

Interpreting the Data and Using the Maps

Much of the known scientific information about Victoria's Marine National Parks and Marine Sanctuaries has been collected and summarised in the “**Natural Values Report**” conducted by the Marine and Freshwater Resources Institute.

Several tables and maps together with their keys from this report have been provided for study purposes. Use this information to gain a better understanding of some of the values of Barwon Bluff Marine Sanctuary.

Maps Provided :

- A. [Barwon Bluff MS Map of Habitats and Key](#)
- B. [Barwon Bluff MS Significant Shorebird Areas and Fauna Records](#)
- C. [Barwon Bluff Aerial Photograph](#)

Barwon Bluff Marine Sanctuary Natural Values Report

Physical parameters

The Barwon Bluff Sanctuary extends southeast off a large rocky headland less than two kilometres south of the Barwon Heads township. The geology of Barwon Bluff is complex with the eastern side of the Sanctuary dominated by basalt reef and boulders formed from a Mt Duneed lava flow (Bird 1993).

The western side of the Sanctuary has a large intertidal sandstone platform that slopes gradually to 10 m depth subtidally. The Barwon River is the major discharge into the Marine Sanctuary.

Table 1. Physical parameters for Barwon Bluff Marine Sanctuary.

Park Name	Barwon Bluff
Conservation status	Marine Sanctuary
Biophysical Region	Central Victoria
Size of Park (ha)	17
Length of coastline (m)	614
Exposure rating	High
Wave Energy	High
Influential currents	None
Tidal variation – springs (m)	2.1
Tidal variation – neaps (m)	0.7
Water temp – summer (° ° C)	17.5
Water temp - winter (° ° C)	13.5
0 – 10 m (ha)	17
Discharges	Barwon River mouth is 600 metres from Marine National Park boundary.
Adjacent catchment	Agricultural, Urban

Table 2. Threatened shorebird records from Barwon Bluff Marine Sanctuary and surrounds (AVW).

Common Name	Scientific Name	Fauna and Flora Guarantee	National (EPBC)	State (TWV)	International Treaties	Year TWV
Australasian Gannet	<i>Morus serrator</i>			Vul		1999
Blue Petrel	<i>Halobaena caerulea</i>		Vul			1999
Caspian Tern	<i>Sterna caspia</i>	L		Vul	China/ Japan	1998
Common Diving-Petrel	<i>Pelecanoides urinatrix</i>			LR		2001
Crested Tern	<i>Sterna bergii</i>			LR		1998
Fairy Prion	<i>Pachyptila turtur</i>		Vul	LR		2001
Great Egret	<i>Ardea alba</i>	L		End,	China/ Japan	1988
Gull-billed Tern	<i>Sterna nilotica</i>	L		End		1997
Hooded Plover	<i>Thinornis rubricollis</i>	L		End		2000
Pacific Gull	<i>Larus pacificus</i>			LR		1999
Southern Giant-Petrel	<i>Macronectes giganteus</i>		End			1984
Whiskered Tern	<i>Chlidonias hybridus</i>			LR		1997
White-faced Storm-Petrel	<i>Pelagodroma marina</i>			Vul		2000

Table 3. Threatened marine mammal records from Barwon Bluff Marine Sanctuary and surrounds (AVW).

Common Name	Scientific Name	FFG	National (EPBC)	State (TWV)	Treaties	Year
Australian Fur Seal	<i>Arctocephalus pusillus</i>			Vul		1988
Southern Right Whale	<i>Eubalaena australis</i>	L	End	Cen		1989

Activities for Students

A. Obtain a copy of the [Barwon Bluff Marine Sanctuary Map of Habitats and Key](#), and the [Barwon Bluff Aerial Photograph](#).

Use the Map and Key, Photo, as well as the data in Table 1 to answer the following questions:

1. What colour on the key is used to indicate where the Marine Sanctuary is located?
2. How big is the Marine Sanctuary?
3. What is the temperature of the water in the Marine Sanctuary throughout the year?
4. What are the four different habitat types found within the Marine Sanctuary?
5. How much of the Marine Sanctuary is less than 10 metres deep?
6. What is the name of the River that empties into the sea next to the Barwon Bluff Marine Sanctuary?
7. What might be some of the effects of the river on the Marine Sanctuary?
8. What is the name of the town next to the Marine Sanctuary?
9. What are some of the ways that the town might affect the Marine Sanctuary?
10. Approximately how far off shore does the Marine Sanctuary extend?
11. What types of rock are found within Barwon Bluff Marine Sanctuary?
12. To the west of the Marine Sanctuary there is a long beach called 13th Beach – what would the back of the beach look like?
13. How many jetties are there at Barwon Heads?
14. Maps like these are often produced by using aerial photographs taken from low flying planes. Have a close look at the Barwon Bluff Aerial Photograph. Can you match up the features on the map with those in the photo?
15. What would the scientists need to do to make sure that the maps that were drawn were accurate and really did show the different types of habitats represented?

B. Obtain a copy of the [Barwon Bluff Marine Sanctuary Significant Shorebird Areas and Fauna Records map](#). Use the data in Tables 2 and 3 to assist in answering these questions.

1. What do the purple dots represent on this map?
2. What are some of the possible species of birds this might include?
3. What does the brown symbol offshore represent?
4. What type of animal might this have been?
5. A threatened bird species has been recorded as nesting on the dunes near Barwon Bluff Marine Sanctuary – what type of bird is it and why is it threatened?
6. What are the two species of birds found at Barwon Heads that are protected by international treaties?
7. What is an estuary?
8. What is significant about the Barwon River estuary for wildlife?
9. Found out about the Ramsar Convention – what is it and what type of animals does it protect?
10. What endangered mammal is often seen of Barwon Heads during the winter months?