



The Creek

Volume 25 No 1, February 2021

Caring for our local environment

SHARING A BUNURONG PERSPECTIVE

Suzanne Ryan reports

Part of our commitment under our *Port Phillip Bay Fund Round 3 grant* was to engage with representatives of the Bunurong Land Council Aboriginal Corporation to enlarge our understanding of the Bunurong cultural heritage that is an integral part of our reserves and coastline.

It was an inspiring morning. On 9th December, eleven BERGers met with Uncle Shane Clarke and

more intangible. A strong sense of the intrinsic connection of the Traditional Owners to ‘country’. A strong sense of our own responsibility to the land – to ‘country’. And the sense that this is now a responsibility that we all share; we are partners with the Bunurong in caring for our land.

Indeed, in welcoming us to country, Uncle Shane spoke of us all as ‘elders’, people who have wisdom and understanding to be valued, used

The BERG Mt Martha Coastal Group will follow up this meeting by mapping the locations of areas we work in, and the type of work, together with possible midden sites exposed by erosion.

Much of Victoria’s coastline is included within Native Title and Traditional Owner settlement agreements, and some of it is jointly managed by Traditional Owners and government agencies. The entire coastline is subject to the Aboriginal



Left: Uncle Shane Clarke & Meg Haas, of the Bunurong Land Council

Right: Meg, the archaeologist, shows BERGers an eroded midden area along North Beach

Below: Uncle Shane and Meg showed some stone tools, talking about how they were made and used.

Photos Liz Barraclough



archaeologist Meg Hass, to meander through Mt Martha bushland and foreshore. There is clear physical evidence of Bunurong culture in middens exposed by erosion along North Beach. But the most significant gains for all of us were

and passed down, mentoring younger generations in our shared responsibility for the land.

BERG Mt Martha seeks advice and support from Bunurong Land Council when developing coastal grant application projects. This meeting breathed life into that process, cementing in place our partnership and engagement with the Bunurong in caring for our country.

Heritage Act through which Registered Aboriginal Parties provide heritage management services.

Comments from participants

A wonderful morning...Such an important relationship for BERG to maintain. I certainly came away with a greater sense of our real history and responsibility to our land and my own place in my family as an ‘elder’.

...wonderful to connect with Uncle Shane and Meg and a privilege to benefit from their wisdom. I am promoting the Bunurong practice of walking single file in the bush!



RESTORING SEAGRASS MEADOWS

By Angela Kirsner

Sediment has smothered the seagrass that once thrived in Balcombe Estuary. But if we can halt or vastly reduce the ongoing sedimentation, there are some inspiring examples of seagrass restoration to call on. This article describes two that have come my way recently.

Virginia, USA

An article in *Science News* (4th October 2020) describes what claims to be the world's largest seagrass restoration project (see www.sciencenews.org/article/seagrass-restoration-project-virginia-ecosystem-rapid-recovery).

Over 20 plus years, more than 70 million Eelgrass seeds have been spread on plots covering over 200 hectares, just beyond the salt marsh off south Virginia's eastern shore. The seagrass in these inshore lagoons had been wiped out by disease and a hurricane in the 1930s, but the water was still clear enough to transmit sunlight.

Within the project's first 10 years the ecosystem rebounded rapidly across almost every indicator of ecosystem health: seagrass coverage, water quality, carbon and nitrogen storage, and invertebrate and fish biomass, and the re-established eelgrass beds now support rich biodiversity. The seahorse in the photo below, reproduced from the *Science News* article, is just one example of this.



The world's best carbon sink

Seagrass meadows are among Earth's most efficient storers of carbon, ahead of native forests. They have an excellent capacity for taking up carbon in the oxygen-depleted seabed, where it decomposes much

slower than on land, trapping and burying it for hundreds of years.

While seagrasses worldwide occupy only 0.1 per cent of the total ocean floor, they are estimated to be responsible for up to 11 per cent of the carbon buried in the ocean. One hectare of seagrass can capture up to 830 kilograms of carbon each year and it absorbs carbon 35 times faster than a rainforest. Each day one square metre of seagrass generates 10 litres of oxygen.

These Virginia beds are now sequestering some 3,000 metric tons of carbon per year that would otherwise contribute to global warming and pollution.

With such success, the project, led by the Virginia Institute of Marine Science and The Nature Conservancy, is now working over a massive 3,612 hectares.

'In my first years here,' writes one scientist, 'there was no seagrass and there hadn't been for decades. Today, as far as I can swim, I see lush meadows, rays, the occasional seahorse.'

Corner Inlet

Much closer to home, Corner Inlet in South Gippsland is the site of another major seagrass restoration project. Over recent years the Inlet's Broadleaf Seagrass meadows have been devoured by a vast influx of Purple Sea Urchin, which (while a native species) have destroyed feeding and shelter for fish in this important fishing ground.

The Yarram Yarram's Landcare Network is working with the Corner Inlet fishing community and scientists on a project to harvest and replant areas of the seagrass meadows.

The aim is to replenish 200 hectares of seagrass and so recover habitat, and improve water quality and clarity, biodiversity, natural amenity, sediment stability, and biological productivity; essentially, to return the area to optimum health with a thriving population of native fish and other marine animals. It is believed that about 40 times more animals inhabit seagrass than adjacent bare sand.

Quite apart from their importance as a carbon sink, the seagrass meadows also slow the flow of incoming water by trapping sand and nutrients in their root systems and this can minimise the damage caused by flooding or runoff.

A further aim of the project has been to develop a cost-effective methodology for replanting Broadleaf Seagrass that can be applied to other fisheries in southern Australia.

The restoration has been happening at eight sites on Corner Inlet. Fishermen collect the fruit pods from seagrass during January, to be 'grown' in saltwater aquaculture tanks at Port Welshpool.

The pods shed small seeds into the bottom of the tank, and the freshly germinated seeds or propagules are then broadcast over sand-filled hessian 'snakes' some 2.5m long and weighing around 20kg (think giant draft-stopper), which are then 'sown' at low tide in areas of the inlet. The 'snakes' provide areas of slack water to shelter the seedlings from disruptive tidal motion.

The project has found this method to be more effective than directly planting more advanced seedlings in the sandbags, and over time, the need for sandbag snakes is expected to diminish as the meadows become more self-sufficient. And because it is far easier to hand-scatter thousands of propagules than to plant individual seedlings, the method offers the ability to service a far greater restoration area



Sandbag 'snakes' loaded onto a barge, to be used in the Corner Inlet project. Source: ABC Gippsland: Peter Somerville www.abc.net.au/news/2019-11-01/fighting-urchin-induced-seagrass-devastation/11658504

ESTUARYWATCH

Bruce Ferres reports

At last we are able to collect data again! With easing of COVID restrictions, December was our first EstuaryWatch for 10 months.

Note: The EstuaryWatch and Waterwatch day has changed to the **first Sunday** of each month.

The estuary mouth was open for most of December and January, although a wide, low berm held over the Christmas-New Year period. Its unusual shape was perhaps influenced by the stockpile of sand (some 3,000 cubic metres we understand) that was left near the entrance when sand shifting operations were abandoned. Strong winds and heavy rain have seen the mouth open again a couple of times, in early January and early February, but over much of December-January, it seems that estuary basin been filling and emptying only at high tide, and with the assistance of south westerly winds.



Estuary Mouth, Saturday 7 February 2021, water washing over the berm at high tide

Estuarine water quality

After a few teething issues, our new Pro 2030 multimeter has increased both the speed and accuracy of our testing. It has confirmed that the estuarine waters are in relatively good health.

Water temperature in the estuary averaged about 25°C in our January readings, normal for the time of year. By the 7th February, it had cooled to an average 19°C, undoubtedly influenced by recent heavy falls of rain. In the upper reaches of the estuary the top layer of water was fresh, although laden with fine sediments, with the salt wedge not noticeable until a depth of 1 metre – also a reflection of recent and

moderate to heavy rainfall in the catchment.

All other parameters – dissolved oxygen, acidity, salinity, turbidity – have remained consistent with previous summers.

Continuous monitoring?

Currently EstuaryWatch monitoring happens once a month – but so much can happen in between times. A real-time monitoring 24/7 station in Balcombe Estuary would provide us with a much clearer picture of fluctuations in the estuarine environment with weather and other influences.

We are currently preparing an application to the Melbourne Water ‘Liveable Communities, Liveable Communities’ grant program for funding for such a monitoring station. Dr Dave Sharley from Bio2Lab is preparing a quote to install and maintain (for 3 years) a 24-hour real-time water monitoring station that would stream data to a dashboard downloaded to several devices. The station would continuously record temperature, dissolved oxygen, pH, turbidity, electro-conductivity and ammonia.

We are keen to build a partnership in this grant application and project between BERG MM, SE Water, the Shire and Bio2Lab.

Measuring sediment

Measuring the rate of sedimentation requires a different method. In our recent submission to the draft Mornington Peninsula Shire Long Term Sedimentation Plan, we recommended installation of sediment measuring pins.

SHORT-FINNED EEL STUDY

Bruce Ferres reports

The BERG Mt Martha EstuaryWatch Team has been asked to assist in a new study of Short-Finned Eels.

Scientists from Arthur Rylah Institute have been engaged by Melbourne Water to study the life cycle of these eels, with a focus on their responses to waterway flows. The study involves capturing adult eels on their downstream migration and attaching satellite transmitters. The eels will then be remotely tracked to their breeding grounds, expected to be around the Coral Sea, where they will spawn before they are presumed to die. Eels are thought to migrate largely during periods of decreased illumination (at new moon) in autumn, so the plan is to capture and tag approximately six adult eels during 9th to 19th March. Though we won’t know how many (if any) eels will be captured from our Estuary until the fieldwork is completed.

Before then, we need to monitor the status of the estuary. The researchers are looking for help in checking the estuary mouth with photo monitoring for some 10 days in the lead-up to the proposed monitoring dates, and potentially a few additional days. This will involve emailing a photograph and commentary on the status of the estuary (including any observations of fish) to Wayne Koster, at the Arthur Rylah Institute.

Below: Mature Short-finned Eels – known at this life stage as ‘Silver Eels’ – migrating towards the sea across a sand bar. Photo Kim Birnie-Gavin



THANKS TO OUR BUSINESS PARTNERS

FEATURING PROSCAPE LANDSCAPING

- **Mt Martha-based family firm** founded by Graeme Alcorn over 30 years ago.
- **Builders of original Balcombe boardwalk!** – a large section near Seppelt Ave in the 1990s, plus boardwalk above Schnapper Point, Mornington.
- Courtyards, landscapes, cliff-top or heritage gardens, & more.
- From Melbourne to South Gippsland, & right across the Mornington Peninsula.
- Love to visit old clients to look over, refashion or refresh gardens built for them.

Creators of beautiful & well-constructed outdoor spaces,



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- Sea Side Shacks
- Terry Bateman Pharmacy
- Volpino
- Warlimont & Nutt Pty Ltd

FEATURING MT MARTHA CHIROPRACTIC & SPORTS INJURY CLINIC

Have you recently had
♦headaches?
♦jaw pain?
♦facial pain?
It's not uncommon with mask wearing.



Chiropractor Rachel behind a mask & smiling.

SOME TIPS AND TRICKS

- **Relax** your mouth, with your tongue resting on roof of the mouth.
 - **Don't purse** your lips or use your chin to move your mask.
- **Breathe through your nose** so you don't overload jaw muscles.
 - **Give 'ear savers'** a go.
- **Smile** behind the mask! It relaxes face muscles & stimulates positive endorphins.

We are experienced in working with jaw issues.

Call 5974 3477

www.mtmarthachiropractic.com/

2/15 Bay Rd, Mt Martha

CAN YOU HELP?

**Clean Up
Australia Day
SUNDAY 7TH MARCH**

Join with BERG Mt Martha, the Yacht Club, the Life Saving Club & others to clean up beach, creek & surrounds. Register & pick up a rubbish bag outside the IGA, anytime 9.30 to 1.00.



**Enquiries
Liz Barraclough 0408 388 430**

**Lots of rubbish this year
so lots of hands needed!**

VALE PETER DEDRICK 22 JAN 1951- 6 DEC 2020

Peter and Fran Dedrick moved to Mt Martha from Melbourne only at the start of 2017, but they rapidly became very active BERGers. A lawyer by profession, Peter had been much involved from 2000 onwards with Marine Care Ricketts Point, the volunteer group caring for the Ricketts Point Marine Sanctuary.

At Mt Martha, Peter rapidly initiated the Baykeeper Beach Litter Audit on South Beach. Under Baykeeper Neil Blake, this program involves a monthly audit (and, inevitably, collection) of microplastics and small litter along the beach, quadrat by quadrat, following the procedure used by other groups around the Bay, to provide a picture of rubbish entering Port Phillip Bay and where it ends up.

Peter has also been a stalwart of the BERG Mt Martha Friday morning group – hard-working, reliable, willing and cheerful. He is much missed.

Our thoughts are with Fran.



FIELD NEWS

IN THE BUSHLAND

Liz Barraclough reports

The Friday group had its final bushland activity and Christmas break-up on December 18th, coinciding with the birthday of Tamara Keyte, our invaluable Naturelinks coordinator who also runs BERG Mt Martha's Facebook page.



Tamara's birthday at the Friday Group Christmas celebration Photo Liz Barraclough

Friday group turn-outs have been great through 2020, despite and within COVID limitations. My thanks to this group for all their support, loyalty, time and hard work.

We wait in hope to resume our monthly Sunday bushland activities!

Naturelinks vs the weeds

Rain and warmth have seen the weeds particularly the grasses, flourishing. Naturelinks, however, has been out there confronting and controlling them, working under both BERG Mt Martha grants and the Shire's Bushland Management weeding program:

Below Ferrero Ovals, they tackled Blackberry amongst Bower Spinach and Rhagodia, removed the last of the English Ivy (until more seedlings appear), dug up Bridal Creeper and removed Boneseed.

They sprayed Blackberry in lots of places. On the north bank down from the Geoff Kaye Bridge they removed Winter Cherry and chain-sawed the remains of some self-sown fruit trees. And below Victoria Crescent, it was flatweeds and a stack of smaller woody weeds including Montpellier Broom, Italian Buckthorn and Pittosporum. Now that nesting season is over, it's safe

to tackle these denser shrubs. Around the estuary, they removed woody weeds and scramblers, cut climbing English Ivy off at the knees, and sprayed Crassula and Rambling Dock. They found a new weed that we need to watch out for, *Berkhaya rigida*, African Thistle. And at Hopetoun Creek, they removed Spear Thistle, a Vinca patch, and Forget-me-nots.

Another grant success

We have been notified that we will be receiving a South East Water Community Grant of \$5,500. It's about half what we applied for, and we have yet to find out which part of our application the funding will cover, but it will be do with protecting water quality in some way, either through weeding and planting, and/or workshops and equipment. Watch this space!

Hopetoun Fauna Survey

In this year-long survey, Malcolm Legg has to date found woodland birds, Blue-tongue Lizards and other skinks, Copperhead Snakes and, on spotlight night walks, Sugar Gliders, possums, Tawny Frogmouth, frogs, and more in this narrow riparian reserve.

Gardens for Wildlife

A Blue-banded Bee will be the mascot for the Gardens for Wildlife (G4W) program that the Shire is bringing to the Mornington Peninsula in 2021. The aim is to inspire the community to plant indigenous species in their gardens to support our indigenous wildlife.

It will be a wonderful opportunity for BERG Mt Martha to extend the habitat provided by our reserves into local gardens. The Shire will be releasing more information soon.



OUR FABULOUS PPWCMA CREW

Liz Barraclough & Suzanne Ryan

'Who??' you ask...

The Port Phillip & Westernport Catchment Management Authority's Agricultural & Environmental Work Crews are a 6-month project to help farmers, organisations & community groups to deliver projects & improve their sustainability credentials while providing employment to Victorians. Six crews are working on tasks from tree planting, revegetation & weed control, to bushfire recovery works & Fruit Fly monitoring. The Work Crew project is supported by the Victorian Government.

This brilliantly hard working crew spent three days with us in December, in the bushland at the western end of Citation Oval, and another five days in January in the coastal reserve.

On Citation Hill they decimated the population of Boneseed, Polygala and Pittosporum, and followed up with rubbish collection around the estuary and lower reaches of the creek. Liz spent some hours with them as they tackled our most challenging areas, steep, rough with lots of fallen branches and obstacles

Along the foreshore, they again worked like Trojans despite searing heat, to remove Polygala, Boneseed and Flax-leaf Broom between South Beach car park and the Lempriere Ave path. The Polygala rubbish piles burgeoned as we watched them!

This wonderful weed sweep means that the Coastal Group can start seed bombing and planting this autumn in the areas cleared, at least two years ahead of their planned schedule.



Above left: A daunting pile of Polygala removed by the PPWCMA crew. Right: Polygala on the move in an overloaded trailer! Photos Suzanne Ryan

ALONG THE COAST

Suzanne Ryan reports

The Coastal Group has put in many hours and achieved lots through December and January. In December, in a burst of work, we installed the remaining vegetation buffer panels behind South Beach boatsheds, to meet our already COVID-extended deadline for this project funded by one of our two Port Phillip Bay Fund grants. A huge thank you to the team who pitched in to make it happen.

We've much appreciated the positive feedback from beach box owners and community. As discussed with many of you, our grant funding did not cover enough panels to protect the coastal bushland fully behind the beach boxes. If you'd like to help with a donation to finish the project, see the next page.

Getting back to our regular fortnightly gatherings in January, we have capped star pickets hidden in the sand near the Yacht Club path, installed 'Path' signs to direct people to and from the beach, dug out recalcitrant Madeira Vine tubers, and more.

Ham, Chicken, Pork and Stras

We had magnificent help from the newly formed 'Mini BERGers', who identified themselves as 'Ham', 'Chicken', 'Pork' and 'Stras' (a group of BERG MM offspring and grand-offspring who usually answer to Amelia, Edwin, Louis and James).

This crew – 'Not small, not little, we're Mini BERGers!' – hydro-dipped plant guards in brilliantly coloured designs and installed them along the foreshore. You can see some of them behind the fence opposite the Mt Martha Village.

Below right: A splash of colour – hydro-dipped plant guards by Mini BERGers Edwin & Amelia

Below left: 'Mini BERGers' Ham, Chicken, Pork & Stras (AKA Amelia, Edwin, Louis & James) proudly displaying their installation



Our fabulous PPWCMA crew

Top: An impressive 20 minute warm-up before getting down to business

Centre: Removing damaging BMX bike tracks on Citation Hill

Bottom: Lunch in the Rotunda with BERG Boomerang bags



BERG Mt Martha welcomes new members

Ann Johnson, Despi O'Connor & family, Julia Street & family

YOUR CHANCE TO SUPPORT OUR COASTAL WORK

Grant funding has got us this far. We're aiming for more.

Your donation can help us to

- **Have 100 Banksias thriving** by the end of 2023 above South Beach from Joe Wayne Path to Dowdle Walk, **and**
- **Decimate the woody weeds** in the same area.



This shows Vegetation Quality in 2019.

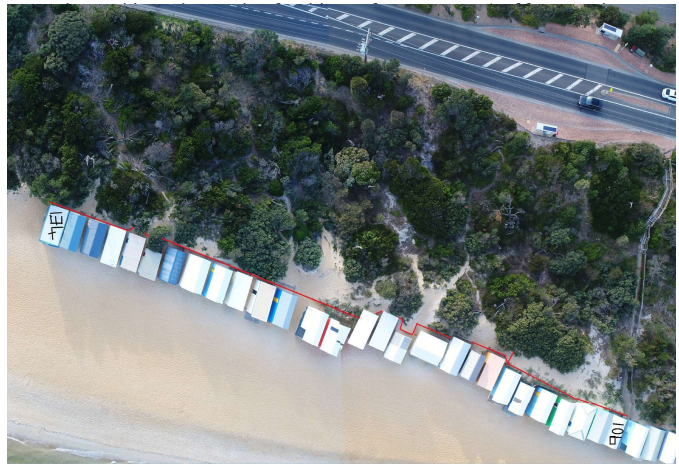
Watch it move, with our work, from **Red (poor)** to **Orange** to **Blue** and towards **Green (high)**!!

VEGETATION BUFFER PANELS

We've recently installed lots of panels that protect the fragile dune vegetation between Esplanade and Beach, from Yacht Club to Village Pathway (Beach Box 106 to 134). They're a barrier to foot traffic, help to halt smothering sand drifts, and allow natural regeneration to bind this essential protective strip of vegetation.

We need more panels to complete the job!

Our target of \$2100 will allow BERG Mt Martha to fill in the missing sections.



Watch the effect of the Panels as the sand drift is gradually covered with vegetation again

HOW TO DONATE

Via the website, www.berg.org.au . Click on DONATE button (top right of screen), which takes you to the secure GIVENOW site. Follow the prompts. Remember to add **B100** (for Banksia100 project) or **VBP21** (for Vegetation Panels Project) in the comment area and complete all information so we can issue you a receipt.

By Deposit/EFT to:
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 Bendigo Bank Mt Martha
 BSB: 633 000
 Account: 159 803 337
 As your bank reference, enter **B100** (Banksia100) for or **VBP21** (Vegetation Panels) plus surname and initial.

By Cheque:
 Payable to BERG Mt Martha Inc.
 Write your name & **B100** (Banksia100) or **VPP21** (Vegetation Panels) on the back. Mail to PO Box 433, Mt Martha 3934. So we can send a receipt, send your name, address & phone number to Julie Zammit at above address or treasurer@berg.org.au

HELP US TO ENRICH & PROTECT THE FORESHORE!




MINISTER VISITS



Our local Federal Member the Hon Greg Hunt visited the reserves on 15th January to see our ‘Dragonfly’ and ‘Yellow Robin’ audio trails in action. The upgrade of these trails, nearly complete (after a COVID-related delay), was funded by the Stronger Communities Programme, a Commonwealth initiative which funds small capital projects that improve local community participation and contribute to vibrant, viable communities.

BERG Mt Martha President Peter McMahon and Field Officer Liz Barraclough demonstrated a trail post from each, followed by a typically excellent BERG Mt Martha morning tea.

Left: Peter McMahon demonstrates a Dragonfly Trail post to Hon Greg Hunt Photo Liz Barraclough

Come along to our Bushland Activities	Other BERG MM Activities	Other Groups
<p>❖ 2nd Sunday of the month: between 9am & noon. Details emailed a few days ahead, or call Liz Barraclough 0408 388 430.</p> <p>❖ Coast Group: fortnightly on Wednesdays, between 9am & noon. Call Suzanne Ryan 0418 387 604 for details. Location emailed a few days ahead.</p> <p>❖ Friday Group: weekly between 9.30am & noon. Call Liz Barraclough 0408 388 430.</p>	<p>❖ Waterwatch & EstuaryWatch testing: monthly, 1st Sunday. WW, meet 9.15am at Augusta St bridge; call Sue Milton 0407 350 175. EW, meet 9.00am at the Rotunda; call Bruce Ferres 0435 389 804.</p> <p>❖ BERG Mt Martha Committee meets monthly at Mt Martha House (or by Zoom), 9.00am, usually the 2nd Saturday, next meetings 13th February, 13th March.</p>	<p>❖ BirdLife Mornington Peninsula bird-watching normally 2nd Wednesday and 3rd Sunday. Enquiries to Max Burrows 9789 0224, mornington@birdlife.org.au or www.birdlife.org.au/locations/birdlife-mornington-peninsula.</p> <p>❖ SPIFFA 1st Monday, 7.30 pm, at Seawinds Community Hub, 11A Allambi Ave, Rosebud West. Enquiries 5988 6529, or www.spiffa.org.</p> <p>❖ Sunshine Reserve working bee 9.30am, last Sunday of month. Call Pia Spreen, 5974 1096</p>
<p>BERG MT MARTHA PATRON: TERRY DENTON</p> <p>COMMITTEE: PRESIDENT PETER MCMAHON • VICE PRESIDENT & ESTUARYWATCH BRUCE FERRES • SECRETARY DIANNE LEWIS • TREASURER & BUSINESS PARTNERS COORDINATOR JULIE ZAMMIT • FIELD OFFICER LIZ BARRACLOUGH • COAST GROUP SUZANNE RYAN • WATERWATCH SUE MILTON • NEWSLETTER ANGELA KIRSNER</p>		
<p>Balcombe Estuary Reserves Group Mt Martha Inc. No. A0034645Y ABN 50 224 628 623 Mail: PO Box 433 Mt Martha 3934 Email: info@berg.org.au Mob: 0447 160 288 Web: www.berg.org.au</p>		

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