MARINE & COASTAL CONNECTIONS



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Inklings: aquatic imaginary

Local artist, academic and marine enthusiast Dr Toni Roberts has a series of sculptural and photographic works that explore the relationship between humans and water, with an evolutionary lens. Recently featured in the Bayside Gallery Local exhibition, four of Toni's works were set into the back-lit exterior windows of the gallery. "As we face major changes to the natural environment including rising sea levels, what kinds of adaptations will humans make?" - Dr Toni Roberts Feature article, page 3.

What have you been noticing this Waring season?

According to the Bunjilaka Aboriginal Heritage centre the Kulin nation have a detailed local understanding of the seasons and the environment. Each season is marked by the movement of the stars in the night sky and changes in the weather, coinciding with the life cycles of plants and animals.

As we come to the end of the Waring season – what have you been noticing around you?

What changes have you seen in nature?

See the redness of the sky Feel the cool damp mist in the air Watch the migrating birds fly by Sense the plants thriving after the rain Lyrebirds are dancing, Possums are mating Understand Waring is here As Solstice approaches

MESAC acknowledges the Boon Wurrung and Bunurong people of the Kulin Nation as the Traditional Custodians of the land and waters around Rickett's 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 special place.

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



Expansion of mussel aquaculture in Port Phillip Bay



Port Phillip Bay contains a wide range of marine habitats. A hundred years ago it was also home to extensive oyster and mussel reefs that supported a huge range of other sea life including fish, crabs, sea squirts, snails and sponges. Sadly, after many years of over exploitation, pollution, introduced species and disease, these shellfish reefs disappeared.

In December 2020 scuba divers started to spread 3.5 million young blue mussels and Australian flat oysters on reconstructed reefs at Geelong, Hobsons Bay and Dromana in Port Phillip Bay.

This seeding exercise is the final stage of rebuilding shellfish reefs for the benefit of the environment and local economy. The Nature Conservancy is leading the Port Phillip Bay Shellfish Reef Restoration project to rebuild the near-extinct ecosystems

Shellfish used in the project include several tonnes of native blue mussels that have been grown by an aquaculture farmer at Clifton Springs and millions of oysters grown on recycled shells at the Victorian Shellfish Hatchery in Queenscliff.

"These reefs will attract other marine species straight away and will take seven to 10 years to fully mature," Simon said. "Over that period, The Nature Conservancy and our community partners will monitor the reefs to see how the shellfish populations grow and what other marine species are attracted to the reefs."

Victoria's mussel growing industry in Port Phillip and Western Port is set to expand following the allocation of 65 hectares of water to six operators.

On 09 March 2021, Minister for Agriculture Jaala Pulford said the recent public tender process, managed by the Victorian Fisheries Authority, saw significant interest from local mussel growers keen to take on more sites to expand production.

Victoria's annual production of mussels is more than 1,000 tonnes, is worth over \$3 million and is on the rise thanks to increasing exports to Asia and America, which supporting jobs in regional Victoria.

Port Phillip and Western Port are the home of shellfish aquaculture in Victorian. The industry has been established for over 30 years and has a proven track record of growing premium quality seafood. Twelve of the 13 sites allocated, all in existing aquaculture reserves, were taken up by current licence holders already growing mussels. The 12 sites, once up and running and at full capacity in two to three years, could produce a further 210 tonnes of mussels every year.





Inklings: aquatic imaginary

By Dr Toni Roberts

Toni Roberts is an artist, designer, academic and avid snorkeler. Toni's work focuses on how art and speculative design can provoke connection, care, and critical thinking about environmental issues, with a focus on water and the body; our bodies of water.

Toni's art practice explores the properties of liquid and malleable materials such as clay and cast polymers to

elucidate the complex relationship between people and water. Inspired by deep connections with watery places, Toni Roberts seeks to rekindle human connection with our aquatic origins and provoke speculation about our place in potential watery futures resulting from a changing climate.





Evolutionary adaptations have brought humans from single celled amoeba to land dwelling reptiles to mammalian primate form. This creative work speculates about future evolutionary adaptations by drawing on our aquatic past. Whales evolved from sea to land and back again. What if we were to do the same?

I hope these images provoke sensory and imaginative understandings of our profound relationship with water: our aquatic origins, our dependence on water, our watery bodies, and potential aquatic futures. Inklings is an iterative project of making, performing, recording and re-making. With its beginnings on the south coast of NSW, Inklings now inhabits the waters of Bayside, on BoonWurrung Country. The project explores what it means to be in and of water. I invite people to 'unforget' our abandonment of water as we evolved from the sea to live on land. As sea levels rise, we may once again find sanctuary in the ocean.

Through these works I propose a reconstitution/ restoration/reimagining, an unforgetting/piecing (back) together/forward of the human body, its aquatic origins and its potential watery future. Inklings is at once playful, dystopian, hopeful, educational and personal. It is both an evolutionary home-coming and a speculative provocation about future human/water relations.

Inspiring reading

Carl Zimmer's At The Water's Edge: Fish With Fingers, Whales With Legs, And How Life Came Ashore But Then Went Back To The Sea



St Kilda Pier Redevelopment

Work is underway to rebuild the iconic St Kilda Pier

Parks Victoria in partnership with the Department of Transport is delivering an exciting rebuild of the iconic St Kilda Pier.

Once complete, the new pier design chosen by the community, will provide improved recreational space for more people to enjoy. It will feature public access for the community and visitors out onto the bay, improved views of St Kilda and the city skyline, better protection and viewing area for the Little Penguins, a wider disability compliant walkway, new toilets, tiered seating and preservation of the precinct's heritage features. The pier will be constructed from concrete and timber and extend about 450 metres with a 50-year design life.



Latest news

1 May 2021 - Revitalisation plans for the iconic St Kilda Pier build momentum

Today, the highly anticipated St Kilda Pier redevelopment is a step closer with the release of construction ready detailed designs. The Victorian Government's \$50 million commitment to the St Kilda Pier rebuild is the biggest construction project for any pier asset in Victoria's history breathing new life into the iconic bayside destination.

A robust consultation and planning design process over the last three years has arrived at a stunning curved structure providing improved access and facilities for commercial and recreational users, greater protection for the Little Penguin colony and sustained economic benefits for Victoria. Schematic designs released in December 2020 have undergone further consultation and refinement to ensure the design achieves optimum constructability, functionality and longevity.

The detailed design includes resolution of the structural and architectural elements, provides safe access and use by pedestrians, vehicles and vessels, and facilities to complement the visitor experience. This includes new public toilets, shelter, seating and back of house kiosk facilities. Details include use of timber for the penguin viewing platform to provide a more natural feel and space for seating; inclusion of a beach access ramp to allow access for visitors and council's beach cleaning tractor; a variety of seating options; and energy efficient lighting for safe public access in the evenings while minimising environmental and aesthetic impacts.





Urchin Corals installation features in the NGV Triennial.

LEARN MORE HERE >



The 'Urchin Corals' installation brings to the surface two ecological problems in the ocean – in Port Phillip Bay in Victoria and the Great Barrier Reef in Queensland.

In Port Phillip Bay in Victoria and many other places in the world, due to anthropogenic reasons including climate change, sea urchins are exploding in numbers. They eat their way through the seaweed habitats until only an underwater desert remains. In many parts of the Port Phillip Bay this has already happened. At the Great Barrier Reef a more known disaster is unfolding. The increasingly frequent high temperatures are leading to coral bleaching and eventually to the death of corals.

Combining her skills as a designer, researcher and SCUBA diving instructor, Dr Pirjo Haikola has focused her practice on developing a commercial use for sea urchins to reduce the threat to kelp forests and other marine life.

In Urchin Corals 2020, she has developed a landscape of 3D-printed corals from a new material manufactured from the shells and spikes of the Purple sea urchin (Heliocidaris erythrogramma) and



NGV Triennial 2020 installation view of Pirjo Haikola Urchin Corals 2020, Commissioned by the National Gallery of Victoria, Melbourne. © Pirjo Haikola. Photo: Sean Fennessy

the Black sea urchin (Centrostephanus rodgersii) blend with biopolymers.

The sea urchin material presented in Haikola's Triennial installation is part of ongoing investigation into the beneficial properties of sea urchin shells and has led to a collaboration on material development and testing for coral reef restoration purposes.



Share The Love Weekend hosted by Parks Victoria



On the weekend of Friday 30th April – Sunday 2nd May 2021, MESAC representatives attended the 5th Sharing the Love Conference hosted by Parks Victoria in Anglesea.

The weekend was co-hosted by volunteer forum convener Neil Tucker from Friends of Point Addis Marine Sanctuary. After a long time and several false starts throughout 2020, it was finally able to be held with more than fifty participants from various marine-focused volunteer community groups across Victoria; from Melbourne metro and right across the surf coast area.

Staff from Parks Victoria, Coastcare Victoria, Reefwatch Victoria and Victorian National Parks Association attended too and we had a great weekend at Anglesea Scout Camp!

A wonderful 'Welcome to Country and Forum Opening' was conducted by Corinna Eccles, Wadawurrung Traditional Owners Aboriginal Corporation.

MESAC had the opportunity to present and to tell our group's story Petcha kutcha style, although many of the attendees already knew us!





The following day we were able to choose various "Marine Vignettes: Sharing Skills and Knowledge" where we split up and learnt about the fascinating subjects below:

- » Yoga for divers and snorkellers Julie Everett, Snorkelling Melbourne
- » Marine pest incursions and marine care groups where to from here? - Andrew Christie, Marine Care Point Cooke
- How to design engaging environmental resources on a not-for-profit budget
 Naomi Wells, Bellarine Catchment Network
- » Marine Campaigning 101 Shannon Hurley, VNPA
- » Pics with a Purpose Marine Life of Victoria Kade Mills and Nicole Mertens, Reefwatch Victoria
- » Image atlas
- Grassroots Plastic Recycling James Murphy, Southern Ocean Environment Link







For dinner we had Guest Speaker: Shannon Hurley, Marine Campaigner talking about her favourite topic! "What sharks and the oceans can teach us about life, love, and lemons!" Shannon was one of MESAC's guest speakers for National Science Week in 2020.

We ended the weekend at Point Addis Marine Sanctuary (which was pure bliss after such long lockdowns in Melbourne last year!) where we got to test out new sampling/monitoring techniques used by Parks Victoria. Staff and volunteers were inspired by like-minded organisations at this conference and our take aways were ideas to better engage with culturally and linguistically diverse communities, as well as encouraging and adopting available technology and software to become more sustainable and efficient into the future!





Inspirational Reading

"A bay is a noun only if water is dead. When bay is a noun, it is defined by humans, trapped between its shores and contained by the word. But the verb wiikwegamaa-to be a bay-releases the water from bondage and lets it live. "To be a bay" holds the wonder that, for this moment, the living water has decided to shelter itself between these shores, conversing with cedar roots and a flock of baby mergansers. Because it could do otherwise-become a stream or an ocean or a waterfall, and there are verbs for that, too. To be a hill, to be a sandy beach, to be a Saturday, all are possible verbs in a world where everything is alive. Water, land, and even a day, the language a mirror for seeing the animacy of the world, the life that pulses through all things, through pines and nuthatches and mushrooms. This is the language I hear in the woods; this is the language that lets us speak of what wells up all around us.

This is the grammar of animacy."



Annual Fossil Expo

Bayside Earth Sciences Society Inc (BESS) will hold its annual FOSSIL EXPO on Sunday 22nd August 2021 (providing COVID allows).

The EXPO will be held at the Beaumaris Motor Yacht Squadron between 10 am and 2 pm. New finds will be on display including bones and a full-scale artists model of Pelagornis. Pelagornis is a prehistoric bird with the largest known wing span of up to 6 metres. This bird also had teeth and survived around the world until approximately 5-6 million years ago making Beaumaris part of its habitat. There will also be talks by well-known Paleontologist Ben Francischelli and Ella Vegh who has contributed a number of important finds new to science, to Museums Victoria. Bookings will open in July and will be limited in line with COVID protocols.









Coastal Connections

Uncertainties and truths in science:

How often can we misinterpret the geological record?

By Professor John Buckeridge

I have just finished editing a palaeontological description of some new species of fossil polychaetes from the west coast of the United States. One description was based upon a very small number of specimens.

When describing a new species (living or fossil), scientists are expected to provide a "distribution" of the species. A distribution is generally both spatial (geographic) and temporal (in the fossil record). Scientists do this in anticipation that the distribution may be expanded following future field work and observation.

Even when there are just a few specimens known, perhaps even just one (and this may be incomplete) a distribution is provided.

My question then, is this:

Is it good science to base a distribution of a species on a very small number of specimens? If a specimen is found at a site, or in a specific rock layer, can we always be certain that it lived and bred there (or in the case of fossils, when the rock was deposited)?

Let me know what you think. Answers will be considered, and a response provided in the next issue to this magazine.



MESAC Winter Solstice Foreshore Ramble & Nature Photographer's Walk

McGregor's Rock, Black Rock to the Ricketts Point Tea House Similary 20 June 2021 – departs at 10am sharp

central Avenue, Black Rock (and surrounds) and carefully walk across Beach Rd.

10 and Assemble at McGregor's Rock for Ray Lewis' talk on Sea Country & Megafauna then following, walk with Professor John Buckeridge at the open cliffs; discussing coastal geology, geomorphology and palaeorcology (providing an insight into what it was like in our coastal waters from 6 million years ago to the present).

11 – 11.30 am return to Ricketts Point Tea House for hot coffee, tea, chocolate, soup, a warm fire & congenial company

This is a free event offered by expert volunteers but please reserve your place at: https://www.trybooking.com/BRMSY

This will be a Zen walk, living completely in the present moment – mobile phones turned off or on silent; friendly, calm dogs welcome; ideal for photographers to capture local foreshore life. Any queries, please email: <u>MESACoffice@gmail.com</u>





From the Editors

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Welcome to issue four of MESAC Marine and Coastal Connections newsletter. This issue is compiled by Claire Bowles.

Listen to Dr Anne Poelina talking about the project here:

<u>#084 Regenerative Songlines — The RegenNarration</u>



Image 24 May 2021 #084 Regenerative Songlines © The Regen Narration

Volunteers Wanted

MESAC are looking for Volunteers to take up the Secretary, Grant Writing and Website Administrator roles and for them to contact: MESACoffice@gmail.com

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.

About the editorial team

Dr Toni Roberts is an designer, local snorkeler and marine enthusiast.

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

Virginia Mosk MSc is a passionate marine scientist, educator and community collaborator.

Claire Bowles MSc is a passionate regenerative practitioner and keen regenerative design advocate.

Dan Coman MDes is a designer with a passion for branded environments and connection to place.

Useful links

Australian Institute of Marine Science aims.gov.au

Parks Victoria parkweb.vic.gov.au

Beaumaris Yacht Club<u>revolutionise.com.au/beaumarisyc</u>

Bayside Earth Sciences Society beaumarisfossils.org

Bayside Climate Change Action Group <u>bccag.org.au</u>

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 <u>natureaustralia.org.au/</u> <u>our-work/oceans</u>

Victorian National Parks Association <u>vnpa.org.au</u>

WA Oceans Institute oceans.uwa.edu.au

WAMSI <u>wamsi.org.au</u>

