

MARINE & COASTAL CONNECTIONS

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Produced by MESAC: Marine Education, Science and Community Centre. Melbourne, Victoria



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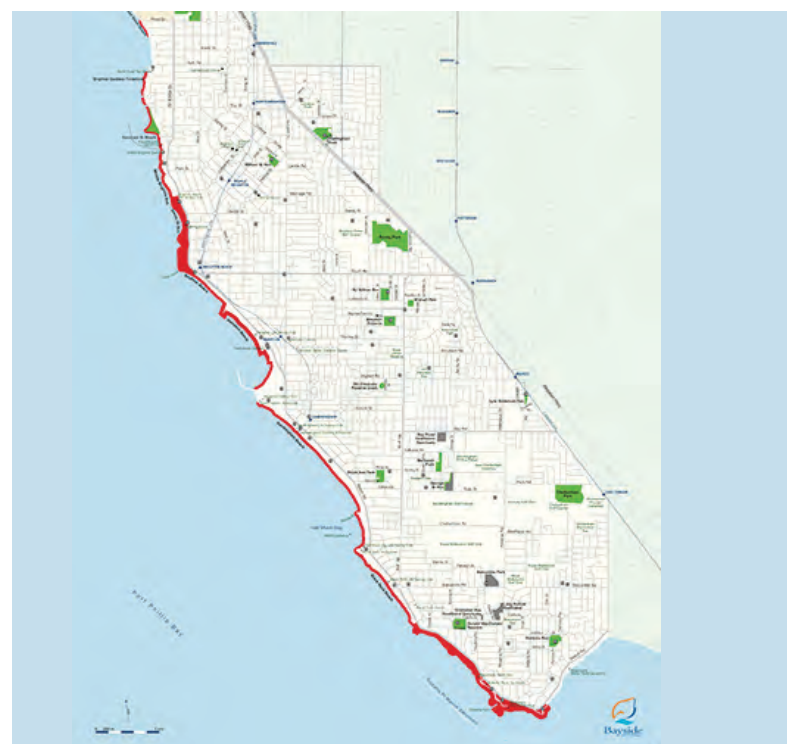
The spectacular Spider Crab aggregation has attracted large numbers of people fishing with nets, making huge hauls of crabs. Whilst so little is known about these crabs and their migration, many community members are concerned about the impact this may have on the Spider Crab population. The Spider Crab Alliance has formed to advocate for this special creature.

Feature article, page 4.

No butts

After a community campaign led by MESAC over the last 18 months, Bayside Council has announced that smoking will be banned on Bayside Beaches from June.

An amazing win for wildlife and the environment!



MESAC acknowledges the Bunurong people as the Traditional Custodians of the land and waters around Ricketts Point.

We pay our respects to their Elders, past, present and emerging, and we pledge to care for and protect the delicate and diverse life inhabiting this sacred place.

We also recognise the Traditional Custodians of lands and waters across the globe.



Dolphin Research



Photo courtesy of DRI

Over 40 common dolphins live in Port Phillip Bay. DRI's research team, including some very lucky interns, were privileged to capture this amazing footage showing social behaviours, including mating.

Dolphin calves are born after 12 months gestation. Images in the video of a fetal-fold calf swimming with its mother show what looks like vertical stripes. If you look closely, they are actually "puckers" in the new-born calf's skin. It's from being curled up inside mum before birth.

These foetal folds will fill out and usually fade by the time a calf is 3 months old. Being so prominent tells

us that the calf is only days old. Other recent surveys recorded older calves (about 6 months) and sub-adult dolphins (about 5-7 years). Seeing this healthy range of age classes is a very positive sign for this dolphin community.

Because of your support, we will maintain a vigilant watch on the health of these special dolphins.

This imagery was collected during a survey in March 2020 under a scientific research permit from the Department of Environment, Land, Water & Planning.

By the Dolphin Research Institute (DRI)

Magnificent Maori Octopus

This photograph of a magnificent Maori octopus was taken by Peter Dedrick at Blairgowrie.

Maori octopus are large and muscular, weighing up to 10kg. They feed on crabs, abalone, crayfish, mussels, fish and other octopuses.

They form lairs in crevices or burrows, recognised by the scatter of shells and crab parts around the entrance.



Photo by Peter Dedrick



Travelling turtle

After her release from captivity, a 180 kilogram turtle named Yoshi has excited scientists, who tracked her remarkable journey half way around the world.

20 years ago, Yoshi arrived at Cape Town's Two Oceans Aquarium after crew on a Japanese fishing boat found her with a damaged shell. Maryke Musson said, "...she crept into everybody's hearts, and settled down really quickly... And she had an enormous personality." They decided to release her into the wild when she gained sexual maturity. Prior to release, her preparation included daily swim training. Maryke Musson said the aquarium had rehabilitated and released more than 600 sea turtles in the past 12 years.

Yoshi spent her first year swimming up the west coast of Africa to Angola, before turning around and returning to Cape Town. Then she made a determined 37,000-kilometre swim across the Indian Ocean to the West Australian coast. Scientists have tracked her

journey over the last two years and think Yoshi may be returning to her birthplace, a turtle nesting site on Western Australia's Pilbara coastline. Aquarium staff believe it is the first recorded movement of a sea turtle between Africa and Australia.

Sabrina Fossette, a research scientist from WA's Department of Biodiversity, Conservation and Attractions, said it was very exciting. "This turtle spent 20 years in captivity and still, you put her in the water and she suddenly remembers she probably has something to do on the other side of the ocean and just starts crossing it," Dr Fossette said.

WA scientists will attempt to obtain biopsy samples to determine her origin, check her health, and to replace the satellite tracking device, which is nearing the end of its life.

Original article by ABC News, Pilbara 7 March 2020.



Photo by Jean Tresfon. ABC



March of the Spider Crabs

- how one of Victoria's greatest underwater spectacles could be under threat -

By AJ Morton (Dive2U) and Shannon Hurley (VNPA)

Every year, through March to July, our southern coastal waters are invaded by bizarre, alien-like crabs, aggregating in their thousands.

Covered in seaweed and sponges, a mass of legs crawling this way and that, they pile over one another in a hectic mass migration. Scuba divers, educators, coastal residents and nature lovers from all over the planet converge to experience this fascinating annual natural phenomenon.

We know very little about these crabs, such as how far they travel to moult, and whether they return to the same location each year. But one question that can answer is: "Why do the Spider Crabs travel from the depths of the Bass Strait to the shoreline shallows?" The answer is: to moult.



Photo by Matt Testoni

Moulting is an extremely vulnerable phase of the Spider Crab's life. The process of shedding a shell and waiting for a new shell to harden leaves the crab exposed, and easy pickings for predators such as the large Smooth Stingrays that cruise these waters. Moulting alongside thousands of other crabs increases their chance of survival.

Made famous by David Attenborough's BBC documentary Blue Planet II, the Spider Crab aggregation has become a tourism drawcard. In what would usually be an off-peak season for the Mornington Peninsula, crowds flock to this amazing sight. Unfortunately, with the fame has come some unexpected attention.

Aside from the usual passive observers such as photographers, educators and snorkelers, in 2019 the crabs faced intense fishing pressure. In 2020, the numbers escalated even further, with crowds of people with nets baited with chicken carcasses. There were also many observations of damage to marine life and risk to public safety due to the sheer intensity of fishing. After the event, discarded nets and chicken carcasses littered the sea floor, and led to increased shark sightings.



Photo by Jane Headley

The 'Spider Crab Alliance' includes representatives from the dive industry, conservation and education sectors and concerned community members. Together with other concerned groups, they have been meeting with the Victorian Fisheries Authority (VFA) to pursue a solution. At earlier meetings they presented 20,000 petition signees (now over 28,000!), over 1000 statements from marine scientists, educators, photographers and community members; and a handwritten letter from Sir David Attenborough himself.

They called for a halt on fishing Spider Crabs during their peak aggregation months of March to July, until we know more about their population numbers and the impact fishing has on this valuable tourist attraction. We hope the VFA will see the huge value these Spider Crabs bring, and what is at risk.

If you would like to know more about these special crabs and the campaign, find Spider Crab Alliance on Facebook, and sign the petition located on their page, or contact Shannon at the Victorian National Parks Association: shannon@vnpa.org.au.



Whale spine fossil

This slab of rock, found in the Beaumaris Sandstone at Beaumaris, contains four whale vertebrae. Almost six million years ago, this small whale, probably much the same size as a large dolphin, was swimming in Balcombe Bay.

For some unknown reason it died. Its body then sank to the seafloor, where it was covered in sediment before scavengers had an opportunity to tear the carcass apart, which is why these bones remain preserved in life position. What looks like a series of alternating vertebra and vertebral discs is actually part of a vertebral column of a young whale.

Each vertebra in this example is made up of a larger primary vertebral body (about 50 mm long), with a thinner, ossified epiphysis at each end (each about 9 mm thick). If the whale had lived to become an adult, these three portions would have joined together, generally obscuring the suture between the components.



Photo by John Buckeridge

Upcoming activities

Due to current restrictions on gatherings, some of our upcoming events have been postponed. We are still active in promoting connection with marine and coastal environments, and invite you to participate in those activities that can be maintained during this time of social distancing.

Cabin Fever interviews
(on our [you tube channel](#))

Nature lover's journal
(in production)

August 15-23: National Science Week events (online webinar)

For details on our events and activities please visit mesac.org.au/events/ or check our facebook page for announcements.

Rare gathering of sea birds at Rickets Point



Photo by Ray Lewis

For those who got out in the very bad weather on Sunday the 5th April, there was a rare sight locally. This was due it seems, to a rare combination of high seas, strong westerly winds, very high tide, and no humans about, (due to the virus).

Those few of us who were out and about near the foreshore, were treated to the splendid view of so

many sea birds of various species, including Swans, Pelicans, little Pied and Black Cormorants, Seagulls, Pacific Gulls, and at least 150 Crested Terns, all crowded very close to one another.

As the urbanised environment becomes sparse of humans, our wildlife is reappearing more boldly in the suburbs.



From the Editors

Welcome to our second issue of the MESAC Marine and Coastal Connections. We aim to focus on citizen science matters of local, national and international interest.

We hope you enjoy this issue. Suggestions, comments and article proposals are most welcome. Email us at: ray@lewisfamily.com.au or tonihatchling@gmail.com

MESAC website: mesac.org.au

About the editorial team

Dr Toni Roberts is a local snorkeler and marine enthusiast, and is the new layout designer.

Raymond Lewis OAM, is a Bayside marine author, film maker, and environmentalist.

Virginia Mosk MSc is a marine scientist and the Education Officer of MESAC.

Summer by the Sea

Maddy Heath, a local Bayside school teacher, trialled an inaugural 'seaweeds and seashells' beachside walk, supporting Coastcare's Summer by the Sea programme.

It was a great success and an ideal alternative as well for times when seas are too rough for intertidal reef excursions.



Photo by Ray Lewis

About MESAC

MESAC conducts a range of marine-oriented events including marine science presentations, guided walks, photography courses, school activities, publications, videos, and marine art events.



A long-term goal of MESAC is to create a world-class venue in Bayside with facilities for marine science, citizen science, school activities, a centre for disabled diving and a home for local marine environmental groups. The centre would benefit a wide range of interest groups and promote understanding and appreciation of the marine environment.

Useful links

Australian Institute of Marine Science aims.gov.au

Parks Victoria parkweb.vic.gov.au

Beaumaris Yacht Club revolutionise.com.au/beaumarisyc

Bayside Earth Sciences Society beaumarisfossils.org

Bayside Climate Change Action Group bccag.org.au

Bayside Environmental Friends Network (via facebook)

Bayside Friends of Native Wildlife bayfonw.org.au

Bunurong Land Council bunuronglc.org

Coast Care Victoria coastsandmarine.vic.gov.au

Disabled Divers Association (via facebook)

Gould League gould.org.au

Institute for Marine and Antarctic Studies imas.utas.edu.au

Jawbone Marine Sanctuary Care Group jawbone.org.au

Marine Mammal Foundation marinemammal.org.au

Ocean Watch Australia oceanwatch.org.au

Marine Friends Network of Victoria (via facebook)

Port Phillip EcoCentre St Kilda ecocentre.com

Sandringham Foreshore Association sandyforeshore.net.au

Marine Care Ricketts Point marinecare.org.au

The Nature Conservancy Australia natureaustralia.org.au/our-work/oceans

Victorian National Parks Association vnpa.org.au

WA Oceans Institute oceans.uwa.edu.au

WAMSI wamsi.org.au

