

HFNC Pt MacDonnell SA excursion – report for 22 March 2014

Rod Bird & Diane Luhrs

This trip was attended by Rod & Diane, John & Glenys, Ken & Janeen, Craig & Amanda, Hilary, Yvonne, Louise and Karen. Some stayed at Hilary's house by the Lower Glenelg NP at Nelson on Friday evening whilst the rest started from Hamilton at 8.30 on Saturday morning.

We arrived at the foreshore of Pt MacDonnell at 10.30 am Vic time and, after a cuppa there, proceeded east from the town along the coast for about 4 km to a parking area near the beach.

Eastern Beach. We walked along the edge of the wide sandstone/limestone platform that comprises the beach at that area, looking in the pools and hollows for sea creatures. Sea Urchins and a green-coloured Soft Sea Cucumber (possibly *Stichopus mollis*) was seen in the water, whilst a dead Sting-ray was found on the shore (see photos below). Crabs and blue-bottles were seen among the algae and seaweeds.



The tide was beginning to come in and there was shallow water over much of the platform but enough 'high' spots so that we could walk out towards a rocky point to look for waders.

We saw a couple of flights of birds that may, from their size and shape, have been Golden Plover but they were too distant to be certain. Present were Double-banded Plover (see photo above), Red-capped Plover and Red-necked Stint. The Double-banded Plover is about 30% larger than Red-caps and about 50% larger than a Stint. A photo of the 3 species together is shown above.

The Double-banded Plover is a winter migrant from New Zealand South Island. These birds were not in breeding plumage (they nest in New Zealand), showing only indistinct breast bands and were mainly juveniles. The Red-capped Plover is a resident species. The Red-necked Stint is our smallest shorebird and these birds were uncoloured. They breed in Arctic Siberia and Northern Alaska and then fly 11,000 km to Australia each summer. We saw no Sanderling here (another summer migrant from the Arctic Circle) but they prefer to forage on the fringe of the water on sandy beaches.

Other birds seen on this eastern beach were White-faced Heron, Silver Gull, Caspian Tern, Masked Lapwing, Pacific Gull, Sooty Oystercatcher, Nankeen Kestrel and Australian Hobby.

Typical of this coast were the chert rocks that lined the shore. These dark grey rocks were prized by the Aborigines for the manufacture of cutting tools – flakes were struck off with a hammer-stone and these flakes have a very sharp edge that wears well.



Pt MacDonnell waterfront. After a brief stop near the jetty, where we saw several Australian Pelicans, Hoary-headed Grebes and Chestnut Teal in the water, we made another stop further west on the waterfront near a drain that enters the harbour. There were a variety of birds there, including those seen near the jetty and on the eastern beach, plus an Intermediate Egret (yellow bill, dark black legs and, Pied Oystercatchers, Sooty Oystercatcher, Crested Tern and a small flock of Sharp-tailed Sandpipers on a high spot offshore. The waterfront has a convenient walking/cycle track that provides an excellent viewing stage for waders when the tide is in.

Western beach. We drove west from the Pt MacDonnell waterfront and stopped first at a car park where we viewed the remnants of the 'petrified forest' stumps in the sea. These solution pipes were apparently formed when ground water rose to the surface carrying salts that solidified on the edge of the column, forming a free-standing pipe when the surrounding earth/sand was eroded away.

Shelly Beach. Further west, we had lunch in the car park above Shelly Beach, where we looked down from the sandstone cliffs to the water and beach (see photo below).

Features here included examples of sandstone cliffs formed over limestone basement. The sandstone dunes had been formed by wind and the cemented strata could clearly be seen. Erosion had cut horizontally across one dune, leaving a thin layer of soil that formed in the centuries before another wind-blown dune was formed above it (we saw this even more clearly at Cape Northumberland).



In the dark soil above the sandstone a layer of shells was evident, indicating an Aborigine midden.



We walked down the wooden walkway and steps to the beach. The waves met this at quite a sharp angle and the retreating wash caused the chert rocks to rumble. The small margin of 'sand here was very large-grained and light – difficult to walk across. Little native gardens grew on the crevices and platforms of the cliff face. Cushion Bushes (*Calocephalus brownii*) and other plants were prominent there.



Cape Northumberland. This was our last stop, where there is a lighthouse, the old lighthouse ruins and a viewing platform on the cliff top. This rugged cape had a lighthouse placed there in the late 1800s in an effort to prevent shipwrecks. A plaque lists at least 37 shipwrecks along the 50 to 100 km of coast. There is a fine view back to Shelly Beach and Pt MacDonnell beyond (see photo above).

Geological information on a shelter is summarised as follows:

- Parallel sand dunes extend from the coast inland as far as Naracoorte. These relate to a dozen or more episodes of high sea level over the last million years.
- The ice ages caused periods of low sea level; 18,000 years ago the sea was 140 m lower and the coast line here was some 30 km further south. About 10,000 years ago the land connections with Kangaroos Is. and Tasmania disappeared but by 6,000 years ago the sea level stabilised. The extensive wave cut platforms relate to the following stable period.
- Some 6,000 years ago volcanic action near Mt Gambier and Mt Schank saw lava from fissures pour over the land and then violent eruptions deposited ash on the coastal dunes that were formed 100,000 to 400,000 years ago.
- Most of the limestone in the cliffs came from fine grains blown inland off the shelves during the dry glacial periods.
- Wave action has subsequently eroded the cliffs and, in periods of high sea level, cut off the tops of dunes; subsequent soil formation and more sand capture formed layers above (see photo below).
- Inland-dipping calccrete layer (formed from limestone) is overlain by fine wind-blown lime sand.
- Seawood-dipping layers represent coastal fore-dunes.
- Serrated outcrop features of the limestone unit represents chemical (karstic) weathering.
- Solution channels that developed along fine rootlets have been deposited with lime and now resemble tree roots or fossil wood.

The cliff provides an excellent view of this rugged coastline and interesting sandstone formations. One such formation is Rhino Rock (see photo below).



Black-faced Cormorants were roosting on a sandstone stack a little way offshore. Several were seen collecting seaweed or other vegetation from the mainland cliff and taking it to the stack, presumably to build nests. Singing Honeyeaters were vocal in the sparse cliff vegetation and a few feral Rock Doves were also seen. Another interesting sighting was that of a pair of Galahs perched on a stack, the sea washing around it. That seemed to be a most unlikely place to find galahs!



Little Penguins were seen in the gorge below the lookout near the tip of the cape. At least 6 birds were seen under rocks just above the water. It was not clear why they were sheltering there rather than under the sandy shelf higher in the gorge.

Our excursion ended here and some of us detoured to Nelson for afternoon tea at Hillary's house, on our way back to Hamilton.

Bird list at Pt MacDonnell:

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|---------------------------|-------------------------|
| 1. Silver Gull | 13. White-faced Heron |
| 2. Pacific Gull | 14. Hoary-headed Grebe |
| 3. Caspian Tern | 15. Australian Pelican |
| 4. Crested Tern | 16. Chestnut Teal |
| 5. Red-necked Stint | 17. Little Penguin |
| 6. Double-banded Plover | 18. Nankeen Kestrel |
| 7. Sharp-tailed Sandpiper | 19. Australian Hobby |
| 8. Red-capped Plover | 20. Singing Honeyeaters |
| 9. Pied Oystercatcher | 21. Galah |
| 10. Sooty Oystercatcher | 22. Rock Dove |
| 11. Intermediate Egret | |
| 12. Black-faced Cormorant | |

