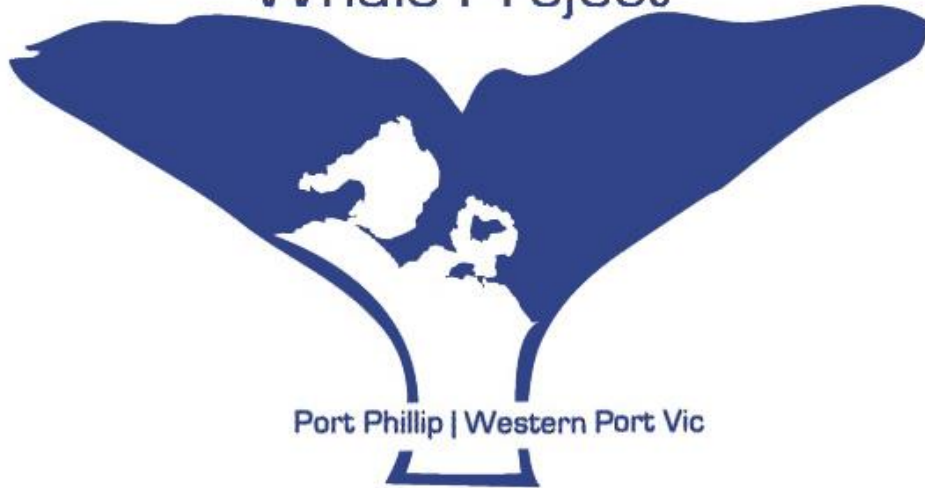


Two Bays

Whale Project



Two Bays Whale Project Annual Summary 2015

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Project Background

The Two Bays Whale Project is a new citizen science initiative created through collaboration between the Dolphin Research Institute, Wildlife Coast Cruises and the Australian Orca Database. The project is designed to formalise what has previously been the informal but mostly robust recording of sightings of large cetacean species' within Port Phillip, Western Port and adjacent waters (Barwon Heads to Inverloch) which is split into two regions; Port Phillip Region (Barwon Heads to Cape Schanck) and Western Port Region (Cape Schanck to Inverloch) see Figure 1. The current dataset dates back to 2000 with some supplementary sightings from previous years dating back to 1984.

The key species' for this citizen science project are humpback whales (*Megaptera novaeangliae*) and southern right whales (*Eubalaena australis*) but may also include other species' such as killer whales (*Orcinus orca*), minke whales (*Balaenoptera acutorostrata*) and blue whales (*Balaenoptera musculus*) also occasionally seen in nearby waters.

This project is designed to have the capability to provide a repository for fin, fluke (humpback whale), lateral jaw line and callosities (southern right whale) photographic identification imagery. The image repository will be a resource for existing identification catalogues eg: Victorian southern right whale catalogue and the Victorian humpback whale fluke catalogue.

Key stakeholders have been identified and are included in real time communication of sightings.

The objectives of this project are to;

- create a strong and reliable sightings network through engagement of key stakeholders and the general public,
- accurately record and archive sightings and movement of large whale species' within Port Phillip, Western Port and adjacent waters (Barwon Coast to Inverloch) (Fig. 1),
- provide a repository for identification images (primarily for humpback whales and southern right whales),
- provide accurate information on large cetacean movements and habitat use within the observation area and
- contribute these data to support current and future cetacean management plans and research projects.

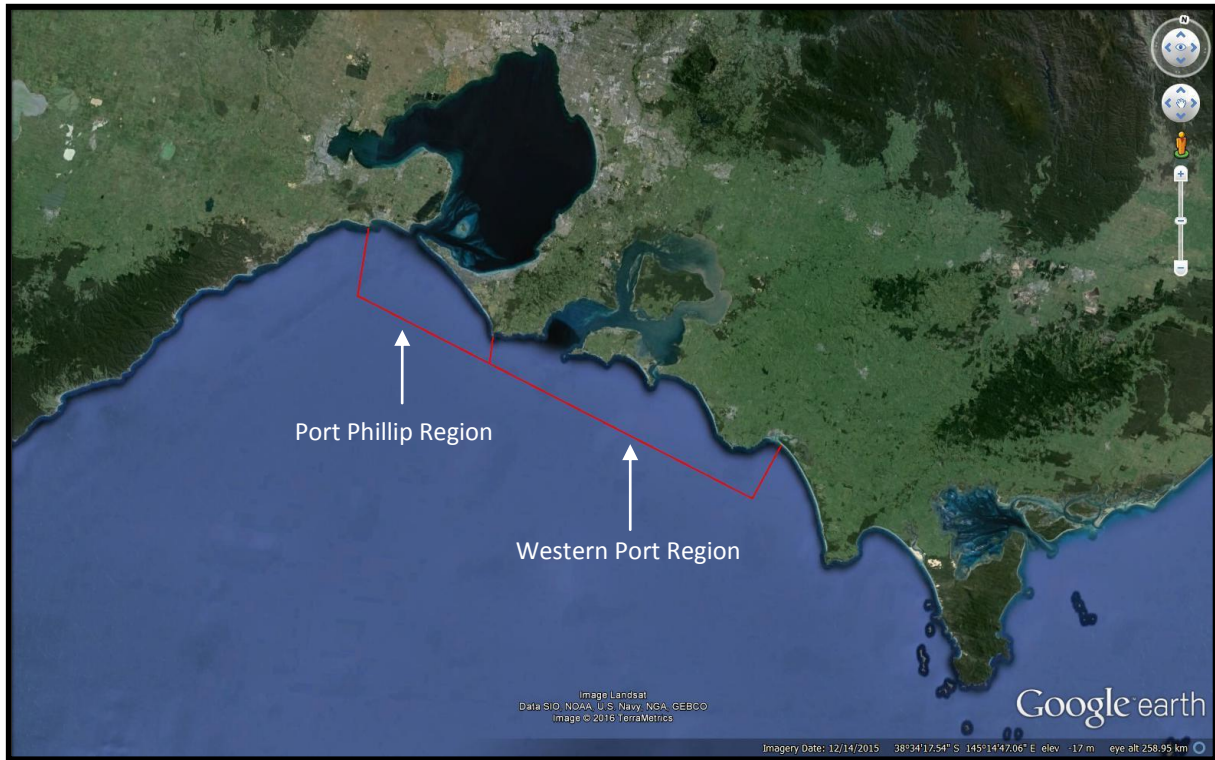


Figure 1 – Observation area encompassing Port Phillip, Western Port and adjacent waters (Barwon Heads to Inverloch).

Season summary

The 2015 season experienced a mix of weather conditions with good to very good conditions prevailing for the most part. Sightings were gathered from land, vessel and helicopter observations between May 20th and December 4th 2015. The primary platform for observations this season was from the tourist vessel 'Kasey Lee'. This vessel is owned and operated by Wildlife Coast Cruises and is based at Cowes on Phillip Island. Regular Phillip Island circumnavigations aboard 'Kasey Lee' were responsible for gathering the majority of the sighting data presented here. In many cases, sightings and species were validated from photographs, see Fig. 2, Fig.3 and Fig. 4.

Overall sighting figures;

- 87 confirmed sightings (77 Western Port region and 10 Port Phillip region)
- 3 confirmed species' (southern right, humpback and killer whales)
- Estimated number of individuals 172

Note; The figure of 172 individuals is a best estimate after omitting, probable and known re-sights.

The 2015 season saw an increase in sightings compared to previous years. This increase is in part due to a greater observation effort but can also be attributed to favourable sighting conditions through the season and a known population growth of Australian east coast humpback whales. Unfortunately due to inconsistencies in data collection methods between years, we have been unable to use previous years' data to make accurate comparisons.

Examples of photographic records used for species ID and sighting validation.



Figure 2 Southern right whale (*Eubalaena australis*) Lighthouse Point, Queenscliff, Port Phillip. Image courtesy of Searoad Ferries



Figure 3 Humpback whale (*Megaptera novaeangliae*) Cape Woolamai, Phillip Island. Image courtesy of Wildlife Coast Cruises.



Figure 4 Killer whales (*Orcinus orca*) Pyramid Rock, Phillip Island. Image courtesy of Renee de Bondt

Table of Sightings - Western Port Region

Species legend

HB = Humpback whale, SRW = Southern right whale, KW = Killer whale, ULW = Unidentified large whale

Age class legend

A = Adult, SA – Sub-adult, Y = Yearling, C = Calf

Sighting #	Date	Location	Species	Pod size	Age Class	Comments/Description
1	20-May-15	Surfie's Point,	KW	2	All	Sighted from shore. Later sighted off Pinnacles Cape Woolamai.
2	27-May-15	Surfie's Pt	ULW	?	?	Sighted from shore
3	13-Jun-15	Harmers Haven to Eagles Nest	ULW	2	?	Sighted from shore
4	14-Jun-15	1 mile south of Seal Rocks.	HB	2	SA	Sighted from tour vessel
5	14-Jun-15	Inverloch, off Eagles Nest	ULW	4	?	Report submitted by surfers.
6	14-Jun-15	Cape Woolamai	ULW	4	?	Sighting from helicopter
7	15-Jun-15	Between Nobbies and Seal Rocks	ULW	2	?	Sighted from shore
8	19-Jun-15	1km offshore from The Collonades	ULW	3 - 5	?	Large blows travelling in 3 separate groups, sighted from shore.
9	19-Jun-15	500m off Shelley's beach	HB	3	SA+Y/C	Sighted from shore
10	20-Jun-15	1nm South of Pyramid Rock	HB	1	SA	Sighted from tour vessel
11	20-Jun-15	500m West of Seal Rocks	HB	2	SA, A	Sighted from tour vessel
12	21-Jun-15	St Andrews	ULW	2	?	Sighted from shore
13	21-Jun-15	South of Cape Woolamai	HB	3	A, SA	Sighted from tour vessel
14	21-Jun-15	1nm south of Penguin Parade	HB	3	SA	Sighted from tour vessel
15	21-Jun-15	Cat Bay	HB	2	?	Sighted from tour vessel
16	22-Jun-15	Harmers Haven	ULW	2	?	Sighted from shore
17	22-Jun-15	Summerlands	ULW	4	?	Sighted from shore
18	22-Jun-15	South of Seal Rocks	HB	3	?	Sighted from tour vessel
19	23-Jun-15	Sighted off The Nobbies	ULW	1	?	Sighted from shore
20	24-Jun-15	Woolamai	ULW	1	?	Sighted from shore
21	27-Jun-15	South of Cape Woolamai	HB	2	SA	Sighted from tour vessel
22	28-Jun-15	Punchbowl	ULW	3	?	Sighted from shore

Sighting #	Date	Location	Species	Pod size	Age Class	Comments/Description
23	28-Jun-15	Western Port marker buoy 6	HB	1	Y or SA	Sighted from tour vessel
24	29-Jun-15	South of Seal Rocks	ULW	1	?	Sighted from the Nobbies Centre
25	30-Jun-15	WNW off Seal Rocks	HB	4	A, SA	Surface active. 1 x Type 1 in pod. Sighted from WCC vessel
26	04-Jul-15	Cape Woolamai	HB	2	SA	Sighted from tour vessel
27	05-Jul-15	Off Anzacs far out	ULW	2	?	Surface active. Sighted from shore
28	06-Jul-15	London Bridge lookout.	HB	2	?	Sighted from shore
29	07-Jul-15	French Island	HB	3	?	Sighted from shore
30	08-Jul-15	The Nobbies	HB	2	SA	Sighted from tour vessel
31	09-Jul-15	1 mile SE off Pyramid Rock	HB	2	A	Surface active. Sighted from tour vessel
32	09-Jul-15	Pyramid Rock - The Nobbies	HB	3	A, SA	Sighted from tour vessel
33	09-Jul-15	SW of Seal Rocks	HB	2	A, SA	Sighted from tour vessel
34	11-Jul-15	Shelley Beach	ULW	1	?	Sighted from shore
35	11-Jul-15	Kilcunda	HB	3	A, SA	Sighted from tour vessel
36	15-Jul-15	Surfies Point	ULW	1	?	Sighted from shore
37	16-Jul-15	200m off Foots beach, San Remo	SRW	1	A	Sighted from tour vessel
38	16-Jul-15	0.5nm West of Seal Rocks	HB	2	SA	Sighted from tour vessel
39	18-Jul-15	2km south of Summerlands	HB	2	A, SA	One individual with damaged dorsal fin. Sighted from tour vessel
40	18-Jul-15	1km SW of Cape Woolamai	HB	3	A	Sighted from tour vessel
41	18-Jul-15	1km SE of Cape Woolamai	HB	2	SA	Sighted from tour vessel
42	19-Jul-15	2km SE off Seal Rocks	HB	2	A, SA	Sighted from tour vessel
43	19-Jul-15	2km SW off Pyramid rock	HB	1	SA	Sighted from tour vessel
44	19-Jul-15	Cape Woolamai	HB	1	SA	Sighted from tour vessel
45	19-Jul-15	Cape Woolamai	HB	1	SA	Sighted from tour vessel
46	19-Jul-25	Grossard Point	HB	1	SA	Sighted from tour vessel
47	19-Jul-25	Cat Bay, McHaffies Reef.	HB	2	SA	Whales in 15 metres of water. Sighted from fishing vessel.
48	20-Jul-15	Sunderland Bay	HB	1	?	Sighted from shore.
49	20-Jul-15	Cape Woolamai	ULW	5	?	Sighted from shore.
50	20-Jul-15	The Nobbies	ULW	1	?	Sighted from shore.
51	21-Jul-15	The Anzacs	HB	2	?	Sighted from shore.
52	21-Jul-15	The Colonnades,	HB	1	?	Close to shore. Sighted from shore.

Sighting #	Date	Location	Species	Pod size	Age Class	Comments/Description
53	22-Jul-15	Cape Woolamai	HB	2	?	Sighted from shore.
54	22-Jul-15	Kilcunda	HB	3	?	Sighted from shore.
55	23-Jul-15	300m East of Cape Woolamai	HB	1	SA	Sighted from tour vessel
56	23-Jul-15	100m South of Pyramid Rock	KW	5	A, SA	Pod members known to Australian Orca Database catalogue since 2001. Sighted from tour vessel
57	23-Jul-15	Summerlands	HB	3	A,SA	Inquisitive pod containing 1 x type 1 sub-adult. Sighted from tour vessel
58	24-Jul-15	Off 16th Beach Rye	ULW	1	?	Sighted from shore.
59	27-Jul-15	Coronet Bay	ULW	1	?	Sighted from shore.
60	28-Jul-15	50m off Pyramid Rock	ULW	1	?	Sighted by helicopter, possibly southern right whale.
61	29-Jul-15	Cape Paterson first surf beach	SRW	1	?	Sighted from shore.
62	29-Jul-15	3km SSE of Pyramid Rock	HB	1	SA	Sighted from tour vessel
63	29-Jul-15	Colonnades 1-2km off shore	HB	2	A, SA	Sighted from tour vessel
64	15-Aug-15	Berry's Beach	ULW	1	?	Sighted from shore.
65	16-Aug-15	Berry's Beach	ULW	1	?	Sighted from shore.
66	20-Aug-15	Off Ventnor,	HB	2	A	Sighted from tour vessel
67	23-Aug-15	Surf Beach	HB	1	?	Sighted from shore.
68	30-Aug-15	Cape Woolamai beacon	ULW	3	?	Sighted from helicopter
69	11-Sep-15	Cape Woolamai	ULW	5	?	Sighted from helicopter
70	12-Sep-15	Cowes jetty	HB	2	A, SA	Sighted from tour vessel
71	13-Sep-15	Cape Woolamai	HB	1	?	Surface active. Sighted from tour vessel
72	13-Sep-15	1 km SE of Cape Woolamai	HB	3	?	Surface active. Sighted from shore.
73	24-Sep-15	500m off Cape Woolamai	HB	2	?	Sighted from helicopter
74	01-Nov-15	Punchbowl	ULW	1	?	Sighted from shore.
75	02-Nov-15	Off The Nobbies	HB	3	A, SA, C	Sighted from tour vessel
76	02-Nov-15	Kilcunda	HB	1	?	Surface active. Sighted from shore.
77	03-Nov-15	Harmers Haven	ULW	1	?	Sighted from shore.

Table of Sightings - Port Phillip Region

Sighting #	Date	Location	Species	Pod size	Age Class	Comments/Description
1	03-Jul-15	Point Lonsdale, Bass Strait	HB	1	S/A	Sighted by Port Phillip sea pilots
2	03-Jul-15	Corio Bay, Geelong	SRW	1	?	Sighted from land.
3	17-Jul-15	Southern Port Phillip, Marker 1	HB	3	S/A	Sighted from ferry
4	18-Jul-15	Jubilee Point, Sorrento, Bass Strait	HB	1	?	Sighted from land.
5	18-Jul-15	Blairgowrie	ULW	1	?	Sighted from land.
6	19-Jul-15	Dromana	HB	1	A	Sighted from land.
7	17-Aug-15	Point Lonsdale, near the lighthouse	SRW	1	S/A	Sighted from ferry
*8	01-Oct-15	Offshore Lorne 70 metre mark	HB	3	2A, 1J	Animals feeding on small fish. Birds common dolphins and blue fin tuna present.
*9	04-Oct-15	Offshore Lorne 70 metre mark	HB	3	1A, 1J, 1C	Animals feeding on small fish. Birds common dolphins and blue fin tuna present.
10	04-Dec-15	Southern Port Phillip, Marker 1	KW	3	3A	Pod spent the entire day in the bay, traveling between Sorrento and Mornington. Two individuals known to Australian Orca Database catalogue since 2005.

* Sightings 8 and 9 outside of observation area but included due to significance of feeding behaviour.

Considerations

During the 2015 Victorian whale season the Two Bays Whale Project was able to prove that the use of a 'Citizen Science' approach that included the use of social media, a sightings hotline and scientific expertise is a useful and reliable means of monitoring whale movements. The success of the 2015 season can be attributed to an excellent network of enthusiastic supporters, good communication and collaboration between organisations.

As part of the communication plan, season 2015 saw the introduction of the Two Bays Whale Project Facebook page. This page attracted 573 people, a majority of which are local to the observation area. The Facebook page has formed an integral part of the communication component of the Two Bays Whale Project and provides a central hub that is accessible to anyone interested in contributing sightings or simply wishing to learn about whale movements in and around our bays. Accompanying the Facebook page in 2015 was the existing whale sightings hotline and SMS alert run by Wildlife Coast Cruises. This form of communication was initiated in 2014; it both receives and circulates whale sighting reports amongst its 800 members in the Bass Coast region and beyond in near real time. Communication through these two means has increased community awareness of the presence of whales and attracts winter tourist visitation to Phillip Island and the Bass Coast.

The success of the 2015 season has ensured the continuation of this project into 2016. We hope to expand our networks and increase the contribution of data toward improving the understanding of whales in Victorian waters.

Acknowledgments

The authors of this summary would like to acknowledge the contributions made by the general public, without which, a large percentage of sightings would not have been available. We would also like to thank the Department of Environment, Land, Water and Planning (DELWP), Parks Victoria, Phillip Island Nature Park, The Nobbies Centre, Phillip Island Helicopters, South Bay Eco-Adventures, Port Phillip Sea Pilots, Polperro Dolphin Swims, Searoad Ferries, Barwon Coast Committee of Management and Victoria Police Search and Rescue.