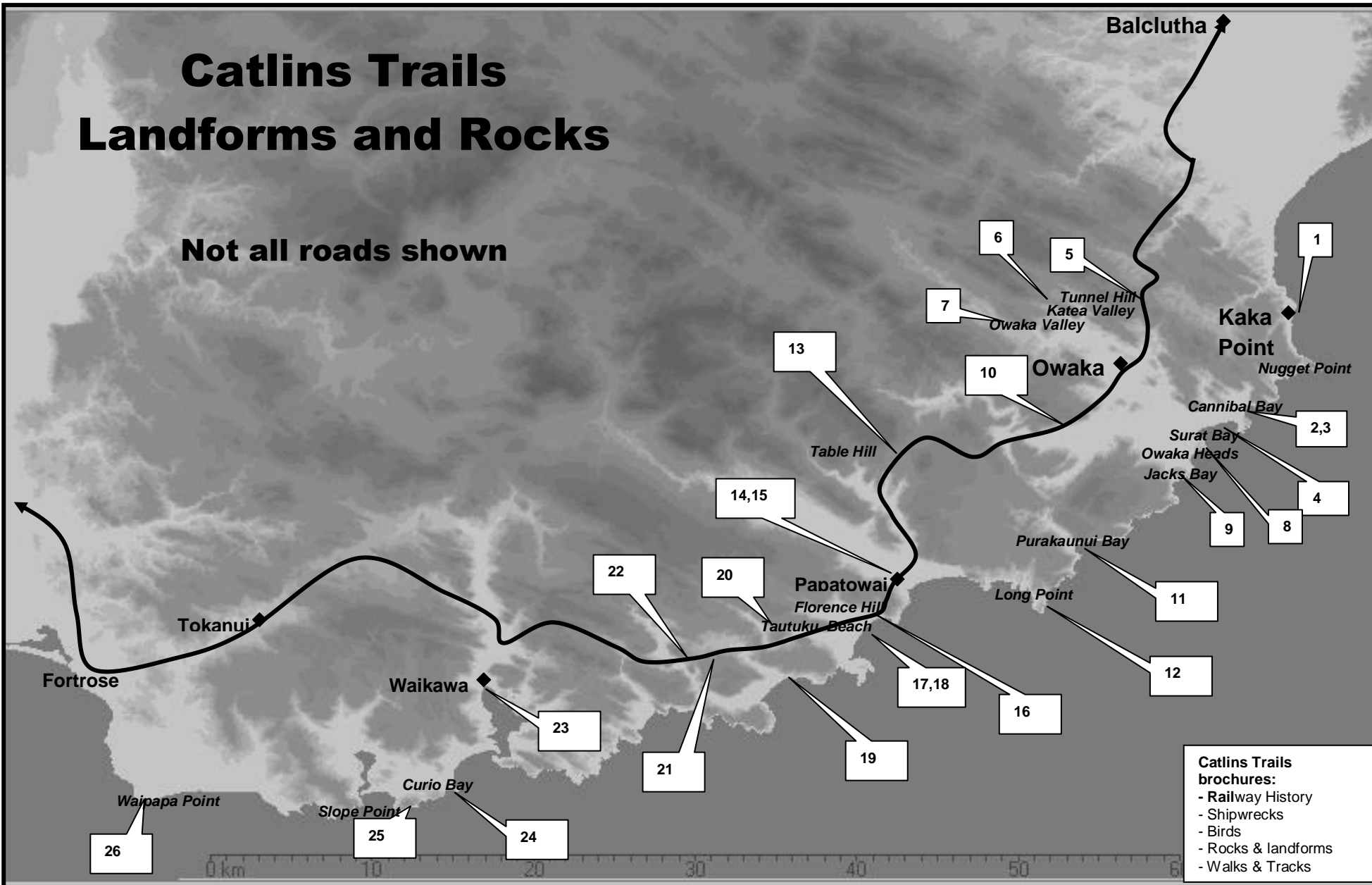
The varied hills and coast of The Catlins invite enquiry as to their origins. The rocks of the Catlins are Jurassic age and were originally laid down as silt, mud and pebbles in a shallow sea in the age of the dinosaurs. The hardening of these sediments into solid rock was followed over millions of years by their contortion and uplift into a mountain range about 80 million years ago. Since that time erosion by rivers and streams has sculptured the hard and soft layers into a subtle range of forms that reflect the structure of the underlying rock layers

For more information:

1. **Owaka & Waikawa Information Centres**
2. **Catlins web site: [www.catlins.org.nz](http://www.catlins.org.nz)**
3. **NZ Institute of Geological & Nuclear Sciences NZ Geological map 20**

# Catlins Trails Landforms and Rocks

Not all roads shown



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