

# SPIFFA NEWSLETTER

SOUTHERN PENINSULA INDIGENOUS FLORA AND FAUNA ASSOCIATION INC  
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## GENETIC POLLUTION OF LOCAL KARKALLA

BY GIDJA WALKER

Genetic pollution of local gene pools by introduced species is an insidious process threatening our local plants and therefore potentially the ecological processes that underly local biodiversity. The indigenous Karkalla (*Carpobrotus rossii*) is at risk in many areas along the coastline due to the inappropriate planting of introduced *Carpobrotus* species (commonly called Pigface) and the sale of hybrid *Carpobrotus* as the local Karkalla by nurseries.

Although the African Hottentot Fig (the fruits of which do taste like figs) *Carpobrotus edulis* is easy to distinguish from Karkalla by its Yellow flowers the American Angled Pigface (*Carpobrotus aequilaterus* syn *C. chilensis*) with its magenta flowers is more difficult. Hybridisation makes this identification even more difficult with the potential for hybrid swarms which could grade into one or other of the parents depending on the age and size of the swarm (Hellmut Tolken pers.comm).

The invasion of *C. edulis* into areas supporting the indigenous *C. aequilaterus* in California has resulted in a persistent hybrid swarm so there is a potential for three way hybridization between these two species and the local Karkalla within our coastal ecosystems. Individuals with separate pink, magenta and yellow flowers have been observed at Fairhaven on French Island. These are presumably hybrids between the local Karkalla and the planted *Carpobrotus* on neighbouring properties.

Very little appears to be known about this process with regard to *Carpobrotus* spp. In Australia.

So I'm hoping to initiate a conversation here.

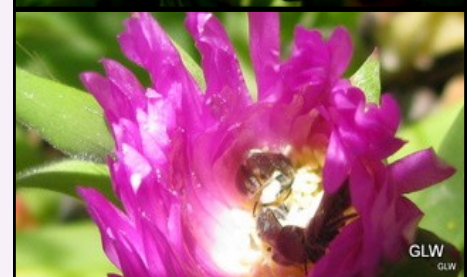
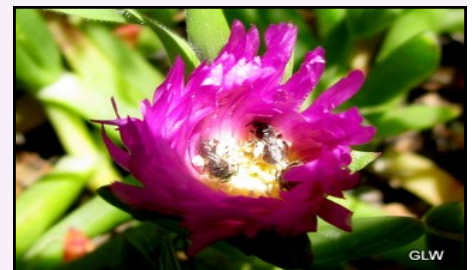
Pollinators are an important key factor. Thrips and Beetles have been observed visiting Californian *Carpobrotus* with Thrips being seen as the main pollinator.

I have observed a variety of small native bees in *Carpobrotus* flowers.

Being able to pick the characteristics of the different *Carpobrotus* species is a start. Yellow flowers indicate *C. edulis*, while *C. rossii* & *C. aequilaterus* both have pink flowers.

Distinguishing between *C. aequilaterus* and *C. rossii* is more involved. The following characteristics are considered useful:

- Internode length– *C. aequilaterus* has longer internodes (the stem length between the leaf nodes) but the internodes of *C. rossii* can elongate in shadier sites.
- Leaf shape - The cross-section of *aequilaterus* is an equilateral triangle whereas *C. rossii* tends to be more rounded with one shorter side. The leaves on *C. rossii* are more likely to hug together whereas the leaves of *C. aequilaterus* are usually strongly divergent.
- The “petals” (staminodes) are white at the base of the *C. rossii* flowers whereas the bases may be paler, but not white in *C. aequilaterus*.
- *C. rossii* under ideal conditions also usually has three terminal flowers, whereas *C. aequilaterus* usually only produces one larger terminal flower.
- Calyx lobes and bracts differ in shape and degree of constriction.



(cont P.2)

Cont from P1:

The most consistent character if fertile material is available:

- The cross-section of the ovary in fruit reveals less than 8 chambers (locules) in *Carpobrotus rossii*, 8-10 in *C. aquilaterus* and 10-12 in *C. edulis*.

Given the risks and the unknowns involved with this species it would be best to avoid planting particularly seed-sourced material.

In terms of weed prioritisation this elevates it from low priority vegetative spreader to a high priority for removal in weed management programmes.

Gidja Walker gidja57@gmail.com.

April 2011

**AMAZING HOW OUR WONDERFUL PLANT-LIFE 'TAKES TURNS' AT PROVIDING FOOD FOR BIRDS AND INSECTS SO THAT THERE'S A CONSTANT SUPPLY-- THE CORREA REFLEXA AND EASTERN SPINEBILLS IN MY GARDEN PROVIDING DELIGHTFUL PROOF RIGHT NOW. ED.**



CORREA REFLEXA  
Photo J Dwyer



EASTERN SPINEBILL  
Brett Donald, Wikipedia

## THE OCEAN AND CARBON SINKS

“TWO OF EARTH'S OCEAN CARBON SINKS SHRINKING STUDIES SHOW”: This heading in the Solve Climate News (solveclimate.com), 22.4.11, is followed by: “New research reveals that mangroves and kelp forests, crucial for carbon storage and cycling, are under threat from development and climate change”. Reporter Katherine Bagley goes on to say that while “large swathes of carbon get recycled through the ecosystem, the kelp forests are believed to store as many as 60 million metric tons of carbon...but Kelp is particularly susceptible to damage from storm waves, which rip the seaweed out of the earth as they tear through. The new research by a California-based team of ecologists, led by Jarrett Byrnes...finds increased storm strength and frequency from human-caused climate change will stop kelp from growing back after wave damage”.

Katherine refers to records which show that over the past sixty years “winter storms have on average been getting stronger and more frequent” and that most climate modeling indicates that this trend will continue. It is feared that kelp will not be able to regenerate quickly enough, with the result that replacement seaweeds, will “shrink diversity, slow carbon turnover and trigger a decline in storage carbon capacity”. Though replacement algae has some absorbent capacity, it is not likely to compare with that of kelp. The researchers are calling for conservation programs.

## MY STORY OF RESTORING THE LAND KNOWN AS MERRICKS ESTATE BY ESTELLE KEFFORD

My family, the Keffords, bought the 50 acre property now known as Merricks Estate in 1978. For many years previous dairy cattle had grazed the area. We continued grazing beef cattle on the property including in East Creek for 20 more years.

In the early years we planted 100s of native trees and shrubs sourced from the local nursery “Farm Trees”. The trees were planted mostly as wind-breaks along the boundaries and between paddocks. Comparing arial photographs from the 1950s to the 1990s actually shows an increase in vegetation!

In 1998 I was just out of secondary school and spent time blockading in the forests of East Gippsland, the Otways and Wombat State Forest. I began to see how important all remnant vegetation was. Despondent with the situation ‘out there’ I felt I could make a positive difference ‘at home’. I sought to better understand my local area’s indigenous plant communities and state of the environment. So restoring the land of Merricks Estate became a real goal. I was determined to fence off any remnant vegetation and corridors linking up areas. Using the principal of starting close to home I undertook less ambitious restoration and re-vegetation projects for the first few years. By 2000 my family’s confidence in the concept and my experience was greater and I decided to really get down to the important work and commence restoring East Creek.

So in the year 2000 we fenced off the section of East Creek that runs through the property with assistance from a Melbourne Water Stream Frontage Grant.

The area of East Creek is a low-lying Swamp Paperbark (*Melaleuca ericifolia*) scrub. Included in the protected area is a remnant patch of Stringy-Bark (*Eucalyptus obliqua*) Open Forest, alongside the Riparian scrub. The area varies from species rich and few weeds, to single species over-storey and pasture weeds groundcover. A track was initially put in to allow work and walk access. Some sections are a raised boardwalk over the creek.

Works over five years have included brushcut/spraying blackberry, Veldt Grasses \**Ehrharta* sp., Cleavers \**Galium aparine*, Ragwort \**Senecio jacobaea*, removal of woody weeds such as *Pittosporum undulatum*, \**Pinus radiata*. Works have been assisted at times by Bush Regeneration Contractors.

Over 1000 Site Provenance trees, shrubs and grasses (from Peninsula Bushworks) were planted in and around the site to assist in increasing species diversity and as a buffer between remnant areas and pasture.



In 2004 a loop walk/nature corridor was completed which runs from the back of the winery down the west property boundary to the creek, along the creek, back up the hill on the east boundary, and then meanders back through the vineyard to the start. It combines both a nature walk for visitors and a link to other patches of remnant bush.

The idea of an East Creek Landcare group was in the air. I joined with some likeminded creek neighbours and ECO CARE (East Creek Association for Landcare) was established, led by the late John McCubbing.

Everyone in my family has lent a hand. My brother Ben and sister Mim

## AROUND THE TRAPS CONT.

would organize their friends for tree plantings. My Mum Jacky would do the big lunches and my dad George has grown to love the creek more and more. In fact, as I have moved to Rye, George has taken on the continual restoration of the creek.

A highlight of the project was collecting rough tree fern spores from remnant ferns growing in the headwaters in Red Hill. George and I grew them at home and 2 years later planted them in the creek line. Today they are magnificent!

If you would like to come and have a look, the property is open on the first weekend of every month. Drive behind the Merricks General Store, continue up Thompsons Lane and follow the signs to Merricks Estate.

Estelle.



Also well worth sampling the produce, as many of us can testify. Ed.

## DID YOU MISS IT?

10,000-YEAR BAY THEORY DOESN'T HOLD WATER  
STEPHEN CAUCHI, MAY 8 2010: [theage.com.au/.../10000year-bay-theory...](http://theage.com.au/.../10000year-bay-theory...)

Mr Cauchi reports that the belief that Port Phillip Bay has remained largely unchanged since forming 10,000 years ago has been proven false. Researcher Dr Guy Holdgate, of Melbourne University's earth sciences department, says that fresh geological data shows that the bay, which 'first formed by rising sea levels at the end of the last Ice Age, started drying out and shrinking 2,800 years ago, reaching its smallest extent 1000 years ago'.

The blocking of the entrance by sand, silt and mud islands left a very salty 'lake' only one third of today's bay. Aborigines hunted kangaroo and emu on a grassland, with salt bush. This would have been 20 metres below the sea-level of Bass Strait. The channels made by the Yarra and Werribee rivers still exist on the bay floor.

Dr. Holdgate says that Aboriginal stories of a "great flood" appear to have been correct, perhaps caused by "some sort of overtopping, big storms, even perhaps an earthquake" which unblocked the entrance and allowed ocean water to flow in, possibly taking only days to fill to its present capacity.

Although Dr. Holdgate thinks it most unlikely that the bay will dry out again because of the regular dredging to accommodate container ships, he does predict that global warming could see the flooding of Port Melbourne and South Melbourne.

The team used core extraction, multibeam sea-floor surveys, seismic surveys and carbon-14 datings in their research.

I'M SURE ALL WILL BE HAPPY TO LEARN THAT OUR INTREPID MEMBER MARK ADAMS DID NOT INCUR A CONVICTION FOR REFUSING TO VACATE LAND SET ASIDE FOR PENINSULA LINK AT WESTERFIELD LAST YEAR, THANKS TO MAGISTRATE ROSS BETTS' RECOGNITION OF THE MINOR NATURE OF THE 'OFFENCE'

HOODED PLOVER  
REPORT 2010-11

## BREEDING SEASON:

Sources: Parks Victoria & Malcolm Brown

Sixty nests, with a total of 166 eggs, were recorded on the ocean beaches in the Mornington Peninsula National Park. 54 chicks hatched and of these 9 survived, 2 more than the 2009-10 season.

Malcolm Brown, Volunteer Warden Co-ordinator, reports that 6 beaches were patrolled by 12 people for a total of 68 days (164 hours). Malcolm believes that the presence of the wardens in their fluoro vests contributed significantly to the successful fledging of the chicks. He also believes that "important benefits of the presence of Wardens... are public education concerning Hooded Plover breeding and enforcement of regulations." He hopes that in the long term this will result in a better success rate for the Hooded Plover.

Malcolm will again be carrying out this valuable service from August this year, and is always looking for volunteers. He can be contacted on:

0403 997 831 or on:  
[seawish@aapt.net.au](mailto:seawish@aapt.net.au)

## NEWS AND VIEWS

## ENDEAVOUR FERN GULLY

After a reportedly enjoyable and highly successful 'opening' event, Endeavour Fern Gully is now open to the public. The entrance to the track is in the paddock beside St Georges church, opposite the Red Hill show-grounds on Red Hill Road. This is a beautiful place to visit or work in. The unique vegetation of this spring-fed wet gully, which is in fact the head of Stoney Creek, includes Austral Mulberry, Musk Daisy Bush, Mosses and Fungi, in a variety of environments, encompassing Ferny Swamp and Damp Forest. For more information go to: [www.spiffa.org/endeavour-fern-gully.html](http://www.spiffa.org/endeavour-fern-gully.html) or call Gillian Tolley at: [gilliantolley@westnet.com.au](mailto:gilliantolley@westnet.com.au) or: 03 5989 2550

## LITTLE CRITTERS—NOT SO BAD!

We've all seen the ads: EE-EEK COCKROACH –QUICK, WHERE'S THE INSECTICIDE?!

**BUT WAIT, they are not all pest disease carriers - we have harmless, indigenous 'roaches, common name Common Shining Cockroach (*Drymaplaneta communis*).**

Despite the blue colour of the photograph (by Stuart Cunningham, Wikipedia), our 'roaches are in fact a rich, glossy brown with pale pink stripes down either side of the body. They live and feed in mulch or under bark and are virtually no threat to us.

They will occasionally wander into the house, and if so, a removal kit comprising a piece of flat card to slide under a small plastic container is very useful. Once discovered they usually 'freeze' and are easily captured and returned to the garden where they no doubt do much good! Jan Dwyer

Sources: Wikipedia, Ian Faithful.



## FOOD FOR THOUGHT:

A FOOTNOTE TO ABOVE:

It was reported in the Seattle Times, March 21st, 2011, that the United States Fish and Wildlife Service is proposing "to double the amount of West Coast beaches protected for a threatened shorebird (western snowy plover) in anticipation that sea levels will be rising due to global warming".

Our volunteers on the Mornington Peninsula are already remarking the increased number and frequency of very high tides. This reduces the suitable areas available and is therefore a threat to the nests and chicks of the Hooded Plover, which nests mostly at the base of the dunes so that the chicks are able to feed at the water's edge. Protection would mean the presence of rangers and no-go zones for beach-goers and dogs.

DEADLINE FOR NEXT NEWSLETTER:  
31ST AUGUST 2011

**NEXT SPEAKER (ON JUNE 6TH) WILL BE GAIL  
ROSSI**

**WHO WILL TALK ABOUT RAIN GARDENS—A GREAT  
WAY TO USE RAIN WATER SUSTAINABLY**

**SPIFFA IS LISTED WITH RITCHIES COMMU-  
NITY BENEFITS SCHEME— PLEASE JOIN OR  
REMEMBER TO SHOW YOUR TAG IF ALREADY  
SIGNED UP— THE FUNDS REALLY HELP.**

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**UPDATE ON STATUS OF TOOTGAROOK/BONEO  
SWAMP**

There has been increased community awareness of the ecological value of the 'swamp' and growing concern as to the lack of protection of this State significant bio-site. This is due in large part to the great efforts of the West Rosebud Community Renewal project, which has involved school children as well as the general community in workshops and performance art. To learn more about this interesting place visit: [www.spiffa.org/tootgarook-swamp.html](http://www.spiffa.org/tootgarook-swamp.html) or refer to Tom Sault's book: *The Mornington Peninsula Through the Eye of a Naturalist*, available from Trust for Nature: 03 8631 5888

**MANY THANKS AS USUAL TO PARKS VICTORIA  
AND STAFF FOR ONGOING SUPPORT REGARDING  
THE USE OF THE MEETING ROOM AND PRINTING  
OF THIS NEWSLETTER.  
ALSO THANKS TO PHILLIP JENSEN FOR TECHNICAL  
SUPPORT AND TO ALL CONTRIBUTORS.**

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