







isea i care communities

RESEARCH - EDUCATION - LEADERSHIP SINCE 1991 www.dolphinresearch.org.au | 03 5979 7100



i sea i care COMMUNITIES









RESEARCH

In 2020 we worked on:

- A new project on Western Port bottlenose dolphins, involving citizen science, university interns and volunteers.
- Monitoring the health of the vulnerable common dolphins in Port Phillip.
- The Two Bays Whale Project and Victorian humpback whale catalogue.
- Intern programs to help develop the next generation of scientists.

EDUCATION

In 2020 we provided:

- Marine education programs for about 2,000 primary, secondary, tertiary, early education students during Covid-19.
- Programs for adult groups and community events.
- Mentoring for education students.
- Innovative on-line education.

LEADERSHIP

In 2020 we worked on:

- Developing over 500 young leaders in our 'i sea, i care' Ambassador program (bringing the total to 7,000 since 2001).
- Establishing our 'i sea, i care'
 Communities program to empower the wide community to protect our bays.
- Actively influencing investigations and policy development relevant to marine and coastal protection.

The Dolphin Research Institute helps Victorians to care for our dolphins, whales and their environment, especially our wonderful bays.

Since 1991 supporters like YOU have helped to provide solutions through innovative research, marine education and environmental leadership, to create lasting impacts on laws to protect our dolphins, and culture in our *'i sea, i care'* Ambassador school communities.

You can help by: Joining Adopt-A-Dolphin, becoming a Regular Donor, booking an Education Program, Reporting sightings, Volunteering, and having your group join our *'isea, i care'* **Communities** Program.

Dolphin Research Institute | Western Port Marina, Hastings 5979 7100 | www.dolphinresearch.org.au



DRI Snapshot



Baby Dolphin Rescue



Welcome to our Summer 2020 Snapshot.

We hope that you and your families are coping well during these challenging COVID-19 times.

Since our last update when field research started again, it stopped and now again, is beginning to restart - what a year!

I am very proud of our team's resilience and commitment to still achieve our 2020 goals for Research, Education and Leadership.

I am also proud of the awards our programs have achieved this year (p7). As this goes to press, we can announce that Mandy Robertson, our Education Director, is a finalist in Victorian Environmental Education Awards.

The previous page outlines our goals and the following pages shows our work to achieve them. I hope you enjoy reading about the progress your support helps to make.

People are the common thread throughout. They magnify our efforts to achieve a far greater impact than we can do alone.

People are part of the solution but are also the challenge. Surveys show that during 2020, public concern for the environment has plummeted, meaning that **in a post COVID-19 world our work will be more crucial than ever.**

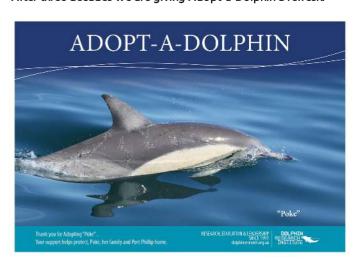
It's why our new *i sea, i care'* COMMUNITIES program aims to develop whole community stewardship. Community champions, like in our schools, will help us achieve behaviour change needed to reduce coastal pollution.

As part of our Leadership role, this Summer we are launching a world-first program to improve how people on the water behave around dolphins. In an evidence-based approach we are building bridges to organsiations, including yacht, lifesaving, Jet ski, seakayak and other groups, to seek commitments to "Dolphin Distancing".



From early December you will be able to "commit to respecting dolphins" on our website and we will send a sticker to proudly show on your vessel. Please help us to create a wave of good this summer and share the campaign.

After three decades we are giving Adopt-a-Dolphin a refresh.



We feel that our common dolphin community is so unique that we have selected four dolphins to rally support and recruit new supporters.. They are Poke, V-Nick, Tall Fin and DD. Poke and V-Nick are successful mothers, Tall Fin is a resident male and DD is an accident-prone survivor. Most are featured in this edition.

For existing supporters, your membership will stay the same but if you would like to update to a one of the individual dolphins, please email or ring and we can arrange that for you.

Of course nothing could happen without supporters like you. Everyone of you are part of our achievements.

Please support our Summer Appeal. Follow this link (if reading online) or paste it in your browser.

https://www.dolphinresearch.org.au/

Looking forward to hearing from you.

Jeff Weir OAM, Executive Director director@dolphinresearch.org.au 03 5979 7100



Dolphin Research Institute | 03 5979 7100 PO Box 77 [Western Port Marina] Hastings Vic 3915 www.dolphinresearch.org.au | admin@dolphinresearch.org.au DRI is a Registered Charity with the ACNC. ABN 73097317112

STORIES OF SURVIVAL



This photo of an awkward young calf with its mum opens the door to a story of survival and three generations of common dolphins living in our bay. (The strange line on the calf's head is the edge of the water running along its skin - not an injury.)

The mother is a dolphin we call Marinna, named after a dear friend of DRI, she is the first calf of "Almost Clean Fin".

Marinna has survived two injuries, the first in 2015 left her with the dark scar on the rear edge of her dorsal fin (you can see in the image). The second in 2016 was more severe with a large injury to her back, still visible as a deep "v-shaped" scar (just behind the head of her calf). Maybe Marinna is accident-prone? We don't know for sure what caused her injuries - whether a propellor or a predator.



Another survivor is a dolphin we call "DD" (for damaged dorsal fin). DD is shown above in between two other dolphins. The dark scar on its fin is possibly from a close call with a propeller in 2013.

What's important is that the healing of DD and Marinna having a calf, the third generation in Port Phillip, is a good sign for the resilience of the common dolphin community as a whole.

EXCITING NEW CALVES...



It was wonderful to see two energetic common dolphin calves last week during our first Port Phillp survey since July. We think the larger calf belongs to Ragged Fin, who we have known since 2007.

The smaller calf belongs to Poke and you can see faint stripes on its side. These stripes are "fetal folds" caused by being scrunched up in their mother before birth. They usually fade by 3 months, suggesting that this tiny calf is probably only 6-8 weeks old.



Early analysis shows positive signs for this dolphin community, with low levels of skin lesions and a healthy distribution of age classes. This information will be shared with wildlife managers.

Your support makes this long-term study possible. Please support our Summer appeal.

(All photos are taken under our scientific research permit by David Donnelly or Jeff Weir).

A WHALE FIRST FOR OUR WATERS...

A research survey off Phillip Island in July, just before COVID-lockdown, turned into a remarkable day of discovery.

In a first for our waters, we documented a humpback whale displaying three separate feeding strategies in what was clearly much more than casual "snacking" sometimes seen during their northerly migration.

The three feeding styles were:

- "Skimming" which is the comparatively casual filtering of food as they swim.
- "Lateral Lunges" where they rapidly lunge forward or to the side and the pleats on their throat bulge with huge amounts of water and food taken into their mouth.
- "Vertical Lunges" where they surge from under their prey and come vertically out of the water, again, their throat bulges with the huge volume of water and food.



Firstly the humpback whale's "vertical lunge" after approaching the food (small fish in this case) from below. You can see the black baleen at the top of its mouth and the water gushing through the baleen further back.





And lastly the common dolphins and seals accompanied the whale, sometimes actually riding on the whales head (above image). We think they might have been picking up fish that were escaping the whale.

TWO BAYS WHALE PROJECT



The Two Bays Whale Project team just added the 150th humpback whale fluke to the Victorian catalogue. This image was taken by Colleen Gilbee whilst onboard with Wildlife Coast Cruises during a Wilsons Promontory whale watch cruise.

What's even more exciting is that VIC_0150 had a calf with her!!! Thanks to Serra Clisby for enabling access to this image and the accompanying data.

Reaching this milestone is quite remarkable given the challenges here in Victoria in for more or less the entire humpback whale season. Hats off to the passengers and crew of Wildlife Coast Cruises for helping the Two Bays Whale Project in 2020!

INTERNS CONTRIBUTING TO GREAT OUTCOMES



Like our education programs, we shifted to Zoom and remote access to our file server to access images for photo-ID and working on the skin health project. Bruce Weir helped to supervise interns, in his retirement after 40 years at Monash Uni.

We brought all our interns together in January to create momentum with their assistance - at the same time giving them some valuable experience - a true win-win. Then came social distancing and remote working!

So what did these remarkable interns help us achieve?

- Pod Surveyor and Two Bays Tracker, two new research apps to support a Western Port Citizen Science project and a new component of the Two Bays Whale Project.
- Further work on the dolphin health project.
- Some surveys before social distancing stopped us.
- A review of the best practice approaches for citizen science and the benchmarking of our programs to improve what we do.
- The development of online training programs for Fin-ID analysis, including a quality control process to validate the work of researchers.
- The establishment of our 'i sea, i care' Communities web portal and first interviews with marine champions.
- A review of the behavioural change literature to ensure that our social marketing programs and the development of 'i sea, i care' Communities are based on the right principles.
- We also finished an engagement program, yet to be launched, called 'Bay Match' where participants answer a series of questions to find out what marine creature they are most like!

We are very lucky to have so many talented young scientists prepared to both contribute and learn. With all that is going on it gives a glimmer of hope for the future.

'I SEA, I CARE' COMMUNITIES PROGRESSES















Thanks to the creative work of Monash Interns, Marta and Frances, our 'i sea, i care' Communities Portal is now live on our website. (https://www.dolphinresearch.org.au/isicmain)

- We have wonderful stories about our local marine treasures a great place for education and interest.
- Stories about ISIC heroes local people who are leaders in helping protect our marine environments.
- ISIC Businesses who support our programs and do other things to help the seas.
- Proven Actions that we can all do to help protect our marine world.

We are adding new stories every week and are looking for all types of organisations to join in. We want to tell the stories of their heroes and help us share the stories to their communities.

Please contact us to get your group involved. 59797100 or admin@dolphinresearch.org.au.

UNCOVERING THE MYSTERY OF WHALE MIGRATION...

The mystery of why humpback whales visit Victorian waters is being solved thanks to an Australia-wide collaboration of citizen scientists.

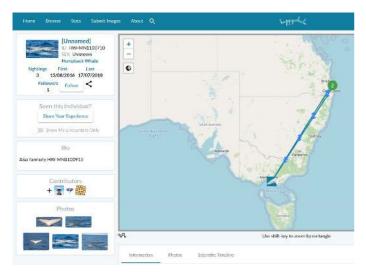
DRI's Two Bays Whale Project in partnership with Wildlife Coast Cruises, has worked with local citizen scientists and online data-sharing platform Happywhale (an online fluke-matching project) for five years now.

David Donnelly, our Research Officer, curates the sightings and uploads fluke images to Happywhale, for matching against images from other locations.

Citizen scientist, Beck Holder photographed whale "VIC_0071" (below) off Wildlife Coast Cruises vessel 'Brianna Lee' on July 2 2018.



This week we received the news from Happywhale that Beck's "VIC_0071" photo matches a fluke photographed off Queensland's Stradbroke Island on July 17 2018.

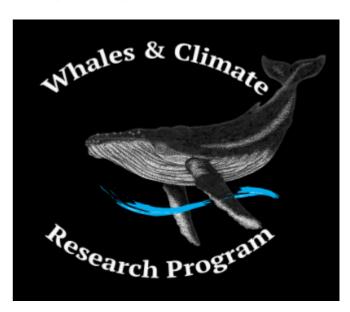


"VIC_0071" had swum about 2,000 km in 15 days!

Beck was super excited to know that 'her' whale had been resighted and is now keen to see if she can photograph him or her again in 2020 - good luck Beck!

Thanks to the Two Bay's Whale Project we now know for sure that at least some whales visit central Victoria on their migration to Queensland. This understanding contributes significantly to the conservation of marine mammals in out waters.

DRI JOINS INTERNATIONAL PROGRAM...



We are excited to announce the official launch this week of an international multi-disciplinary program to investigate the effects of climate change on whales in the southern hemisphere.

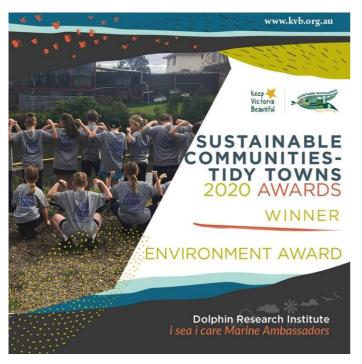
The project is driven by Griffith University and five other universities from South Africa and South America. The Smithsonian and Australian Government support it.

The Dolphin Research Institute is proud to be a formal collaborator through our Two Bays Whale Project.

DRI's contribution is significant, providing important information on whale movements in south-eastern Australia, an area which previously was poorly represented in the data.

We would like to acknowledge all the citizen scientists who have contributed their sightings via the Two Bays Whale Project. This is just one way in which the information you have shared is assisting in the conservation of whales in our part of the world.

AWARD FOR 'I SEA, I CARE'



The ISIC program wins the Keep Victoria Beautiful Sustainable Communities Tidy Towns 2020 Environment Award!! We would like to express our gratitude to our fabulous council partners, ISIC coordinators, parents, and our amazing 2020 Marine Ambassadors, without YOU this award would not have been possible!

We are thrilled with this recognition of our program which over 20 years has mentored 7,000 young ambassadors.

It is a tribute to the dedication of Mandy Robertson and the Education team who work so hard to provide an engaging program that empowers our Ambassadors.

It is especially appreciated during this challenging year, where the innovations needed to make the program possible have been so popular with Ambassadors. We are planning to deliver online options in 2020 to supplement our face to face excursions!

NATIONAL AWARD - FESTIVAL



A HUGE congratulations to all partners in the Island Whale Festival for taking out the national "Best Small Event" category at the Australian Event Awards.

The festival began in 2016 as the "Winter Whale Festival". It grew out of the Two Bays Whale Project thanks to staff from Wildlife Coast Cruises, the Dolphin Research Institute and support from IFAW.

Destination Phillip Island came on board and has steered the festival from humble beginnings with 300 people, to a 10,000 participant event. The success is the result of a team effort which includes Phillip Island Nature Park and other local partners.

DRI's team provides education and research programs during the festival with our inflatable whale and "spot-a-whale" sessions from coastal vantage points - mostly booked out.

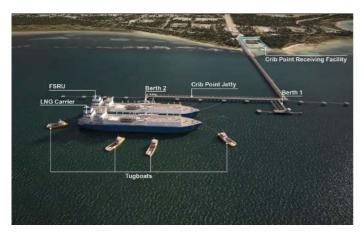


The festival provides a fantastic opportunity to recruit citizen scientists for the Two Bays Whale Project. 2019 saw a 400% increase in sightings of whales.

The Institute is proud to be a founding partner of the festival and very much looks forward to a future when we will again be able to get families into our giant whale!

Well done Destination Philip Island and all.

DRI Submits to AGL EES



DRI lodged our submission to the 11,000-page Environmental Effects Statement (EES) pertaining to AGL's proposal to establish a Liquid Natural Gas (LNG) import facility with Floating Storage and Regasification Unit (FSRU) at Crib Point (Imaget: AGL EES)

The proposal is in a region of significant and sensitive environmental values, including Western Port's status under the Ramsar Convention and as a UNESCO Biosphere.

DRI is part of the Western Port community and shares the community's concern to protect Western Port. DRI believes that the environment is best protected through rigorous evidence-based decision making. It's concerning how these complex issues become adversarial and the respect for experts and evidence is lost from both sides. This is a recipe for poor decision-making that risks unintended consequences and poorer environmental outcomes. Our response concentrated on issues pertaining to the marine environment and came from a careful consideration of the reports and consultation with other marine scientists and groups.

CONCLUSION From DRI's submission to the EES.

The Project to develop an LNG import terminal in Western Port must only proceed if the proponent can demonstrate that the environmental risks to this sensitive, important environment can be managed and the environment protected.

DRI focussed our consideration of the EES on the marine environment and conclude that the Project should not be approved unless key deficiencies in the EES are rectified, and the result presented for public comment.

The matters we consider should be addressed are:

 The rationale behind the assigned risks needs to be discussed in an accessible manner. Initial risk measures, without the first level of mitigation, should be clear. This process should be peer reviewed, not just the initial studies, and be transparent.

- The treatment of uncertainty, cumulative, synergistic and residual impacts require more thorough treatment and clearly discussed as part of each risk assessment.
- Ecological System Models should be developed and applied to test assumptions and conclusions throughout the EES.
- Uncertainties about the residual Chlorine Oxidation
 Products and bioaccumulation should be more thoroughly
 considered.
- The accuracy of the information about marine mammals should be updated as suggested.
- If the Project does progress, long-term monitoring of the resident and visiting cetaceans should be incorporated in the Environmental Management Plan.

DRI's Submmission to the AGL EES https://www.dolphinresearch.org.au/regarding-the-agl-proposal-to-develop-a-liquid-natural-gas-import-facility-at-crib-point/

CLIMATE REALITY TRAINING

Climate change is one of the most important and challenging issues that we face and it's relevance to the marine environment that we all love cannot be underestimated. In September, members of the ISIC Education team participated in a Climate Reality training course to become Climate Reality leaders.



During a very challenging 2020, we were determined to not only keep across environmental issues, but also to adapt and improve the ISIC program to further inspire and empower ISIC Marine Ambassadors

ONLINE WORKSHOPS HELPING AMBASSADORS THROUGH QUARANTINE



A big thank you to our ISIC Council partners for their continuing support during an incredibly challenging 2020, and we are so proud of our Ambassadors for embracing our new and improved online ISIC workshops. During the first quarantine period, we had permission to film outdoors, and we visited various ISIC Council areas filming seagrass collections; rockpool rambles; marine and freshwater invertebrate identification; catchment and litter sort and report; and dolphin monitoring workshops! The Ambassadors loved the videos, with many commenting that it was almost like being there in person!





NATIONAL SCIENCE WEEK



We celebrated National Science Week 2020 by inviting some awesome scientists to give a daily presentation and Q&A session for our ISIC Ambassadors about their work, their passion for the marine environment and their science journey!

Special thanks to our guest presenters; Ben Francischelli from Museums Victoria for filling us with facts about all things fossils, Shannon Hurley from Victorian National Parks Association for highlighting the amazing world of sharks, Doctor Sue Mason for discussing her important research on Common Dolphins, and Doctor Bec Macintosh from Phillip Island Nature Parks for presenting her fabulous research on Australian Fur seals!

This was such an amazing opportunity for our Ambassadors to learn about the life of a scientist, and their questions were so inspiring!



POSITIVES OUT OF LOCKDOWN



Throughout this Covid journey, our regular online 'i sea, i chat' sessions have been a shining light that constantly inspired and motivated us to "keep on swimming". Our final session was a little bittersweet as we have got to know each other more than we would during a non-Covid year!

A diverse range of presentations on topics such as Climate Change, plastic issues, evolution, and marine conservation campaigns, and positive solutions and actions empowered Ambassadors. We also had many fantastic guest speakers, and student-led presentations, and these sessions were so popular we will be incorporating them into our future ISIC programs!

A HUGE thank you again to our wonderful Council partners, ISIC Coordinators, parents, and most of all, our fantastic ISIC Marine Ambassadors!

CREATURE FEATURES

2020 has become the year of "bringing education to the student", with the introduction of Creature Features. Over a dozen fascinating insights into the secret lives of marine creatures are being developed into "e-books" for our schools to use.



Be honest if you thought these were part of a jelly fish...

These are a common sight on sandy beaches around Port Phillip Bay in the spring, but did you know these are the egg masses of the moon snail? The female snail lays her eggs in a jelly material that absorbs water, swelling into the horseshoe-shaped sausage egg sac you find washed up on the beach. They can be three to five times the size of the snail that laid them. Due to their shape, they are sometimes called sausage jelly or jelly snags.





A selection of moon snail shells.

Moon snail egg sacs washed up on the beach.

If you hold the egg sac up to the light you can see the tiny eggs suspended in the jelly. More than half the eggs lie within a few millimetres of the outer surface. These eggs hatch first while others further inside the egg sac take longer. Oxygen diffuses from the environment into the jelly, so the eggs close to the surface have a better oxygen supply and develop faster. As the outer eggs hatch the jelly starts to break down allowing oxygen to reach the inner eggs. The whole jelly mass breaks down as the eggs hatch.

Once the eggs hatch the microscopic snail larvae join the plankton community and drift with the currents. The snail larvae do not look like the adult snail, they have a simple shell and three small lobes which help them move and catch food. Their shell is a transparent cap made of protein, not the hard-heavy material it will have as an adult. Predators abound within the plankton community and on the seafloor and only a small number of larvae become adult snails.

Guided by the chemical signatures of adult snails the larvae settle to the sand and complete their final metamorphosis into a juvenile moon snail. Adult snails are carnivorous and mainly feed on bivalves, that live in the sand. The moon snail uses its rough tongue and acid to drill a hole in the shell of the bivalves and eats the snail inside its own shell.



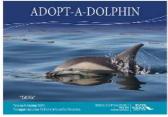
A bivalve shell with a hole made by a moon snail.

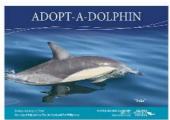


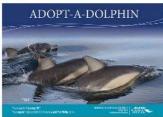
A hole made by a moon snail can be identified by its countersunk appearance.

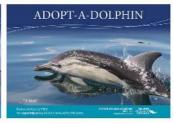
ADOPT-A-DOLPHIN - 2021

After listening to our members as we approach our 30th anniversary, we have updated the program to adopt individual dolphins.









We have: **Tall Fin** (the resident male), **Poke** (the champion mum of 4), **DD** (the accident-prone survivor), and **V-Nick** (the champion mum of 3).

Adopt-A-Dolphin members have been the heart of our organisation for three decades. They join our loyal family who trust us to make a difference. This is what they say:

"We Adopt-A-Dolphin because we trust the team and believe in their work to protect marine life and the bays."

"We have been part of the DRI family for over 20 years now, and love the visionary approach."

"DRI gives dolphins a voice – our family a voice – and a positive way to support marine life and conservation".

"It has and continues to be, such a rewarding journey".

Money raised through Adopt-A-Dolphin supports all the work you see in this Summer Snapshot: **Research, Education** and **Leadership.** All elements work together to protect our living marine treasures, especially our dolphins, whales and bays.

Adopt-A-Dolphin makes a perfect Christmas gift.

Gifting membership to a family member, friend, colleague, teacher or other important person in your life, not only shows how much you care about them, it also shows how much you care for the marine environment and its inhabitants. (It's also a perfect gift to yourself).

Adopt-A-Dolphin membership costs just \$98 a year (or a monthly gift of \$10 or more). Call us on 03 5979 7100 or go to our website www.dolphhinresearch.org.au

Thank You To Our Wonderful Supporters...

None of our work would be possble without the generous support from individuals our volunteers and citizen science participants. The many hundreds of loyal businesses who host collection tins and donate to our fundraising auctions. Special appreciation goes to Jean Weir, the JMS Foundation and our loyal Adopt-A-Dolphin members and donors (many for more than 20 years and up to 29 years).



Our partners with our *'i sea, i care'*School Ambassador Program.





Members of our Leadership Circle Program.

There are many ways you can support our work...

- Volunteer or become a formal intern.
- Join Adopt-a-Dolphin or give one as a gift.
- Become a sponsor
- Donate to appeals, or as regular giving or make a bequest.
- Commit to actions to reduce your impact.
- Host a DRI collection tin in your business.

Call us and speak to our team, email us, or go to our website for more information.

Dolphin Research Institute | 03 5979 7100 PO Box 77 [Western Port Marina] Hastings Vic 3915 www.dolphinresearch.org.au | admin@dolphinresearch.org.au DRI is a Registered Charity with the ACNC. ABN 73097317112