

# Newsletter

No. 183

August 2014

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South Gippsland  
CONSERVATION SOCIETY Inc.



## Papering Over the Cracks

It was the late '70's when the concept of "the paperless office" was born and, for at least the next 20 years, we confidently believed it would happen. It brings a wry smile to my face when I think about it now!

Recently, an E-mail was sent out originating from the Wilderness Society. It was headed "Your paper choice matters" and went on to outline why we should not buy Reflex copy paper. Now as most of us know, Reflex paper is manufactured here in Gippsland at the Maryvale paper mill which is operated by Australian Paper Pty. Ltd., a company owned by Nippon Paper Industries Co. Ltd. The mill is a major employer for the Latrobe region.

The Wilderness Society's message went on to offer some alternative brands of copy paper which they referred to as "Ethical Paper", paper which is recycled and not sourced from native forests. With a bit of searching on the Internet, I came across a website [www.ethicalpaper.com.au/recycled\\_copy\\_paper](http://www.ethicalpaper.com.au/recycled_copy_paper) which I found a bit more helpful than the Wilderness Society's site. It recommended a number of A4 paper products, but none of them is manufactured in Australia.



*Should we eschew our local product for "ethical" imports?*

With the plot thickening I decided to contact Australian Paper to ask if they would like to comment on the Wilderness Society's attack on their product and it's possible effect on local manufacturing jobs. I got a quick response from Craig Dunn, Senior Marketing Manager,

Sustainability Australian Office of Leading Brands (quite a handle!). This was his reply;

*"Thanks for getting in touch. Australian Paper sources our wood from a mixture of plantations (57%), Recycled wastepaper (8%) and low grade certified wood from state forests including hardwood sawmill waste (35%). We have many stakeholders including environmental groups and the local hardwood processing industry. There are virtually no hardwood plantations in Victoria suitable for producing sawn timber for construction, furniture and flooring and so Australian Paper's role in providing an outlet for low grade wood harvested as part of an integrated harvesting operation is important to regional Gippsland operations such as Australian Sustainable Hardwoods in Heyfield and many furniture manufacturers and timber processors in Melbourne in particular.*

*We are investing \$90 million at Maryvale right now to greatly expand our production of Australian made recycled paper and have also identified the need for additional plantation wood to meet our future fibre needs. However the plantations in Western Victoria which were established for the export market are too far from our mill to be viable."*

Craig Dunn also attached a copy of their Sustainability Report giving further information about their wood sourcing policy and future fibre strategy.

To borrow the words of one of our members; "The Wilderness Society should recognise that their position is not supported by the full facts and they have a better chance of influencing environmentally sound practices with an Australian-based paper manufacturer, than with many developing country sources, not to mention regional employment. The new recycling plant at the Maryvale mill should ease the pressure on the plantations (and roads) in the Strzelecki Range."

### Newsletter

### SGCS Contacts

**Editor:- Frank Hirst, phone 5659 7245, e-mail [frank.hirst@skymesh.com.au](mailto:frank.hirst@skymesh.com.au) for contributions.**

**Deadlines:- 1st February, May, August and November**

**Phone & Fax:- 5674 3738**

**E-mail:- [info@sgcs.org.au](mailto:info@sgcs.org.au)**

**Web:- [www.sgcs.org.au](http://www.sgcs.org.au)**

The Australian Paper initiative is further supported by Planet Ark and the following information appears on their website;

"Make it Recycled

*Australian Paper is proudly in partnership with Planet Ark to promote and grow demand for locally made, recycled content office and printing papers.*

*As a result, the 'Make it Recycled' campaign has been launched to encourage support for recycled paper purchasing from Government at a range of levels as well as with large business. With a rich history and successful recycling initiatives all over Australia since 1992, Planet Ark is well placed to help Australian Paper achieve this goal.*

*Make It Recycled – a unique Australian initiative in environmental innovation and leadership for recycled communication paper."*

I hope this information answers more questions than it creates, but my view is that Australian Paper P/L. is moving in the right direction with Reflex paper products, while supporting local manufacturing and employment in a time where so much of our manufacturing industry is under pressure.

Reference: [www.wilderness.org.au](http://www.wilderness.org.au)

[www.australianpaper.com.au](http://www.australianpaper.com.au)

[www.ethicalpaper.com.au](http://www.ethicalpaper.com.au)

[www.planetark.org](http://www.planetark.org)

**Dave Berry**

## Bridal Bowers or the Barbarian of the Bush?

Springtime and the coastal edge of the Wonthaggi Heathland turns bridal. Coast Teatree is lacy with fragile white blooms, trunks standing amid a litter of white petals. Mature stands in other areas are famous for 'lovers' walks'. Once you approached Waratah Bay through an avenue of old giants, and the gnarled twisted trunks at Tidal River resemble fossilized licorice. Furniture is made out of the stout sticks and trunks, it is a sought-after firewood and many coastal garden beds and retaining walls are edged/lined with this timber. It holds a place dear in the hearts of beach campers, providing shade, shelter and privacy.

But not for me. I hate it!

Coast (or Victorian) Teatree [*Leptospermum laevigatum*] extends naturally eastwards from Anglesea to NSW, including Tasmania and the Bass Strait islands, usually on the coastal dunes. A member of the Myrtaceae family, it occasionally hybridizes with *Leptospermum myrsinoides*. (We have found these hybrids at the Wonthaggi Heathland and the Campbell Street bush.)



*Like every tough, resilient species (humans included!), Coast Teatree is both a blessing and a curse.*

Picture - Wikipedia

Ranging from 8 – 12m, it has a life span of 100 – 150+ years, new plants setting seed after five years. Seed capsules can remain unopened on the tree for up to three years at the Prom, responding to water-stress to open – lopping, dry conditions or fire trigger seed dispersal. The tiny winged seeds can travel a short distance on the wind, but are thought not to be dispersed by birds. Because they are soft-coated, seeds do not remain viable in the soil for longer than twelve months and seedlings need mycorrhizal infections in soils of low fertility (acid siliceous soil). It is believed that Coast Teatree is a relatively new arrival (only thousands or tens of thousands of years ago), perhaps a mutant or successful hybrid itself. It certainly tolerates well-drained coastal soils rich in calcium carbonate (from shells) with heavy salt spray.

Sounds harmless, a good soil-binder of dunes? Certainly, but this beautiful plant has hidden depths. Fire is its ally. When hit by fire, whether a controlled burn or a bushfire, the tree dies, unable to regenerate vegetatively. Its hard woody capsules are protected and gradually open with a lack of moisture, producing up to 10,000 seeds per sq.m [Tim Offor, *Victorian Naturalist*, 1990] on soil temporarily rich in phosphorus levels, the seed viability gauged to be greater than 88%. Seedlings proliferate the following winter, predation by grazers being negligible.

The Prom'n'aides, a group of (amateur?) botanists who monitored post-fire vegetation after the 2005 and 2009 bushfires at the Prom, found that along Biddy's Track at Tidal River, in mature stands of Coast Teatree (from 1951-2 bushfires), the first spring recorded flowering lilies, orchids and wildflowers which had been dormant in the soil for 50+ years. They set seed, only to be overtaken by Coast Teatree seedlings the next year, at over 600 per sq.m.!

The Yanakie Isthmus is a prime example of Coast Teatree invasion. Sparsely wooded grassland in 1900, it was grazed until it became part of Wilsons Promontory National Park in 1969. Graziers used fire to promote new plant growth for cattle feed, but this change in burning and grazing regimes coincided with scrub and shrubland being dominated by *Leptospermum laevigatum*, in fact, a monoculture with dieback of Coast Banksia. The overshadowing by Coast Teatree and high grazing pressure limited recruitment of understory plants and seedlings. Coast Teatree had marched steadily from the dunes through closed scrub and low closed forest into the heathlands.

Working in massive swathes of Coast Teatree along Telegraph Track late in 2013, the Prom'n'aides found it dangerous and impenetrable – plants were head-high or taller, camouflaging a pick-up-sticks tangle of dead fallen spars of former trees, spikes lethal to the unwary, branches slippery in the wet. Whole stands of dead trees formed tee-pees in the bush.]

Thus *Leptospermum laevigatum* has become an ENVIRONMENTAL WEED, noticed in Port Lonsdale and Frankston in 1935, the Prom from the 1950s, Cape Liptrap Coastal Park and the Wonthaggi Heathland from the 1970s. Its dense stands have overshadowing canopy,

there is an increase in leaf litter, roots mass beneath soil, there is desiccation of the mini-environment, all leading to a decrease in species richness. Walk through any thick stand and note the poverty of species present. If the newly invaded hectares could be burnt before capsules set seed, the problem could be contained, but at what cost? Heathland plants need 15+ years between fires to prosper. Whole suites of plants would be wiped out.

Unfortunately Coast Teatree has extended west of Anglesea and into interior Victoria, as well as being introduced into WA, Qld, and SA, as well as NZ, California, Hawaii and South Africa. It has invaded coastal grasslands, woodlands and heathlands, becoming thick species-poor scrub. It has a wider potential distribution and has the ability to change the structure, composition and function of the ecosystem to form a monoculture.

So that's all the reasons I hate it! But Cook did name it because he made a tea from the tips to combat scurvy in his crew – it supposedly still makes a refreshing tea. And I'll admit that I love the old giants in the camp grounds at Tidal River and that I have a chair made of its wood. And yes, I will admire its bridal purity in the Wonthaggi Heathland come late spring!

**Terri Allen**



**Bunurong Coast Education  
in conjunction with SGCS  
invites you to**



## **Plant Identification Workshops 2014**

Tutors: Terri Allen, Mary Ellis and Lorraine Norden

Where: Bunurong Environment Centre

When: Thursdays October 16 & 23 - 10am to 3pm

Cost: \$10 per day

**The workshops will focus on pre- and post-fire monitoring as follows:**

Heathland (16 October)

Moist Forest (23 October)

BYO lunch, notebooks, plant books. BEC to provide tea and coffee. Participants to be prepared with suitable footwear and waterproof clothing for a **field trip** each workshop – the first to **Wonthaggi Heathland** and the second to **Pioneer Reserve, Kongwak**.

Please register with the Bunurong Environment Centre on  
0447352619 or email [bce@sgcs.org.au](mailto:bce@sgcs.org.au)

Participants are welcome to attend one or both workshops.

## Sea Level Rise - It's Complicated

One serious consequence of climate change, whether human-induced or natural is a change in sea levels.

There are several tricky things about climate change which tend to confuse many people and which allow climate-change deniers to further confuse those who haven't fully understood the facts.

One of these is the fact that climate scientists talk in terms of **averages**, e.g. average annual temperatures and average sea level rises.

Take temperature for example. We have been warned that average annual temperatures will rise by between 1 and 2 degrees by the end of this century if we continue our relative inactivity about climate change, and likely by 4 or 5 degrees (or more) if we don't rapidly phase out our use of fossil fuels and the massive additional load of carbon dioxide spewed into the atmosphere by their use.

So, people living in cooler climates say "What's wrong with that? It would be great to have a few degrees warmer temperatures, especially in the winter." And hot climate dwellers say "What's another 1 or 2°?"

But average annual temperatures are averages across the globe. That means some may actually fall (aha, I told you so, say the deniers), while of course others will rise much more than the average, perhaps by say 10 degrees. And the high temperatures may be for only a few days a year here, and many days somewhere else. But so, up goes the average. You see, climate change is a global problem.

But for all of us it will be a local problem of one sort or another.

So, what's the big deal? We can surely cope with the extra heat (or cold) if it's for only a few days per year. But can we?

All living things are temperature-sensitive, including us. Plants, animals and human animals will simply start to die when the temperature reaches a certain level, even if it is only for a few hours.

And what about sea levels? Some people say they haven't noticed any rise on their local foreshore, or their grandfather told them it was much higher when he was a boy! That sort of comment shows that we don't understand how science is done, nor do we understand something called long-term trends over centuries and millennia.

Climate scientists are predicting significant sea level rises ahead, and these are based on measurements already taken around the world. A global average is being talked about now of around 7 metres within a century (and of course fractions of that in the intervening years). So what does that mean for here or there?

Well, here is some of the science that we need to understand, and some of it is quite new.

As Aileen reminded us at our AGM the Greenland ice-sheet is many, many metres thick, as is the Arctic ice. These are already melting quite rapidly, and are not re-establishing as in the past after summer melts. All this water is pouring into the sea. When it is all melted (inevitable unless we stop climate change) the sea immediately around it will have **fallen (not risen)** by 100 metres! Seas for 2000 km around Greenland will tend to fall by lesser amounts as the distance increases. Seas on most European coasts would experience **rises**, but by less than the global average.

Part of the reason for this strange and unexpected outcome is because the huge ice sheets towering above the sea exert a massive gravitational pull on the sea water, pulling the local sea level up much higher than elsewhere.

Secondly, huge ice sheets actually deform the crust of the earth. For example, during the last ice age the vast ice sheets of North America and Eurasia were so heavy that they compressed the land underneath them by as much as 500 metres (half a kilometre). When that ice began melting 20,000 years ago the earth's crust rebounded part of the way very rapidly. Today Hudson's Bay, for example, is still rising one centimetre per year. Other areas are still sinking. In fact the **surface** of the sea (not only the floor of the sea) globally is full of hills and valleys, and this is further exacerbated by wind, weather and currents.

A third factor is changes in the earth's rotation. Since the earth is spinning on its axis, removing a huge, heavy ice sheet is like moving or removing a weight (balance) on the rim of a wheel. It alters the planet's balance.

When the Greenland ice sheet melts our axis of rotation will shift half a kilometre.

So next time someone tells you they haven't noticed any sea level rise, or they find Andrew Bolt convincing, introduce them to the fact that science isn't really in Andrew's remit, nor yours or mine. Perhaps we just need to take seriously what 2000 of the world's top climatologists are unanimous about!

And just a word about the West Antarctic Ice Sheet. If it melts away that will add between another 3 and 6 metres to average sea level rise. Once again, sea levels near Antarctica will fall. But most of the world's coasts will experience rises greater than the global average. For example, the east coast of the USA will experience a large rise up to 25% above the average. That will also be made worse there because that coast is still sinking 2-3 mm per year following the last ice

age. Elsewhere in the world islands will disappear and coastal areas be inundated and destroyed.

Not only are all ice sheets under attack from hotter air temperatures (if the Himalayan glaciers go much of India's water supply will be vastly diminished), but the oceans are warming and melting neighbouring ice sheets even faster.

Another surprising factor is that because of climate change increasingly large amounts of water are falling as rain on some land areas. Where these are being retained rather than running to the sea there is consequently less falling on the sea or running back into the sea. For example, in 2011 in Australia record breaking rains (and flooding) fell on parts of the country that drain inland instead of to the coast. Immense volumes of water filled our inland sea, Lake Eyre, and huge amounts seeped into the ground and into our vast natural underground storages.

Scientists noticed that while sea levels had been rising by 3 mm per year in recent times, in late 2010 and in 2011 they fell by 7 mm (a gift for Andrew Bolt). Satellite data showed that in 2011 more water was stored

on land than in previous years, mostly in Australia, South America and South East Asia.

And there's at least one more complication. Europeans might be greatly relieved that sea level rise will be lower for them than elsewhere. But there is a nasty surprise in store. The massive influx of fresh, cold low density meltwater in the Arctic could slow or stop the global conveyor belt ocean currents such as the Gulf Stream whose warm waters help to keep Europe's temperatures warmer than they would otherwise be.

European beaches may not be lost to sea level rise, but the bathers might freeze to death even before they get to the beach.

It's all a bit more complicated than we thought.

I for one am happy to take the science seriously, and get on with the business of changing our behaviour, before it is too late.

**John Gunson.**

The scientific data referred to in this article is taken from The New Scientist magazine, 4<sup>th</sup> May 2013 and 24<sup>th</sup> August 2013.

### **Citizen Science App**

This information is for those members who

- have gardens or properties or go bush walking
- notice things around them and
- may be interested in helping the scientific community keep track of what is happening to the local fauna & flora over time (phenology).

A handy iPhone/Android App has been set up by ClimateWatch in conjunction with the Earthwatch Institute and the Atlas Australia Database. <http://www.climatewatch.org.au/>

It can be used by interested individuals to record the sighting of common (& uncommon) species (photos shown in the App) around Australia on any given day.

Eg the date of the flowering of your local Jacaranda

Tree, or the sighting of a Willie Wagtail or its nest.

Radio National have done a program on this - <http://www.abc.net.au/radionational/programs/scienceshow/you-can-monitor-plants-and-animals-responding-to-changing-clima/5608214>

The App can automatically use your location to record the species position, and you can also attach a photo, or make comments if you wish.

In conjunction with this App you may also be interested in having the following free field guide apps to give you further information about these or other species.

<http://museumvictoria.com.au/discoverycentre/museum-victoria-apps/national-field-guide-apps/>

Please be free to pass this on to your friends who may wish to use it.

**Diana Droog**

### **Community Education**

BCE has rebadged its popular Adult Education program as Community Education and several events are scheduled for the coming months.

Last month John Gemmill and Becky Banks from Clean Oceans Foundation gave an informative presentation about their work, focusing on reducing effluent outfall around the Australian coastline, monitoring ocean health and organising beach cleanup activities locally.

Pictured are some of their enthusiastic volunteers working on Operation Sea Eagle



Coming up in Community Education are:-

- Energy Innovation
- Plant Identification October 16 & 23 (details p.3)
- Dolphin Research November 15th.

Further dates to be confirmed!

**Mike Cleeland**

## Regaining a Traditional Timber Market

A collaborative industry initiative is seeking to claw back the lucrative, new home construction flooring market, once traditionally the preserve of timber, but since lost to the concrete slab.

Around 80% of the sawn timber used in Australia today goes into the residential construction market. While timber's use in roof, wall and upper storey floor frame construction remains strong, its use in ground floor framing has been lost over the past couple of decades to concrete slab on ground.

The initiative is hoping to turn this around – pitching a prefabricated timber ground floor system as just as easy and even more convenient to install, particularly on sloping sites.



*Concrete slabs aren't always appropriate. Here excavation and retaining wall costs were significant and the functionality and usability of the house block is now clearly questionable.*

A key component of the new prefabricated ground floor initiative is that frame and truss (F&T) manufacturers supply builders with the whole package - design, fabrication and installation. This effectively matches what the concrete slab sector offers builders – a one stop contract that delivers a working surface, on a specific site, on a specific date for a specific cost.

Concrete slabs have continued to take market share over the years offering a cheap 'one contract' solution; anecdotally it is estimated that concrete slab-on ground today enjoys over 90% of the new residential construction market nationally. However, throughout Australia a high proportion of major new urban developments are now moving into constrained sites with sloping blocks, on reactive clays with high seasonal moisture movement, or low-lying flood-prone areas. These areas provide the main opportunities for the new raised prefabricated ground floor systems where, apart from clearly being a better construction practice, real financial benefits and savings can also be demonstrated.

Two Victorian F&T manufacturers have already installed dedicated, prefabricated floor production lines and have been making prefabricated floor cassettes for both ground floor and upper storey installation.

A recent project by Drouin West Timber and Truss at Corinella near Phillip Island in Victoria dramatically demonstrated the benefits of a prefabricated approach for the builder. In this job, the house was fully installed from dirt site to lock-up in less than six days. The builder couldn't believe the speed of the process, and with the ability now to claim up to 60% of his Progress Payment in under six days, he was very happy.

In addition to the accelerated progress payments there are a range of benefits that come with the prefabricated floor approach. These include:

- A 'high-quality' product due to manufacture in a controlled factory environment;
- A more cost effective and suitable construction option for:-
  - sloping sites (reduced costs on cut & fill, retaining walls, stormwater drainage)
  - low lying areas (reduced or no fill)
  - poor soil conditions; eg. a less risky solution for highly reactive clays as the system allows for post construction adjustment if there is soil and house movement
  - speed of construction. For builders where 'time is money,' there is no waiting for the plumber to undertake the initial pipe rough-in, or slab curing if non-concrete footing systems used
  - safety, particularly on highly sloping sites or for upper storey cassette floors
- reducing material waste and easy floor insulation installation.

**Dr. Alastair Woodard**

*(A structural engineer specialising in advice on the use and impact of building and construction materials.)*

Article reproduced with thanks to the **Australian Forest Grower** magazine.



*Drouin West Timber and Truss installed their prefab timber floor on a house site at Corinella in just two days.*

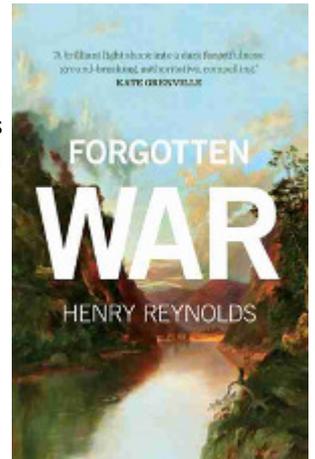
# What's New in Your Shop

New (and old) gift lines are now available and in time for September cut off for overseas postage. Delightful Australian-made infant wear with original designs by Lesley Davies

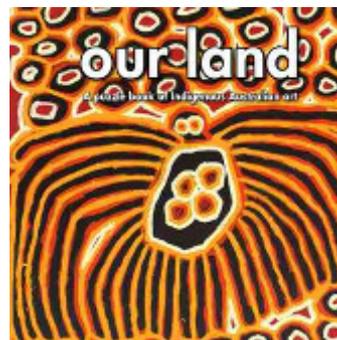
Wild Card bird-song cards are always popular for Australians living away from home.



**Winner of the 2014 Victorian Premier's Award for non-fiction!** There are no official memorials or commemorations of the wars that were fought in Australia between Aborigines and white colonists. *Forgotten War* continues the story told in Henry Reynolds' seminal book *The Other Side of the Frontier*, which argued that the settlement of Australia had a high level of violence and conflict that we chose to ignore.



We also have a great range of Bev Leversha's clay bells and jewellery.

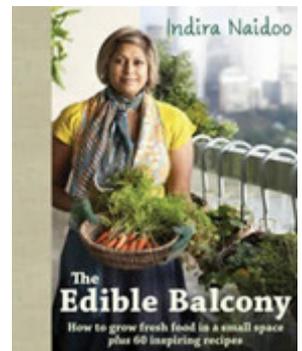


This fun, colourful and educational book introduces pre-schoolers to the art of Indigenous Australians and the idea of sharing and caring for our land. Children will develop their observation, manual dexterity and co-ordination skills as they piece together works of indigenous art.

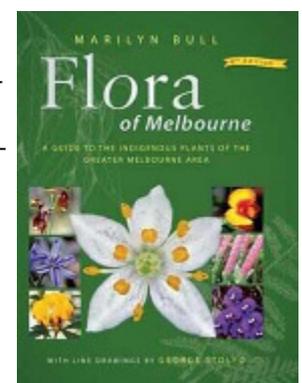
And for the gardener:-



Join popular media personality and foodie Indira Naidoo as she embarks on a mission to transform her tiny thirteen-floor balcony into a bountiful kitchen garden. The **Edible Balcony** charts a year in the life of Indira's balcony garden and gives a season-by-season account of the triumphs and challenges she faces.



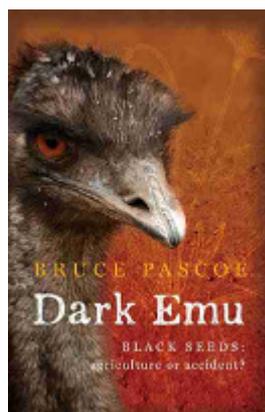
The **Flora of Melbourne** is a resource that assists in the recognition and botanical identification of species while encouraging an awareness of the inter-relationships between indigenous plants and animals. It identifies the usefulness of these species, to the local Aborigines in the past, and to all who wish to understand our diminishing natural environment in the present.



## BOOKS

Some recent publications and new editions now available

**Dark Emu** puts forward an argument for a reconsideration of the hunter-gatherer tag for pre-colonial Aboriginal Australians. The evidence insists that Aboriginal people right across the continent were using domesticated plants, sowing, harvesting, irrigating and storing – behaviours inconsistent with the hunter-gatherer tag.



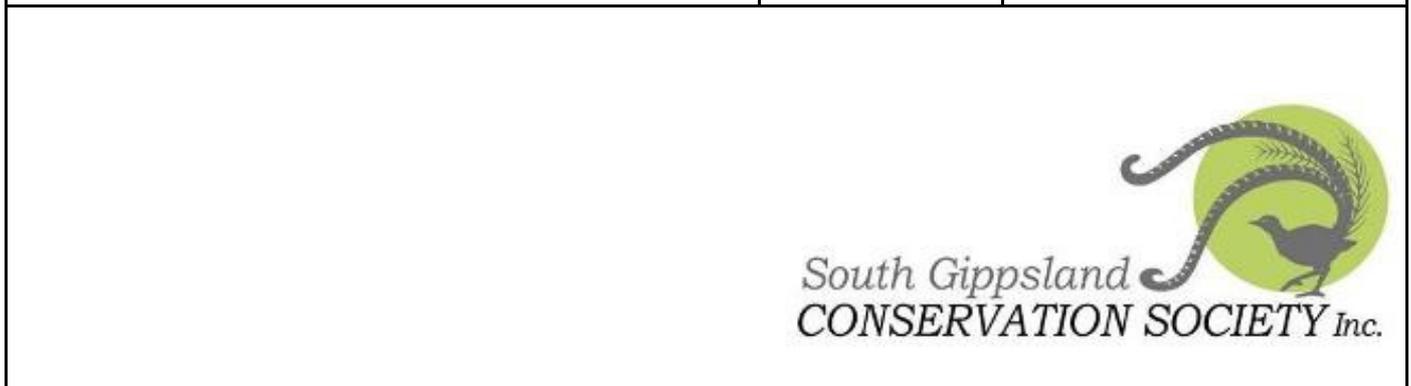
This is just a small sample of our range. We also have many children's books including Steve Parish (Pascal Press) publications and don't miss our "Bargain Books" and "Bargain Basket" for genuine savings.

**Pauline Taylor**

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