

## HFNC Excursion to Bridgewater Lakes & Cape 21 March 2020

Janeen Samuel & Rod Bird

**Participants:** Janeen Samuel, Dave & Lyn Munro, Peter & Wendy MacDonald, Diane Luhrs & Rod Bird, Peter Hocking, Roger Thompson, Jane & Jerry Chin.

We departed Hamilton Visitor Centre at 9.00 am. Because of the risk of Covid-19 most people travelled to Bridgewater Lakes in their own cars. A few stopped along the way and arrived a little late, having also taken a wrong turn at Portland. While waiting for them, Janeen, Roger, Peter and Wendy climbed up to the Tarragul Caves that overlook the lakes, and then indulged in a spot of birdwatching at the lake.

We followed the track that skirts one of the lakes and crosses the dunes to the beach at Discovery Bay. A few people sampled the dark purple and red berries growing on bushes lining the track; they were reported to have a bitter after-taste but the only adverse effects were stained fingers and mouths. Apparently the Seaberries are more palatable when they are fully ripe (black). The berry-laden shrubs were Sea-box (*Alyxia buxifolia*) and Seaberry Salt-bush (*Rhagodia candolleana*). Bower Spinach (*Tetragonia implexicoma*) and Karkalla/Pigface (*Carpobrotus rossii*) were also seen but the plants had no flowers. The above-species were all used by the Aborigines for food (K Sparrow 2013). Another food plant species (Rough Coprosma – *Coprosma hirtella*) has red berries similar to the Sea-box; we thought this was present here (IR McCann 1992) but it does not appear in recent publications (K Sparrow 2013).



Sea-box



Seaberry Salt-bush



Coast Everlasting



Dune Fan-flower

Other species seen in flower (mostly only on single plants) were Coast Daisy-bush (*Olearia axillaris*), Coast Everlasting (*Ozothamnus turbinatus*), Dune Fan-flower (*Scaevola calendulacea*), Coast Beard-heath (*Leucopogon parviflorus*), Moonah (*Melaleuca lanceolata*), Austral Stork's-bill (*Pelargonium australe*) and Beaded Glasswort (*Sarcocornia quinqueflora*).



Coast Daisy-bush



Purple Groundsel weed (DL)

Plants without flowers included Cushion-bush (*Leucophyta brownii*), Coast Ballart (*Exocarpos syrticola*), Coast Sword-sedge (*Lepidosperma gladiatum*), Coast Wattle (*Acacia longifolia* ssp. *sophorae*) and Boobialla (*Myoporum insulare*). A few flowering plants of the Purple Groundsel (*Senecio elegans*), a weed from South Africa), and a pea-flower plant with red flowers, possibly a variant of Austral Trefoil (*Lotus australis*) or a *Swainsona* species, were also seen. A species of tall Dianella, possibly Tasman Flax-lily (*Dianella tasmanica*) or *D. calicarpa*, was found bearing dark blue berries.



Beaded Glasswort (DM)



Coast Beard-heath (DM)



Austral Stork's-bill (DM)



Pea-flower – possibly Austral Trefoil (DM)

The track led to the base and then over a high dune which, when climbed, enabled a view of the coast in both directions. Those views were, however, slightly obscured by mist.

On the beach were the remains of a dead seal – skin and bones only. Fine yellow-green material in the waves and deposited along the tide line was possibly pollen blown off-shore following recent strong northerly winds. Assemblages of red, green and brown algae were also found on the sand.

The tracks of a small animal were found traversing the steep face of the dune in a diagonal fashion – this appeared to be the marks of a wandering Short-beaked Echidna.

Except for a Silver Gull and a Pied Oystercatcher there were no birds on the wide stretch of sandy beach. The migratory waders (Red-necked Stint, Sanderling, Ruddy Turnstone and sandpipers may have started on their way north although they, and Red-capped Plover and Hooded Plover, may have visited earlier in the morning. There was no lack of March Flies and Black-scape Bullants (*Mymecia nigriscapa*) on the dune.



View to Bridgewater Cape from frontal dune



Red, green and brown algae on the beach (DL)



March Fly – Family *Tabanidae* (DL)



Black-scape Bullant (DL)

Common Brown Butterfly and Cabbage White Butterfly were seen, the latter in large numbers, and a brownish species of moth from the *Geometridae* family. A Robber fly or native wasp was also seen.



A moth on a Coast Daisv-bush (DL)



Robber Fly or wasp (DM)

After lunch at the picnic area by the boating lake, enjoyed by a party of boaters and water-skiers, we stopped for a view of the Tarragul Caves. An Australian Hobby was seen soaring over the cliff top. These are limestone caves in an old sea-cliff, formed at a time when the sea level was higher. They were either flank-margin caves truncated by an old sea-cliff or perhaps uplifted sea caves (KG Grimes 2009).



Tarragul Caves at Bridgewater Lakes

Continuing on to Cape Bridgewater, we walked to the Blowholes area. Briefly, the Quaternary dune limestone overlies a Pliocene basaltic volcano (lava, scoria and dipping ash beds (KG Grimes 2009). The volcano of Cape Bridgewater has not been directly dated but might be of a similar age to that of the volcanics at Cape Grant, which has been dated by K/Ar at between 2.8 and 3.0 million years (KG Grimes 2011).

The waves were breaking over the base volcanic rocks. The contrast between those rocks and the bedded tufa overlay on the cliff was pronounced. The tufa surface was bare of vegetation, perhaps a result of the salt spray and properties of the ash.



Bridgewater cliff with basalt, tufa & limestone



Bridgewater Blowholes basalt, tufa & limestone

We walked along the cliff path to the so-called ‘Petrified Forest’ which is better described as a particularly well-formed cluster of limestone solution pipes with cemented rims (KG Grimes 2009).

In parts, the basalt flow is relatively high on the cliff, with tufa terraces above or on the side. An example is shown in the photo (above, right) where there is a sheer drop of perhaps 20 m to sea level.

There has been considerable effort to restore the vegetation on the denuded ground on the cliff-top, with some growth now appearing well established after cut branches (Coast Wattle – *Acacia longifolia* ssp. *sophorae*?) from other sites were placed over the ground some years ago to provide cover and to impede water run-off. Vegetation (mainly Cushion-bush), now also grows near the lower parts of some of the solution pipes, a result which some thought unfortunate. The desolate vista before restoration began with grazing by stock from 1835, when the Hentys occupied the area (K Sparrow 2013), until recent times. The damage was aggravated by vehicle and foot traffic and the salt spray.



Petrified Forest – limestone solution pipes



Petrified Forest – Cushion-bush re-establishment



Crested Terns on Bridgewater Bay

We drove back to Bridgewater Bay for coffee from the café, before heading home at about 3 pm.



Two groups of Crested Tern provided the bird interest at this beach. The 2 groups (and a few Silver Gulls) joined at one time to form a flock of about 700 birds on the beach, south from the surfing area. Many of the birds showed juvenile plumage.

A birdlist for the excursion was compiled by Wendy & Peter McDonald and is presented below (p. 6).

Diane Luhrs (DL) provided the images of butterflies, March Fly, Bulldog Ant and some plants.

Dave Munro (DM) provided images of a wasp and several plants.

**References:**

KG Grimes (2009) *Cape Bridgewater SW Victoria. Syngentic Karst, with volcanic, coastal and other scenic values* (see HFNC website)

KG Grimes (2011) *The ages of our volcanoes* (see HFNC website)

IR McCann (1992) *The coast and hinterland in flower.* (VNPA Inc.)

K Sparrow (2013) *Plants of the Great South West* (Soc. for Growing Australian Plants Warrnambool & District Group Inc).

**Plants seen in flower (or without flowers #) at Bridgewater Lakes and beach**

Botanical Name	Common Name
<i>Acacia longifolia</i> ssp.	Coast Wattle#
<i>Alyxia buxifolia</i>	Sea-box
<i>Carpobrotus rossii</i>	Karkalla/Pigface#
<i>Dianella (tasmanica?)</i>	Flax-lily#
<i>Exocarpos syrticola</i>	Coast Ballart#
<i>Lepidosperma gladiatum</i>	Coast Sword-sedge#
<i>Leucophyta brownii</i>	Cushion-bush#
<i>Leucopogon parviflorus</i>	Coast Beard-heath
<i>Lotus australis?</i>	Austral Trefoil?
<i>Melaleuca lanceolata</i>	Moonah

Botanical Name	Common Name
<i>Mycoporum insulare</i>	Boobiolla#
<i>Olearia axillaris</i>	Coast Daisy-bush
<i>Ozothamnos turbinatus</i>	Coast Everlasting
<i>Pelargonium australe</i>	Austral Stork's-bill
<i>Rhagodia candolleana</i>	Sea-berry Salt-bush
<i>Sarcocornia quinqueflora</i>	Beaded Glasswort
<i>Scaevola calendulacea</i>	Dune Fan-flower
* <i>Senecio elegans</i>	Purple Groundsel
<i>Tetragonia implexicoma</i>	Bower Spinach#

**Birds seen at Bridgewater Lakes, Bridgewater Cape and Bridgewater Bay**

<b>Common Name</b>	<b>Location</b>
Australasian Swampphen	Bridgewater Lakes
Australian Hobby	“
Australian White Ibis	“
Blue-winged Parrot	“
Chestnut Teal	“
Eurasian Coot	“
Forest Raven (likely)	“
Great Cormorant	“
Grey Shrike-thrush	“
Intermediate Egret (likely)	“
Little Black Cormorant	“
Little Pied Cormorant	“
Little Raven	“
Little Wattlebird	“
Masked Lapwing	“
Musk Duck	“
New Holland Honeyeater	“
Pacific Black Duck	“
Red Wattlebird	“
Silvereye	“
Wedge-tailed Eagle	“
Welcome Swallow	“
White-faced Heron	“
Yellow-tailed Black-cockatoo	“
Silver Gull	Bridgewater Lake beach
Pied Oystercatcher	“
Crested Tern	Bridgewater Bay beach
*House Sparrow	“