

# SNAPSHOT 2018

# DOLPHIN RESEARCH INSTITUTE



*i sea i care*  
COMMUNITIES

**RESEARCH - EDUCATION - LEADERSHIP  
SINCE 1991**

[www.dolphinresearch.org.au](http://www.dolphinresearch.org.au) | 03 59797100



# Dolphin Research Institute 2018

## Welcome to our collection of blog and newsletter stories that give a snapshot of the Dolphin Research Institute's activities during 2018.

Our primary objective is to empower the community and environmental managers to improve the conservation of Victoria's marine treasures, especially our dolphins, whales and bays.



We do this through RESEARCH to support conservation, EDUCATION to develop understanding and foster stewardship, and LEADERSHIP to find better solutions and support management and decision making.

The following pages contain a selection of our work in research, citizen science, education and our *'i sea, i care'* Ambassador Program.

It represents a small part of our activities and of course, behind what is here are many dozens more workshops and the unseen efforts to plan, organise and support our small organisation.

2018 was our 28th year and one where we received awards, saved a life, increased scientific understanding and launched new programs in citizen science and environmental leadership. We hope you enjoy our snapshot and feel proud of your association with the Dolphin Research Institute.

We are a small organisation with 5 dedicated staff supported by sessional educators and passionate volunteers.



Pictured left to right: Jenny Pallant (Admin/Fundraising), Jeff Weir (Executive Director), Liz (Volunteer Fundraiser), Sue Mason PhD (Research Director), Mandy Robertson (Education Director) and Jenny Parsons (Communications).

Nothing would be possible without our wonderful partners and supporters, many have been with us for over 25 years.

We greatly acknowledge the support of:

- Our loyal Adopt-A-Dolphin supporters and donors.
- MAW Civil, Midland Insurance Brokers, Kiss Printer Solutions, Moonraker Dolphin Swims and Portsea Village Resort.
- Grants from Federal, State and Local Governments.
- Volunteer researchers, fundraisers, board and other.



Our '**i sea, i care**' Ambassador program has worked with schools for nearly two decades, developing leaders to change behaviours and build stewardship for OUR marine treasures. Over 5,500 young environmental leaders from over 100 schools (green stars on map) have benefitted from the program.

#### DRI's program coverage



'**i sea, i care**' is currently being expanded to secondary schools and the wider community. You will find stories about these in the following pages.

Below is feedback from one of our 'i sea, i care' schools about what the program means to them.

*We just had our 2019 '**i sea i care**' Ambassador selection. What an affect the program has had on our students with 36 of our 37 year 5's choosing to write a speech and put themselves forward for the program. Our ambassadors have done a fantastic job promoting the program embedding their learning from the workshops and putting the spotlight on their projects encouraging the whole school to support it. The leadership skills our students have learnt in the program are invaluable and have given them the power to make a difference, spread the message and inspire others. Students as young as our 1/2 students are already working on their application to be an '**i sea i care**' leader over taking the prestigious role of school captain as preferred leadership role. When speaking with students they see the role having the ability to impact globally rather than just their school it also means they can continue with it into their high school years. Thankyou for the support the Dolphin Research Centre and Kingston council has shown to provide a supportive program to help connect our communities and focus on sustainable solutions to improve our environment. This program has traction and will see our future leaders make positive changes in our communities saving us in waste management costs down the track.*

**'i sea, i care'** Coordinator Chelsea Primary School

## AUSTRALIA DAY AWARD FOR DOLPHIN RESEARCH INSTITUTE



We are humbled and grateful to the Mornington Peninsula Shire Council for being included in their 2018 Australia Day awards. (Pictured are Mandy Robertson and Jeff Weir with Cr Bryan Payne.)

The "Acknowledgement of Excellence Award" recognises twenty-seven years of sustained contributions to marine ecological protection in both Port Phillip and Western Port. It acknowledges our contributions through science, education and our *'i sea, i care'* Ambassador Program.

It has been a twenty-seven year journey of learning to overcome challenges and finding solutions to help care for our dolphins and bays.

Nothing would have been possible without the passion and commitment of our staff, volunteers, ambassadors and loyal supporters, many of you being with us for the whole journey.

This recognition belongs to you all. Thank you.



Winners of the 2018 Australia Day Awards from the Mornington Peninsula Shire Council. Pictured are (L to R), Jeff Weir (DRI's Executive Director), Cr Bryan Payne (Mayor), Mathew Mayne (Young Citizen of the Year), Sharon Fankhauser (Citizen of the Year), Diane White (Community Event of the Year) and Bill Goodrem (Lifetime Achievement Award).



Cr Bryan Payne presents Jeff Weir with the 2018 Australia Day Award.



## NEW TOOLS TO ACHIEVE GREATER PROTECTION FOR OUR DOLPHINS



A hotspot for dolphins and boats in southern Port Phillip is the focus for a new study by our research team and volunteers over summer.

It follows a pilot study two years ago that raised concerns for the dolphins' welfare due to harassment from vessels. The study was limited because we had to rely on binoculars to estimate locations of the dolphins and vessels.

The new study uses a theodolite and VADAR software to precisely track the movements of dolphins and vessels from a shore-based location. This gives far greater accuracy than just binoculars.



*Theodolite legs donated by C.R.Kennedy*  
VADAR was used by Sue Mason, DRI's Research Director, for her study of the common dolphins near Mornington. This is a new application that directly responds to concerns about our dolphins' welfare.

Concrete examples of harassment have already been provided to Wildlife Officers to follow up.

This year it was also a "hot spot" for our researchers and volunteers, as well as dolphins, but temperatures in the high 30's didn't stop them putting in the hours.

We will update you when the results of the study are available.

Thank you to Dr. Eric Kniest (University of Newcastle) for modifying VADAR for this location and helping set up the field site.

Projects like this are developed and self-funded by DRI. The term self-funded really means that it is funded by our supporters.

Not only our regular donors and pledge members, but everyone who has bought from, or donated to, our auctions...

Everyone who has popped some spare change in our donation tins, or is one of our wonderful tin-hosters...

Everyone who has come along to Walk for Western Port or been to one of our education or school-holiday programs... You make this research happen!

## “FEEL GOOD” OR “REAL GOOD” - DRI MEASURES THE DIFFERENCE

The best education or research programs don't count if they don't change perceptions, behaviours and environmental protection.

Our supporters are owed more than “feel good” - but measuring “real good” is a massive challenge in our type of work.

Last year we learnt how to assess the impact of our programs. This resulted in DRI becoming a “Certified Community Partner”.

The certification program was developed by the London Business Group (LBG) to help corporations tell if their sponsorships, donations and volunteer days have an impact! We are part of the first group of organisations in Australia to complete a version adapted for not-for-profits.

Our training has helped to change our thinking and provided ways to overcome some of the challenges in capturing the impacts of our programs.

Future programs will integrate impact measurement from the start. We are now looking at current and past programs for evidence of impact, or how “real good” they are. Some things stand out.....

## RESEARCH



DRI's long-term research led to changes to Victoria's Wildlife Act to introduce licensing for dolphin tourism and the Ticonderoga Dolphin Sanctuary at Point Nepean. We know that these resulted in a lasting impact on the behaviour of vessels around dolphins. More recently, our formal research and citizen science programs focus on answering questions to improve environmental management, and assist with emergency response and regulation enforcement.

## EDUCATION



Impacts from environmental education programs are hard to measure, especially with our formal programs. Last year we engaged over 8,000 children and adults. We do capture feedback on programs to guide improvement. We know that most of our schools are returning customers, satisfied with the value we add to their students' learning.

## RESCUE OFF CAPE WOOLAMAI



### DRI to the rescue....!

DRI's research team was truly in the right place at the right time for an exceedingly lucky (and very wet and cold) woman recently.

Having fallen overboard from the yacht she was on, the woman was in big trouble in the cold waters off Cape Woolamai. She had no life jacket, and was unable to physically climb back into the yacht. The captain eventually set off a distress flare – which was seen by the DRI team.

From surveying for whales and common dolphins along the Bass Coast, DRI's Sue Mason and Dave Donnelly, along with two colleagues, swung into action. First throwing her a life jacket, and then getting a line to her, the floundering woman was able to be pulled aboard DRI's research vessel.



DRI's Research Director, Sue Mason, said "If she had remained in the cold water for much longer, she really could have died".

Once aboard, the woman was wrapped in blankets and comforted by our researchers on the trip to San Remo. Here she was met by her mightily-relieved family, and later by the yacht from which she had fallen.

We are very proud of the professional seamanship skills of our research team - preventing what could have been a tragedy. By supporting DRI you know that you are supporting more than our research and education programs.

## SOME DOLPHINS CHANGE THEIR BEHAVIOUR OVER SUMMER



Over summer, DRI's research team again monitored an area along the southern Mornington Peninsula that is known to be a 'hotspot' for dolphins. It is also known to be a hotspot for those of us who like to enjoy the beach, boats, jetskis and stand-up paddle boards. We ran a pilot study here in 2016. Our research work investigated if it is still preferred by the dolphins, and if vessels were regularly observed.



There appeared to be a change in the dolphins' preference for the area. While we observed the dolphins using particular areas of the hotspot, they were not frequenting it as regularly as in 2016. This finding was supported by the anecdotal reports of the locals that stopped by our field site, and the local camping ground rangers.

The dolphins often feed in the area, so it is possible that a change in fish behaviour or availability has affected the amount of time the dolphins spent in the area.

We will continue to monitor this dolphin hotspot. Our findings are valuable for the DELWP wildlife managers.

Thank you to interns Ben (Monash University) and Julian (Deakin University), [photo opposite], and our volunteers for sharing the challenges and highlights of summer field work with DRI.



## WITH YOUR HELP WE CAN BUILD A COMMUNITY THAT CARES



Welcome to DRI's new **'i sea, i care'** COMMUNITIES .... Working to protect our bays' environment is key to protecting our dolphins and marine treasures.

Did you know that our bay is kept healthy by filter feeding animals like scallops, mussels, worms and sponges that act like a gigantic aquarium filter? The main threats to these filters come from our suburbs.

The risk is that our waters could turn a murky, smelly green with toxic algal blooms. The consequence is that the environmental amenity, social and economic values provided by the bay will be lost.

There are challenges (remember the beach closures after rain) but there is also hope. The recent State of the Bays Report shows that we have made progress with the health of the bays. But we have NO room for complacency: our population is expected to grow to 8 million by 2050.

The concept of **'i sea, i care'** COMMUNITIES, working with the wider community is logical. It builds on our research, citizen science, education, ambassador program and community relationships, to engage a much wider (and unconverted) audience.

Begin by going to our website where you can learn more and make a commitment. We want to have more than 5,000 join us by the end of 2018. You can help us achieve this by supporting our appeal.

**'i sea, i care'** COMMUNITIES asks you to:

- Commit to an Action - to help the bays such as always picking up after your dog, avoiding using single-use plastics

- Share **'i sea, i care'** stories and ideas by sharing our news feeds and posting your ideas

- Support DRI's programs by participating in citizen science, events and supporter programs.



## CO-OPERATION AND A HEALTHY ENVIRONMENT; VITAL FOR US ALL

How would you cope if you lost half your face?

There is one amazing dolphin living in Port Phillip doing just this. Nick-named M J (for Missing Jaw) by our research team, he is a male, short-beaked common dolphin, with half of his upper jaw missing (possibly due to an accident).

M J was first photographed by us in Port Phillip in 2016. He was with several other common dolphins also new to us in the bay. Besides the confronting sight of his missing top jaw, there is also severe scarring on M J's tail. This is healed (looking almost like a zipper) and doesn't affect how he swims. Apart from these injuries, M J appears to be healthy and of a normal body size.



He is still in Port Phillip, and still socialising with the same dolphins he was initially photographed with in 2016. These photos of M J are from a recent survey by the research team.



It is difficult to know how M J manages to survive. We know that common dolphins co-operatively feed; they work together to 'round-up' bait fish. This makes the most of the food supply. Maybe this behaviour, and the productivity levels of the bay, allow M J to survive.

Melbourne's Port Phillip is home to resident populations of healthy dolphins, both common and bottlenose. Elsewhere in urbanised bays, dolphins are stressed from pollution, loss of habitat, over-fishing and unsustainable conditions. This stress often manifests as ill-health and skin lesions. In almost any comparable bay in the world, M J might not survive.

This amazing dolphin and the bay are comparatively healthy now; it's up to us to keep them that way.

## DRI = DOLPHINS AND WHALES AND SO MUCH MORE

DRI's long-term commitment to our dolphins, whales and the marine environment continues with your support.



PS Whale number 75 has recently been added to the Victorian humpback whale fluke identification catalogue (thanks to the Two Bays Whale Project).

Keep sending in sightings to [dolphinresearch.org.au](http://dolphinresearch.org.au)

The Dolphin Research Institute is more than dolphins! We collaborate with Killer Whales Australia and Wildlife Coast Cruises to run the Two Bays Whale Project. This is an overview from its 2018 report (available online).

The 2018 Victorian whale season again proved to the Two Bays Whale Project that 'Citizen Scientists' are key to collecting sightings. The use of social media, a sightings hotline and scientific expertise are useful and reliable means of monitoring whale movements.

The success - being numbers of sightings of whales - of the 2018 season was due to an excellent, and growing, network of enthusiastic supporters, good communication and collaboration between organisations.



Regular whale watch cruises gathered much of the sighting data. The tourist vessels 'Kasey Lee' (above) and 'Brianna Lee' are owned and operated by Wildlife Coast Cruises based on Phillip Island. Other sightings came from land, vessel and even helicopter observations.

Sighting reports were scored for reliability using a 1 to 5 system, with 1 being unlikely and 5 being validated with imagery (video or photograph).

Overall in the 2018 season (1 June - 31 August) there were:

- 275 confirmed separate sighting events
- estimated 592 individual animals
- 3 confirmed species (southern right, humpback and killer whale)

*Note: the figure of 592 individuals is a best estimate after omitting probable and known re-sights.*

This is an overall increase in sightings compared to previous years. This increase is expected with the growing network of citizen scientists as well as a known population growth of east Australian humpback whales.

Of special note was a higher than expected number of sightings of southern right whales in the region. Whether these sightings were of a number of individuals or the same few whales moving locally is unknown as insufficient photo identification images were gained. Also of note was the finding of a newborn humpback whale calf in July, a rarity for the region with only two other validated similar events.



## IT'S A HOT TIME FOR OUR DOLPHINS TOO – PLEASE RESPECT THEM!



We are incredibly lucky to have resident dolphins in our bays and they need our respect.

A frantic call to our office today about a boat harassing dolphins could result in someone being hit with many \$1,000's in fines.

The stress of not being left alone to feed or rest can threaten their health, especially for mothers with young calves. Some of our dolphins have propeller injuries.

If dolphins approach you, slow down or stop, and enjoy the experience. Then let them swim away and don't follow.

It is an offence to deliberately approach them closer than 100m (300m jetskis). More details and links below.

You can help by sharing the message with your friends and also reporting your sightings at [www.dolphinresearch.org.au](http://www.dolphinresearch.org.au)

(Note the image is taken many years ago)

**Whale and Dolphin Watching Regulations** Please obey the minimum cetacean approach distances: Dolphins: 100m boat, 300m jetski. Whales: 200m boat, 300m jetski. Download regulations [HERE](#). What to do if you find a stranded dolphin, [HERE](#).

**Contacts in Victoria** Whale and Dolphin Emergency Hotline: 1300 136 017 DELWP (for seals or marine turtles): 136 186 (business hours) Dolphin Research Institute: 1300 130 949

## MUD ISLANDS



Mud Islands are located about 6km north east of Portsea and are an exposed area of the Great Sands. They are an important part of the Point Nepean Marine National Park.

When you are on a vessel in southern Port Phillip, Mud Islands look like a thin dark line on the water horizon.



The "islands" constantly change shape due to the effects of strong tides and storms. They have low vegetation including saltmarsh and dune scrubland. The shallows around the island house thick seagrass meadows. There is a lagoon in the middle.

Many species rely on the various Mud Island habitats. It is listed as a RAMSAR site for protection under the International Convention for the Protection of shorebirds. More than 70 species of birds have been recorded to use Mud Islands.

The seagrass meadows and fine muds around the islands are home to a myriad of worms, molluscs and crustaceans that are prey for birds and fish.

The shallows are known to be used by many shark species and bronze whaler sharks use the warm waters to pup.

The microfauna of the sands and mud here and in the bay generally, are critical to keeping the bay healthy. Denitrification processes occur in these sediments, taking nutrients from the water column that could otherwise cause toxic algal blooms.

## INJURED HUMPBACK WHALE CALF'S MIRACULOUS 2000 KILOMETRE JOURNEY TO VICTORIA!



In a remarkable feat of endurance, an injured humpback whale calf has swum from Queensland to Victoria – with its mother by its side for all the 2000 kilometres.



They were first seen in Hervey Bay in September. The calf was thought to be about six weeks old then, and it had deep, open wounds. We suspect it had been attacked by a shark, as new-born whales are common prey for large sharks and killer whales.

Humpback whale calf photographed in Hervey Bay Queensland, 11 September 2018 by Vicky Neville.

We express our appreciation to Vicky Neville and Angela Bahler for the images of the calf from Hervey Bay and Wilson's Promontory, respectively. Also to David Donnelly for analyzing the images to validate the identity of the calf and producing the track.

Forty-seven days later, whale watchers with Wildlife Coast Cruises observed the mother and calf off Wilsons Promontory. Despite its injury, the calf appeared to be swimming freely. It now has to survive the Southern Ocean on its journey to the sub Antarctic, where it will spend summer.



Humpback whale calf photographed off Wilson's Promontory, 22 October 2018 by Angela Bahler

Citizen scientists across the country cooperated in 'tracking' the miracle calf. From the photographs taken of it in Hervey Bay, the calf was able to be identified in Victoria due to its distinctive scarring.

Dolphin Research Institute's "SKINMAP" software was used to precisely "map" the shape of the calf's dorsal fin and injury in digital images, providing an almost certain confirmation that it is the same individual.

These citizen scientists provide data for the Two Bays Whale Project, which is a collaboration between Wildlife Coast Cruises, Dolphin Research Institute and Killer Whales Australia.

The 2018 Two Bays Whale Project Report has found an increase in sightings of humpback and southern right whales in Victoria. There were 275 confirmed separate sighting events, of 592 estimated individual animals. Killer whales were also reported.



## MELBOURNE AMBASSADORS COME CLEAN IN 2018



The Ambassadors from across the Melbourne region had a busy start to 2018, with four trips on Moonraker on Port Phillip and four peer teaching workshops. Thank you to the host schools and their co-ordinators, Deb at St Justins PS, Sarah at St Judes PS, Carmela at St Macartans and Matt at Woodleigh, Penbank Campus. These photos are from the workshop at St Judes Primary School, Scoresby.



At these workshops, the Ambassadors learnt how to teach junior students about Victoria's marine treasures, and the issues facing them. Role-plays were important (and fun!) in this. One of the key messages was that it's difficult for dolphins and other marine creatures to find food when there's rubbish in the ocean.



After some rehearsals, the Ambassadors took their messages to the younger students. Everyone had a great time, and learnt some very valuable lessons. Well done to you all!

## INTERNATIONAL WHALING COMMISSION CASE STUDY ON DOLPHIN TOURISM IN VICTORIA



A case study on the management of dolphin tourism in Port Phillip is featured in Whale Watching Handbook published by the International Whaling Commission and the Convention on Migratory Species.

The publication aims at providing the industry, regulators and the general public with the best information to ensure that the sustainability of whale watching around the world. It's estimated that 13 million people go whale watching each year, spending over \$2 billion.

The case study about our Port Phillip dolphin tours follows the history of the establishment of regulations in the 1990's and the ongoing 'Adaptive Management' aimed at increasing compliance to minimise the impacts on our resident dolphins.

The Dolphin Research Institute is proud to have played a key leadership role in the development of the legislation and regulations in the 1990's.

We led the establishment of a forum with tour operators and the government to develop a code of practice which later morphed into the first regulations.

DRI conducted research during the 1990's to answer critical questions that informed the amendments to the Wildlife Regulations in 1997 and the subsequent regulations and licensing. Victoria led the world in the management of dolphin tourism.

The regulations have been reviewed in 2008 and again now in 2018, providing ongoing improvements to protect our dolphins.

You can read the DRI's submission to the current review [HERE](#).

You can read the IWC Report [HERE](#).

The images at the top of the page show Moonraker Dolphin Swims operating in Port Phillip Bay. Moonraker supports DRI's '*isea, i care*' Ambassador Program and also donates a dolphin swim tour for new members of our Adopt-A-Dolphin Program.

## INSPIRING TEENAGE AMBASSADORS



An exciting new chapter in the Dolphin Research Institute's successful '*i sea, i care*' program began this year. We now have passionate marine ambassadors in local secondary schools.

The secondary program is for Year 10 students who have a strong interest in science and are considering a career in marine science. Importantly, it is an alternative to work experience, which we are often contacted about but unable to support. So far, six schools and a total of 39 students are working with, and being mentored by, our Education and Research staff.



During the year-long program, students investigate, with the support of their teacher and DRI staff, a marine-based issue about which they are passionate. The students then develop audience-appropriate, evidence-based presentations. These will be shared with their peers and their local community, and beyond.

The Ambassadors take part in workshops across the year. The most recent workshops introduced them to how scientists monitor dolphins from land. They learnt how to use marine binoculars and record sighting data. This was then put to the test during a field session at Schnapper Point, Mornington in search of the resident common dolphins.

DRI is proud to be expanding our '*i sea, i care*' program to secondary schools. Eventually we hope to have '*i sea, i care*' communities and '*i sea, i care*' schools caring for our dolphins and our bays.

Contact our [Education team](#) for more information about this exciting new program. The initiative has been funded by the Port Phillip Bay Fund.

You can help too! Join the Dolphin Research Institute's new '*i sea, i care*' Communities and .... ACT SHARE SUPPORT - free, easy, useful and fun!



## DANDENONG AMBASSADORS TAUGHT A LESSON



The Ambassadors from the Dandenong region had seen and experienced how amazing our marine environment at Ricketts Point Marine sanctuary earlier in the year. Now it was time for them to learn the skills necessary to teach the message of caring for our bays.



The peer teaching workshop gives Ambassadors the skills and knowledge of how to present to their peers and community groups. It also builds their confidence in public-speaking.

With interactive games, crazy role plays and colourful props, the Ambassadors got to grips with eating like a sea star, yawning like a seal, camouflaging like a decorator crab and pretending to be hungry dolphins in a sea of plastic. All in a days' work for our amazing environmental champions.



The Ambassadors take these activities back to school and the wider community with the aim of influencing real behavioural change to protect our marine life.

## SOUTH CHANNEL AND FORT



The South Channel is the only pathway for ships to enter Port Phillip on their way to Melbourne. It is a remnant of Port Phillip's past when sea levels were much lower and the Yarra and other rivers carved a path to Bass Strait.

The South Channel Fort is an artificial island about 6 km north east of Sorrento. It was built as part of the fortifications to protect Melbourne at the peak of the 1880's gold rush when we were one of the most wealthy outposts of the British Empire.



Disappearing guns and over 100 soldiers living on the tiny island from 1880 to 1916 guarded the South Channel against foreign invading ships entering the bay.

The South Channel Fort is managed as part of the Point Nepean National Park and can be visited by boat and organised tours.

The Fort is important environmentally, being of conservation importance as a breeding site of the white-faced storm-petrel, little penguin and black-faced cormorants. It is a popular diving site.

## PROTECTING DOLPHINS – TICONDEROGA SANCTUARY



Protecting our bay's dolphins takes requires understanding the risks through research and delivering change through education and working with the community and government. This is what the Dolphin Research Institute has done since our formation in 1991.

Early research showed that the resident bottlenose dolphins frequently used the Point Nepean area as a place to feed and congregate. It is also a place that is calm on southerly blows so boats love to speed very close to shore. The satellite image above shows that the beach drops off to deep water very close in, providing assistance to dolphins herding fish.

The Institute worked with the state government to have this area proclaimed as the Ticonderoga Dolphin Sanctuary in 2004.

Vessels are required not to approach dolphins closer than 200m within the sanctuary which stretches from Observatory Point to Police Point.

Elsewhere in Victorian waters vessels may not approach dolphins closer than 100m (jetskis 300m).

**Whale and Dolphin Watching Regulations** Please obey the minimum cetacean approach distances: See [HERE](#)  
Dolphins: 100m boat, 300m jetski. Whales: 200m boat, 300m jetski. Download regulations [HERE](#). What to do if you find a stranded dolphin, [HERE](#)



Ticonderoga Bay gets its name from the "fever-ridden" Ticonderoga carrying over 800 people to Victoria in 1852 at the peak of the Gold Rush. About 70 people died and were buried at Point Nepean. The living were quarantined until they had a clean bill of health.



Part of the original Quarantine Station at Ticonderoga Bay, seen from the water.

It was used as a quarantine station until the mid 1900's and then the army took it over for officer training and a school of army health. Anecdotes from soldiers at the time, talk of "dolphins putting on displays alongside army parades with full brass bands".



## WHALE OR A WAVE?



With the annual migration of whales northward in full swing, sightings of these cruising tourists are occurring around the coast. However, some people are finding it difficult to know what exactly they are looking for.



Not all whales are as obliging as this humpback off Portsea, or the two above at Mount Martha. In fact, whales might be swimming past you without you knowing. They can hold their breath for some time, so you might not see them, even if they're there! The exhaled breath is known as the 'blow'. The blow that looks like water is actually a vapour of warm air and lung secretions that condenses as it hits the colder sea air.

It's bit like us breathing fog on a cold day looking for whales.



On a still day, the blow can be seen for a few seconds. (Image right of a pygmy blue whale: Sue Mason, DRI Research Director).

Humpback whales have a 'bushy' blow of up to 3 metres, whereas the southern right whale blasts out a v-shaped blow up to 5 metres!

Below are two humpbacks off Phillip Island, image taken by Renee de Bondt from Wildlife Coast Cruises.



Most people looking for whales will be on high ground, hopefully with binoculars. Even so, it can be difficult to tell between what is a whale, a wave or a small fishing boat. That's the fun of whale watching - you never know what's out there!

## OUR DOLPHINS MAKE MELBOURNE HOME



Photo: Giuseppe Carollo

Sightings of bottlenose dolphins in the Yarra, and in the Maribyrnong and Patterson Rivers over the past week, provide an exciting reminder of Melbourne's close connection to our wonderful bay.

This connection is two-way, meaning that the products of our lives in the suburbs where 5 million of us live, flow down the rivers, creeks and drains -- to the dolphins' home in our bay.

It's fantastic to see dolphins so close to town. This is not an everyday event, but we do have sightings in our database going back nearly 27 years. Dolphins have been seen as far up the Yarra as the Chapel St Bridge and in the Maribyrnong far beyond the racecourse. Dolphins were also recorded in the Yarra in September last year.

This time, we are concerned for the health of these dolphins and the wider bay, with the flood of dangerous chemicals into the waterways following the recent industrial fire and reports of dead fish, eels and birds. The above video is quite close to the "trouble spot".

We suspect the dolphins are following fish that migrate into the rivers. It's natural for dolphins to do this and there is generally no need to intervene.

Port Phillip is home to resident communities of approximately 120 bottlenose dolphins and more than 30 common dolphins.

It is remarkable to have these dolphins living in our backyard, when many coastal communities around the world are losing their resident dolphins. We need to protect their environment.

It is important for the public to respect our dolphins and obey the dolphin watching regulations. **People shouldn't deliberately approach dolphins closer than 100 metres in boats, 300 metres on jetskis or 30m for paddlers and swimmers.**



## KINGSTON AMBASSADORS CATCHMENT WORKSHOP 2018



The day was all about Melbourne Water litter traps, our waterways and the abundance of marine life found in between. With so many fantastic Kingston Ambassadors keen to get stuck into the workshop, schools were divided into groups and spent the morning rotating between activities.



Many thanks to Mitch and the crew from Melbourne Water. They took the first activity - sifting through one of the litter traps in the Reserve explaining their purpose and the positive impact the traps have throughout our many waterways.

The second activity was exploring some of the invertebrates that can be found living in the water. Through multiple water samples, Ambassadors were able to get nice-and-close, isolating and identifying anything that caught their eyes. The final rotation was all about water-testing; why it's important to survey the health of our waterways and how it's done.



In the afternoon, Ambassadors travelled down the Mordialloc beach, braving the cold winds to complete a litter collection and litter audit. To complete the Baykeepers litter audit, Ambassadors set-up three isolated quadrants at the high tide mark, mid-beach and top of the beach.



By sifting through the quadrants, Ambassadors completed a survey on the various artificial materials identified in each. Well done to our Ambassadors for stepping-up to the task and making it so successful.



To finish off the workshop, we all walked along Mordialloc Creek to check out two litter traps that filter water coming from as far as Dandenong. To the wonderful parents and teachers who come along to workshops - thank you for getting involved and helping these days run so smoothly - without you we wouldn't exist! And to our Ambassadors - your passion is what makes days like this such a joy.



At the Catchments, Litter and Pollution workshop the Kingston Ambassadors discovered the link between inland areas and the bays through rivers, creeks and drains. The human impact was explored through litter surveys and collections, investigating the invertebrate diversity of wetlands and testing for water quality.

## WHALE SPOTTING FOR BEGINNERS



Notes for Land-based Novice Whale Watchers.

1. You might not see any whales
2. Use binoculars
3. Be somewhere high
4. Wear warm clothing
5. You might not see any whales



The notes above are as true for experienced whale watchers as they are for beginners. To get around some of these hurdles you can go on whale-watching trips. These increase your chances of seeing whales, you can keep warm inside the boat and sometimes the whales are so close your binoculars will get wet from the whale's splashes. (But - Notes 1 and 5 still apply).

Binoculars are very useful when looking for whales from the land. However, some people can feel quite sick when using binoculars for too long. It's often a good idea to scan the water without binoculars initially, and zoom in on **suspicious waves or strange shapes** with the binoculars. From here you should be able to distinguish whales from waves and small fishing boats.

Waves that look a bit odd are worth getting the binoculars in action. **What you are seeing might indeed be the 'blow' from a whale.** This is the cloud of exhaled vapour from the whale's lungs each time it breathes out in to cooler air (like our 'foggy' breath when we are waiting for whales in winter).



Humpback whales - photo Renee de Bondt, Wildlife Coast Cruises

Humpback whales have a 'bushy' upright blow, and southern right whales sport a v-shaped blow. How often the blow occurs depends on what the whale is doing. Humpback whales might breathe up to five times over a couple of minutes, and then dive for five or more minutes.

# Dolphin Research Institute 2018

**The two most common whales seen** in Port Phillip and Western Port are humpbacks and southern right whales. Humpbacks are travelling from Antarctica where they have spent the summer. Humpbacks feed in the Antarctic, migrate north to mate and calve somewhere in Queensland. Gestation period is 12 months so a female that mates this season will have her calf when she returns north next year. Mothers with new calves are the last humpbacks to travel south from Queensland, this is so the calf can fatten up and develop their bond before they hit predators like killer whales and return to colder waters.



Southern right whale - small, squarish pectoral fins

Southern rights migrate to the sub-Antarctic during summer. They have high site fidelity in relation to breeding. Calves that are born in places like Logans Beach, typically return to the area to have their own calves..... or so it was thought. A couple of whales have bucked the trend in recent years.



Humpback whale - long, tapered pectoral fins

Besides different-shaped blows (which you can't see on a windy day anyway), the two easy ways to tell humpbacks and southern right whales apart are by their \* pectoral fins (flippers) \* dorsal fins (the fin on its back)

Humpback whales have really long pectoral fins and a small dorsal fin. Southern right whales have short, squarish pectoral fins, and no dorsal fin!

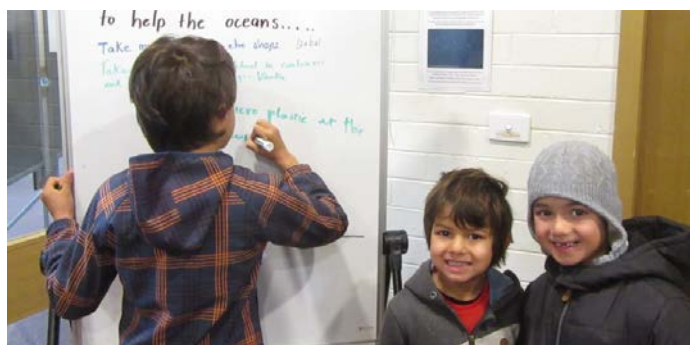


Don't forget to [report your whale sightings](#)! It's super easy, and very important.

The Two Bays Whale Project is building up a valuable database of the whales in the area. Even if **you** don't see any whales, you can follow where they are being seen on the [Two Bays facebook](#) page.



## COMMITTING TO THEIR FUTURE



What I will commit to do to help the oceans.....



A lot!! That was the answer from young festival goers at the recent Island Whale Festival, Port Phillip. Commitments included using re-usable water bottles, collecting rubbish from the beach and using containers for school snacks!



With a guest appearance from 'Bottles' the DRI dolphin, there wasn't a lot of room for some people to make their commitment!

With the weather being suited more for whales than people, it was great to see so many people enjoying the Festival. DRI was also busy with whale-watching from windy lookouts and amazing story-telling in and around our inflatable whale.

Thanks to our research and education teams, and our wonderful volunteers, who made the Island Whale Festival such a success.



## SMALLEST NEWBORN HUMPBACK WHALE IS AMAZING!



### Smallest Newborn Humpback Whale Recorded In Victorian Waters Amazes Researchers

The discovery of a newborn humpback whale in deep water off Cape Woolamai recently is only the third ever recorded in Victorian waters. Based on the calf's appearance, and comparing images from previous sightings, this is by far the youngest humpback whale calf on record in Victorian waters.

Dolphin Research Institute (DRI) researchers believe the calf was only hours, or at the most 2 days, old. It was pale, under 4 metres long, its dorsal fin was flopped over, and it had a disproportionate rostrum and prominent foetal folds. The foetal folds are creases in the calf's skin and insulating blubber caused by being curled up in the womb. These folds are prominent in newborn whales and dolphins, and typically fade as the calf matures.

It's possible that our cold waters could be dangerous for the calf. David Donnelly, DRI's Research Officer (below), said "the mother was one of the largest humpback whales the DRI team has ever observed anywhere, possibly nearly 16 metres long and very girthy". Hopefully the mother's size and condition indicates an experienced mother and she will be able to slowly move her calf to warmer waters before they return to the Antarctic feeding grounds in the coming summer.



She needs to be "girthy" to have the reserves to supply her calf with the many hundreds of litres of milk every day during the 10-11 months until the calf is weaned.

Humpback calves are usually born and spend their first months in warmer waters off northern New South Wales and Queensland, unlike southern right whales that normally give birth in Victoria's relatively cold waters

DRI's research team left the pair after just 10 minutes to minimise interference at this crucial stage of the calf's life. Our approach is strictly controlled under a research permit. It's important to remind vessel skippers not to approach whales closer than 200m in a powered vessel or 300m on a jetski.

This is a very unusual event and extremely important addition to the Two Bays Whale Project Victorian database, which so far in the 2018 season has recorded record numbers of humpback whales off Victoria's central coast.



## MELBOURNE AMBASSADORS SEE THE LITTER IN 2018



Banyan Reserve in Carrum Downs will be well-remembered by Ambassadors from the Melbourne region in 2018.



It was here that Ambassadors found out about litter traps, freshwater invertebrates and water testing. Thanks again to Melbourne Water and the crew for explaining about the litter traps and catchment issues. The Ambassadors could see and smell just what's in a litter trap - at least it's in the trap, not the bay!

The Ambassadors conducted a litter survey and collection on Frankston beach as part of the Australian Marine Debris Initiative.



The afternoon finished with a walk along Kananook Creek to the floating litter trap. The Ambassadors were impressed by how much rubbish doesn't make it in to the bay, but shocked that such huge amounts of litter and debris flow into our waterways. They realised that what we all do in the catchments can affect much more than we think!





## CASEY AMBASSADORS SET SAIL IN 2018



The boat trip on Kasey Lee on Western Port to the fur seal colony at Seal Rocks is a great way to start the City of Casey Ambassadors' year and helps motivate them to become strong champions for our marine environment.



It was a stunning day out on the Kasey Lee. We had calm conditions and even the rain held off for us. Seal Rocks were as amazing as always.



Lots of bulls and new pups born in the last week made for an awesome experience with the new Marine Ambassadors.



Many thanks to David Westlake and the environment team from the City of Casey, and of course Wildlife Coast Cruises crew for a fabulous trip.

## BAYSIDE AMBASSADORS FINISH 2018 WITH A FLOURISH



The rock pools in the marine sanctuary at Ricketts Point were the perfect place for the last workshop for the Bayside Ambassadors of 2018. They first examined the seaweed beds and deep pools full of tiny fish, and scrambled across the limestone looking at crustaceans and molluscs of all shapes and sizes.

The beautiful bay of Port Phillip reminds us that the ocean is the life force of this planet, and that sometimes the world behaves as though we have somewhere else to go!



Then it was back to the Marine Education Centre at the life saving club for a dive into the microscopic world of sea grass. The Ambassadors pitted their skills of fin identification against our whale and dolphin photos before learning about the region's rich indigenous culture, both past, present and most importantly, future.



Congratulations to all Ambassadors for an amazing year of hard work and real achievements in your school communities. Well done to the following award winners

School Winner - Sandringham East

Schools Highly Commended - Beaumaris and St Josephs

Outstanding Contribution - Kristy Cullen, Sandringham East

Parent Helper- Fiona O'Sullivan (St Joan) Ian Hart, Julia Kent-Hughes and Rebecca Mackiggan (Hampton).

Many thanks to Dean Stewart from ATEAM for your wonderful knowledge and enthusiasm, and Margaret Hewitt from Beaumaris Life Saving Club for your support.



## MORNINGTON PENINSULA AMBASSADORS GIVE BACK...

### Warringine Park- 60,000 years in the making; final farewell for 2018

Jacks Beach Reserve at the southern end of the Park is the perfect place to learn all about the flora, fauna and indigenous connection to the land in Warringine Park. European settlement changed the landscape into farm land until about 30 years ago. Since then it has slowly been returning to something like its original habitat, with salt marshes, mangroves, melaleucas and eucalypts.



The Ambassadors learned about the native frogs of the area, native animals and some of the pests that the rangers have to deal with; which plants were weeds and how to successfully remove them - and the indigenous heritage and healing nature of the land.

After working in this reserve for 8 years with the Ambassadors, the path down to the foreshore is now almost completely clear of weeds, all due to the work of the kids.

Congratulations to all Ambassadors for an amazing year of hard work and real achievements in your school communities. Well done to the following award winners

Ambassador Winners - Nathan Vu (St Justins), Keely Butcher (St Augustines)

School Winners - Stella Maris and Kunyung

School Highly Commended - Woodlands

Fundraiser - Park Ridge

Outstanding Contribution - Glen Jepson (Kunyung) and Ebony Jenkin (St Josephs, Crib Point)

Outstanding Parent - Kat Watt (St Judes, Scoresby) and Kylie Connelly (Lysterfield).

Many thanks to Gerard, Hannah and Anthony from Mornington Peninsula Shire, and Lionel Launch from Living Culture, for their wonderful knowledge and enthusiasm.

