

LITTER TRACKERS: REDUCING LITTER BY EDUCATION

Had you been at Augusta Street Bridge on December 12th you'd have seen kids chucking plastic bottles into Balcombe Creek.

No – not litter bugs! It was Mt Martha Primary Grade 4 students taking part in Litter Trackers, a project run by RMIT's Aquatic Environmental Stress research group together with Melbourne Water, and supported by the State Government.

Litter Trackers scientists are working with schools and community groups to launch GPS-tracked bottles into twenty of Melbourne's waterways. Suzanne Ryan and Sue Milton represented BERG MM at the Balcombe bottle launch. The idea is to give participants hands-on insight into where the trash in the streets can travel, and the damage it can do after it enters drains, rivers and Port Phillip Bay. One bottle thrown into the Elwood Canal was found a week later on the Dromana foreshore, 50 kilometres away.



Above: Mt Martha Primary students ready for the bottle launch. Below left: farewelling a bottle down the creek. Photos Sue Milton

Most of the litter on our beaches comes from suburban streets via stormwater drains and creeks. Along the way, as well as reducing water quality, it harms aquatic life through ingestion, choking and accumulation of pollutants.

The ultimate aim, of course, is to reduce littering in the first place by educating participants and encouraging them to find solutions.

You can follow the bottles' journey at www.rmit.edu.au/littertrackers.

VALE DAVID STREET

BERG Mt Martha has lost one of its long-standing stalwarts in David Street, who died on 4th February.

David was always there to 'do stuff' for BERG MM, always enthusiastic, willing and hard-working, always light-hearted about it. He planted, weeded, fixed things, helped with school groups, set up stalls and Christmas parties, and lots more. He'd see something that

needed doing, and do it.

He was our 'graffiti monitor', who walked the reserves regularly and cleaned the never-ending graffiti off signs and seats and anywhere else – a frustrating job he quietly took on for himself.

A key member of the Friday Group, David took over coordinating it in recent times. He made it fun as well as very productive. And he did look forward to morning tea! Said Liz, 'We'll always think of him when we pull out his little folding table and use the bench seat he built in the old quarry' (see photo below).



He kept us entertained with a steady stream of bad jokes, relishing the politically incorrect ones!

'For me,' remembers Liz, 'he was always helpful, supportive and happy to take on that extra bit, and didn't make anything of it'.

David and Bronwyn have both spent much of their lives in Mt Martha, from childhood. It's where they met, where they holidayed, and where they retired, and David was a wonderful source of memories of old Mt Martha.

The couple have also been major financial supporters of BERG MM.

We shall miss him.



ESTUARYWATCH

Bruce Ferres reports

Late Spring and early summer 2019 saw a dynamic and constantly changing estuary, before a typically stable summer phase. By the time of our EstuaryWatch observations on 15th December, steady south westerlies had built a substantial berm which had, by the 19th January observations, held firm against the rising estuary water, further onshore winds and a number of human efforts to breach it.

Behind the massive berm, the estuary waters backed up causing minor flooding, with water lapping just below the rotunda jetty at both the December and January observations.



19th January observations. Above: The sandy berm was over 16 m wide, with the estuary waters remaining perched above the bay waters even at high tide. Below: The estuary water level just below the rotunda jetty Photos Bruce Ferres



December testing showed the estuary water to be almost entirely sea water that had flooded in earlier in the month, with just a thin veneer of freshwater above the salt wedge. So it was not surprising to find that the water to be clear and relatively warm, with all test sites above 20 degrees for the first time in 2019 – higher than the average 19 degrees being recorded for Port Phillip Bay.

Turbidity and pH (acidity) readings in January returned healthy results. Turbidity at all test stations was <10

NTU, an excellent result given that the entrance had remained closed for some weeks, and that warmer, still water sometimes becomes clouded by increased algal decomposition.

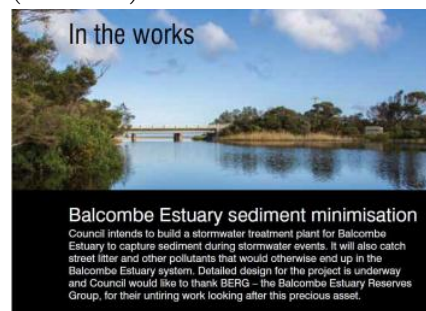
Unfortunately the malfunction of our multi-meter has left us unable to measure dissolved oxygen and salinity for some months. It is currently being serviced by Melbourne Water – a matter of urgency for us, as the quality of our longer-term data sets is being compromised.

ACTION ON SEDIMENT

Bruce Ferres reports

Bit by bit, we are at last achieving wider recognition of and concern about the serious problem of sediment in the estuary. Late last year, an excellent article by BERG MM's Patricia MacLeod in the Mornington News was accompanied by one of George Murley's persuasive drone images, drawing wider community attention to the problem.

This was followed by an item in a recent edition of the Shire's magazine *Peninsula Wide* highlighting the threat posed by gradual sedimentation and acknowledging the leading role BERG MM is playing in seeking practical solutions (see below).



Towards a solution

After discussions with Shire officers late last year, Peter McMahon and I met with them at the estuary on 6th February. Low tide and the open entrance enabled us to see the problem very clearly. A walk out on to the sediment plume of the Henley Ave outfall drain provided devastating evidence of the smothering and suffocating extent of the road grade and gravel sedimentation in the estuary. This in

particular convinced the Officers that irreparable harm will be done unless effective measures are put in place.

We established that the \$150,000 set aside in a previous Shire budget for works to address sedimentation is still available and will be spent this year. Furthermore, the Shire is in discussion with Melbourne Water about the construction and funding of a much better sedimentation trap pit to reduce sediment load at the Henley Ave stormwater outfall. We are hopeful that funding will be approved and the project will go ahead.



Peter McMahon (BERG MM), and Brenda Lee & Harish Kirubakaran (Shire) inspect the sedimentation plume at the Henley Ave stormwater outfall Photo Bruce Ferres



George Murley sent up his drone while we were meeting with the Shire officers, to provide up-to-date images for their report. Above is a screenshot of the Henley Ave plume, taken from the video.

A further measure under consideration is use of the bushland between Henley Avenue and the tennis courts as a vegetated swale to help to trap sediments.

The Shire is working on a longer-term Master Plan that covers drainage issues through all of the Balcombe Estuary reserves and the wider catchment areas, in the hope that that a coherent overall approach will attract the significant funding required and put an end to piecemeal and short-term fixes.

BERM DESTROYED BY THRILL SEEKERS

Bruce Ferres

On Tuesday 21st January a number of teenagers, despite pleas and warnings, dug a channel through the sandy berm to surf the outflow. It just about emptied the estuary overnight. This is a clearly signed offence. It was photographed and reported.



The Creek, on various occasions, has detailed the risk to estuarine health – most recently last June, when again the berm was dug out.

Estuaries should be left to follow their own natural rhythms. When an estuary opens, the oxygen-rich surface layer flows out first, leaving water with very low oxygen levels.

Clearly the estuary opens naturally from time to time. While we have

much to learn about these natural rhythms, the issue, it seems, is the frequency of openings. If too often, the lack of stable environmental conditions can be

harmful. Fish spawn may be flushed out before maturing, or spawning itself may be interrupted.

A range of organisms depend on warmer waters flooding the riparian zone for breeding and feeding. While most estuary wildlife is adapted to frequently changing salinity levels, if there are not significant periods over the warmer months when the mouth remains closed, with minor wetland flooding, the breeding cycles of fish, birds and other organisms are disrupted.

Natural openings and closings are caused by wind, wave patterns, tides, and catchment rainfall. While Spring is typically dynamic, with regular openings and closings, freshwater inputs in summer are lower, the winds more varied, and the estuary may remain closed for months.

We have monthly records of the estuary mouth over at least the last 7 years. It will be interesting to see if these annual patterns are further confirmed by our ongoing EstuaryWatch observations.

Community concern

We're gratified by the community response to this berm breach. The BERG MM Facebook post reached over 8000 people, while Mornington Peninsula News also ran an article. And we are grateful to the Mt Martha Life Saving Club members who dissuaded a number of teenagers with shovels on earlier occasions in December.

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PLANTING FOR FIRE RISK

By Angela Kirsner

The Mornington Peninsula has so far been very fortunate in this catastrophic summer of fires. Nevertheless, gardening thoughts turn to ways to reduce fire risk. Two of our indigenous plants offer good choices.

Seaberry Saltbush

Seaberry Saltbush, *Rhagodia candolleana* is common along our coastline, withstanding salt-laden winds, low soil moisture and shade. It is tough, drought tolerant, pest-resistant and – importantly – it is relatively fire-retardant due to the salt content in the leaves.

In the reserves, you'll find this dense, sprawling shrub mounding to two metres or more, or scrambling through undergrowth.



Seaberry Saltbush:

Top: straggling about in the reserves. Centre: clipped as an elegant naturestrip ground-cover adjacent to the reserves. Lower: the berries and the inconspicuous whitish flower sprays.

Photos Angela Kirsner

In the garden, however, it responds generously to being pruned or clipped into shape, to clothe the ground or a fence, or simply to form an elegant mound of its own.

Its small, glossy, deep green leaves are semi-succulent, and while its whitish flowers are inconspicuous, in mealy pyramid sprays from December to April, they are followed by striking sprays of glossy dark red berries, flattened and dimpled at the top, which native birds love (look out for red bird droppings!).

You can propagate Seaberry Saltbush from cuttings, though I find seedlings often popping up of their own accord in my garden, and they are easily transplanted (or weeded out if you have an over-supply).

It is, of course, one of the Saltbush (Chenopodiaceae) family, which includes many species adapted to harsh, saline environments. Bower Spinach *Tetragonia implexicoma*, also a common local, is also in this family; so are beetroot and spinach.

'*Rhagodia*' comes from the Greek 'rhagos', a berry, and '*candolleana*', from the de Candolle family of Swiss botanists.

Common Boobialla

Mature Boobiallas (*Myoporum insulare*) are generous, spreading, multi-trunked trees up to 6m tall, though they can be kept much lower than this. They have a rough trunk, spear-shaped, fleshy leaves, clusters of attractive small white flowers in Spring, and small purple berry fruit.

Boobiallas are widespread in coastal areas from Shark Bay in WA to north-eastern NSW and Tasmania. Its many other common names include Water Bush, Native Mangrove and Blueberry Tree.

M. insulare is hardy, adaptable and easy to grow in a wide range of environments and soil types, and it is listed as fire retardant. It responds well to pruning (it can be heavily pruned if necessary), is commonly used as a wind break in coastal regions, and is a great screening tree.



Common Boobialla

Top: in flower. Centre: Bushes along the path through the Old Campground. Lower: From beneath, under-planted with *Lomandra*. Below: one of the very large specimens on the path from the bridge to the Village

Photos Angela Kirsner

It can be propagated either from seed or cuttings of firm young growth. Again, I've had a number of healthy seedlings pop up in my garden near the reserves.



'*Myoporum*' is derived from the Greek *myo*, shut, and *poros*, a pore, referring to the glands on the leaf. '*Insulare*' is from the Latin *insula*, island, referring to the habitat where *M. insulare* is found (islands or coastal).

FIELD NEWS

Field Officer Liz Barraclough reports

After a well earned December break, January's **Sunday working bee** took a domestic turn, as we tidied and sorted and thinned out the stuff in our three storage sheds in the Old Campground toilet block. All is now orderly and manageable – you can get into the sheds AND find things!

Meanwhile, on the other side of the toilet block Martin Thraves and Case Varkevisser installed our updated history sign, 'Looking Back in Time' – our thanks to them both, and to Richard Kirsner for constructing the sign's sturdy frame. Check it out – Angela Kirsner has hunted out some wonderful old photos, many on the National Library's Trove website.

The **Friday Group** has been on R&R for January, but at our final working-bee last year, twenty of more of us wrapped up the year in style. An hour or so of weeding the Old Campground followed by a delicious Christmas breakup morning-tea-cum-lunch!

No R&R slackness for the **Coastal Group**! In December, after moving a



The Friday Group's sumptuous Christmas breakup!

heap of mulch around recent plantings, weeding, and collecting rubbish along the way, they finished up with a breakup morning tea on the Yacht Club deck. And it was Tamara's birthday – the group's Naturelinks coordinator as well as the person who runs BERG MM's thriving Facebook page. And they were all back in January to water and weed around plants close to the Life Saving Club and Yacht Club.

Grants

We've received \$5000 from Greg Hunt's 'Stronger Communities Program Round 5', for 'Refurbishment of the audio trails'.

We have also submitted an Expression of Interest for a grant to develop and carry out a longitudinal environmental monitoring program to capture changes to species

diversity and abundance in response to seasonal conditions, particularly for endangered and threatened species. This is a key recommendation of our recent Fauna Survey of the reserves by Malcolm Legg, local fauna ecologist

Flying BERG MM's banner

If you were at the Twilight Market at Mt Martha House on the 3rd Friday of January, you'd have seen the BERG MM stall. We were next to Boomerang Bags, with a focus on litter. We'd planned to be there in December market, at the first of these new markets, but it was cancelled with a 40+ degree forecast. But we'll be back again in February.

Thanks to Angela Kirsner, Di Lewis, Jenny Rolleston, and Deb and Peter McMahon for helping to set up, man and dismantle the display.

Below: The new history poster, at the Old Campground, hung at the January working bee



At January's Sunday working bee: From this (above) to this (below)! The BERG sheds tidied Photos Liz Barraclough



CAN YOU HELP?

Clean Up Australia Day, SUNDAY 1ST MARCH

Join with BERG MM, the Yacht Club, the Life Saving Club & others to clean up beach, creek & surrounds. Register & pick up a rubbish bag at the car park, cnr Esplanade & Watson Road, anytime from 9.30- 1.00. Enquiries to Liz Barraclough: 0408 388 430.

BERG Mt Martha welcomes new members

Robert Whiting & family, Heather MacLachlan & family, Anne Jackson, Marion Orchison, Dianne Bennett & family, Henk van Leeuwenhoek & family

Are you a Marketing Whiz?

Want to help BERG MM?

We have a number of great communication channels - Facebook, newsletter, e-newsletter, website, and more. We're looking for someone to coordinate them all, to maximise their effectiveness in marketing BERG MM to the community - and so to increase our support, our membership, and our effectiveness in looking after our precious reserves.

Is this you?

Contact Peter McMahan, President, BERG Mt Martha, at president@berg.org.au

BERG MM Working Bees	Other BERG MM Activities	Other Groups
<p>❖ Sunday working bee: monthly, normally 2nd Sunday, between 9am & noon. Details emailed a few days ahead, or call Liz Barraclough 0408 388 430.</p> <p>❖ Coast Group: monthly, 3rd Wednesday, between 9am & noon, location emailed a few days ahead or call Suzanne Ryan 0418 387 604.</p> <p>❖ Friday working bee: weekly between 9.30am & noon. Call Liz Barraclough 0408 388 430.</p>	<p>❖ Waterwatch & EstuaryWatch testing: monthly, 3rd 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, 9.00am, usually the 2nd Saturday, next meetings 8th February, 14th March. All members welcome.</p>	<p>❖ BirdLife Mornington Peninsula bird-watching 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 • MARKETING GRAHAM HUBBARD • NEWSLETTER ANGELA KIRSNER</p>		
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THE CREEK

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