

Newsletter

No. 186

May 2015

ACN A0008011S

South Gippsland
CONSERVATION SOCIETY Inc.



Planting and Bridge-Building to Help Fill a Cold, Wet Winter!

The Conservation Society Projects Committee has again this year secured funding for the beautiful new reserve on Screw Creek. After a long involvement with the planning process, putting the case for a reserve rather than a housing subdivision, the Society is again caring for this area as the informal Committee of Management on behalf of DELWP.

A grant from Coastcare, and an additional \$2000 from the Rotary Club of Inverloch, has been used to purchase materials to build a small bridge and approaches over a creek within the reserve. This section will ultimately be part of a formalized walking track around the reserve. Four thousand plants have been grown to be planted in the cleared areas. The Bass Coast Shire has also given us funds for 900 plants around the adjacent tip and transfer station so we can extend the values of the reserve.

If you would like to come along to appreciate the estuary, creek and bushland in the reserve this is an opportunity. We need a few skilled handy-

men/builders to help construct the bridge. As we will be holding several planting days we will appreciate as many people as possible to put on their gumboots and come to at least one day. Non-society members are very welcome.

If you really want to keep busy, our good neighbours at Wonthaggi have huge areas of reserve to be planted and our members are welcome to be involved. It is eye-opening to see how much reserved land there is between Wonthaggi and the coast, much of it former grazing leases.

Please contact Dave Sutton re bridge building. For planting dates and directions keep an eye on your emails, our website (www.sgcs.org.au) or our facebook page.

Bronwyn Teesdale



The Inverloch Surf Lifesaving Club's new beach patrol tower cost over \$100K but is already being undermined by "wave and tidal action".

I took the picture at right 6 months ago and the one at left the other day. Who wants to talk about climate change now?

Aileen Venning



Newsletter

SGCS Contacts

Editor:- Frank Hirst, phone 5659 7245, e-mail frank.hirst@skymesh.com.au for contributions.

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

Phone & Fax:- 5674 3738

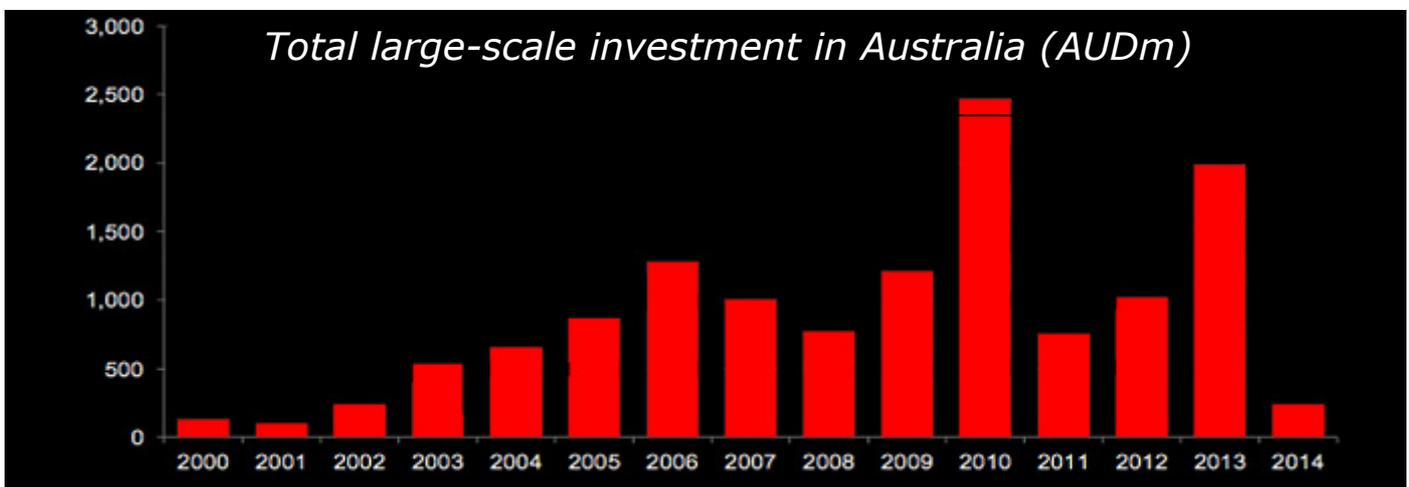
E-mail:- info@sgcs.org.au

Web:- www.sgcs.org.au

Renewable Energy - It's Not That Hard!

Extracts from Aileen Venning's talk at the AGM

- ◆ Proposed changes to the Renewable Energy Target by the Abbott Government are in the interest of big coal and gas companies, who stand to gain over \$8 billion. These changes will not reduce household energy bills and would generate 150 million tonnes of carbon pollution.
- ◆ The RET is working. Since we expanded the RET over a decade ago, Australia's electricity from wind and solar have tripled and, with the carbon price, the pollution from our power stations also decreased.
- ◆ It doesn't make sense to weaken or abolish it completely. If we are going to change the RET, the only way to go is to aim high.
- ◆ Independent polling shows again and again (Crosby Textor, EMC) that Australians want clean energy and most of us even want a more ambitious Renewable Energy Target.
- ◆ The Government needs to start listening to communities and businesses that want Australia to transition to a clean energy future and have a safe climate.
- ◆ The Legislated Renewable Energy Target is a fair bit higher than 20 per cent and it is working. At present the RET's about all we have going for us. Dropping back to 20 per cent will be a disaster for renewable investment.
- ◆ It includes small-scale production (like rooftop solar panels) and large scale (like wind farms and solar thermal).
- ◆ In 2010 the RET for 2020 was set at 20 per cent of all energy generated in a year, expressed as 45,000 gigawatt-hours, including 41,000 GW/h for large-scale renewables (LRET) and 4000 GW/h for small-scale.
- ◆ In the 2013 election campaign Tony Abbott promised that the RET would not be changed.
- ◆ This year, the government said it intends to reduce the legislated fixed LRET amount from 41,000 GW/h down to 27,000 GW/h, on the basis of substantially lower expectations for electricity usage.
- ◆ While the government can claim to be still aiming for a 20 per cent RET, its preferred option is actually about 40 per cent lower than the current target.
- ◆ •The CSIRO Energy Centre in Newcastle has used solar energy to generate 'supercritical' steam, at the highest temperatures ever achieved in the world outside of fossil fuel sources.
- ◆ Germany aims to power the country almost entirely on renewable sources by 2050
- ◆ 30% of Denmark's annual electricity consumption comes from wind and about 13% from biomass & wastes.
By 2020, they aim to produce 70% of their energy from renewable sources.
- ◆ The Scottish government plans to generate 100% of its electricity from renewable sources by 2020
- ◆ In South Australia, wind generates about 33% of annual electricity. They are committed to a 50% renewable-energy target by 2025
- ◆ Port Augusta Mayor supported the town's plans to replace local coal plants with 6 solar thermal plants and 95 wind turbines
- ◆ Yackandandah wants to be powered by 100 per cent renewable energy within six years
- ◆ ACT government aims to reach 90 per cent of energy from renewable sources within six years.



The path to a sustainable energy future was always going to be rocky given the massive interests vested in the status quo.

The Tesla Battery Heralds the Beginning of the End for Fossil Fuels

The following article courtesy of [“The Conversation ---- 5 May 2015”](#) outlines the latest in battery technology that has the potential to revolutionise home and business energy storage when the sun isn't shining. Increasing demand and projected lower/falling costs will make your PV – Battery household largely “Off the Grid” as household and business energy use efficiencies improve through the use of LED lighting and more efficient appliances and machinery. It will be interesting to see the reaction of the fossil fuel generators, distributors and “coal is good for humanity” Abbott !

Dave Sutton

While wind and solar power have made great strides in recent years, with renewables now accounting for **22% of electric energy generated**, the issue that has held them back has been their transience. The sun doesn't shine at night and the wind doesn't blow year-round – these are the mantras of all those opposed to the progress of renewables.

Now the renewable power billionaire Elon Musk has just blown away that final defence. Recently in California he introduced to the world his sleek new Powerwall – a wall-mounted energy storage unit that can hold 10 kilowatt hours of electric energy, and deliver it at an average of 2 kilowatts, all for US\$3,500.

That translates into an installed price (taking into account installation costs and inverters) of **around US\$500 per kWh of storage capacity** – less than half current costs, as estimated by Deutsche Bank.

That translates into delivered energy at around 6 cents per kWh for the householder, meaning that a domestic system plus storage would still come out ahead of coal-fired power delivered through the conventional grid.

What's more, Musk is going to manufacture the batteries in the United States, at the “gigafactory” he is building just over the border from California in Nevada. He is not waiting for some totally new technology, but is scaling up the tried and tested lithium-ion battery that he is already using for his electric vehicles.

Not just for homes

Now the fossil fuel companies – from fuel suppliers such as coal miners to coal-burning electric-power utilities – will be on the defensive, fighting the new normal of cheaper renewable supplies and storage. Instead of asking “can we have our own energy system?” communities will be asking “why can't we have it?”

The Tesla Energy system is comprehensive, with global ramifications. The Powerwall system offering 10 kWh storage is targeted at domestic users. It is complemented by a commercial system termed the Powerpack offering 100 kWh, and a stack of 100 such units to form a 10 megawatt-hour storage unit that can be used at the scale of small electricity grids.

Whole communities could build micro-grid power-supply systems around such a 10 MWh energy storage system, fed by renewable energy generation (wind or



Amid the fanfare over the launch of the Powerwall, has Tesla's Elon Musk struck a decisive blow for renewable energy?

rooftop solar power), at costs that just became super-competitive.

At his launch, Musk maintained that the entire electric power grid of the US could be replicated with just 160 million of these utility-scale energy-storage units. And two billion of the utility-scale units could provide storage of 20 trillion kWh – electric power for the world!

The revolution begins

It is instructive to put these numbers in context. There are already around 2 billion cars and commercial vehicles on the world's roads, and nearly 100 million new vehicles are being added every year.

If it's feasible to build these exhaust-pumping complex machines, it's certainly feasible to build the storage units that will help to make them unnecessary. What's more, Elon Musk has just announced that he intends to do so.

Musk is a Henry Ford-style figure who takes others' innovations and scales them up, taking the breathtaking entrepreneurial leaps that others can only dream about. Suddenly the world of renewable energy just moved to become the new normal – because when combined with cost-effective storage it becomes unbeatable.

Musk will not be alone. Already China is gearing up to be the world's renewable-energy superpower, with the largest installed base of wind power and probably by this year the world's largest installed base of solar photovoltaic (PV) power, as well as **by far the world's**

largest manufacturing system for wind turbines and solar photovoltaic cells.

There are already Chinese companies such as BYD producing their own energy-storage units based on lithium-ion technology for both domestic and commercial usage – although not as sleek nor as cheap as the new Tesla offering.

But give them time and they will be producing at comparable scale and cost, or bettering it. This is capitalist competition – and its propagation is what makes Tesla's announcement the start of the real renewables revolution.

No going back

What about Australia and the sorry state of affairs in which the Abbott government can see nothing beyond coal exports and does everything it can to halt the transition to renewables? Tesla's announcement has just shifted the ground beneath their feet.

No longer can anyone in Australia claim that renewables would be "nice" if only they came with storage. Now they do.

A smart government in Australia would be looking to ride this wave and promote Australian renewable technology as a source of wealth for the country in a post-fossil-fuel era.

Finally we would be able to move beyond the fruitless debates in Australia over whether to have a carbon tax or not, and move to the more immediate and practical issue of promoting renewable industry and technology.

China has given the world a huge lesson in the business-like way it has gone about building and promoting its renewable-energy industries, importing technology from around the world and now improving on it as well, and scaling up production so as to drive down costs.

Now Musk and his Tesla Energy have just taken that process one decisive further step, to encompass storage as well as renewable power generation. From here there is no going back.

John Mathews --Professor of Strategic Management, Graduate School of Management at Macquarie University

Forestry in Harmony with Biodiversity

Analog Forestry

*Analog Forestry is an approach to **ecological restoration** which uses natural forests as guides to create **ecologically stable and socio-economically productive landscapes**. Analog Forestry is a complex and holistic form of silviculture, which minimizes external inputs, such as agrochemicals and fossil fuels, instead fostering ecological function for resilience and productivity. Analog Forestry values not only ecological sustainability, but recognizes local rural communities' social and economic needs, which can be met through the production of a diversity of useful and marketable goods and services, ranging from food to pharmaceuticals and fuel to fodder.* [*Analog Forestry*](#)

Now, you may have to read that twice, but it sums up Analog (the Americans seem to have won the spelling contest!) Forestry (AF) a lot better than I could manage! AF was the first topic of a seminar held recently in Boolarra by the Gippsland Agroforestry Network (sub-branch of Latrobe Catchment Landcare Network).

The first speaker was Anthony Dufty of the Port Phillip and Westernport CMA. Anthony looked at AF in Costa Rica in 2013 and was mightily impressed by a 94ha property which was

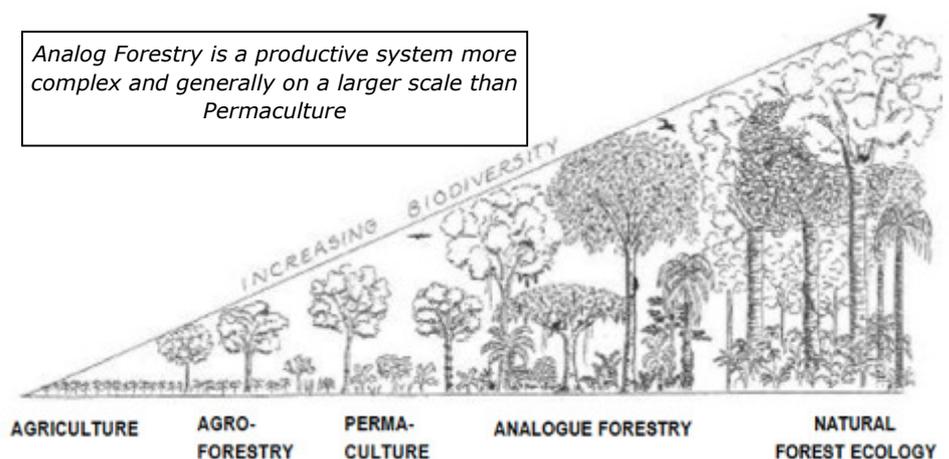
agricultural land 35 years ago but is now a thriving and productive forest producing fruits, cut flowers, timber and essential oils.

The AF system was initially practiced in Guatemala and California in the 1970s based on the traditional 'home gardens' of tropical Asia. The International AF Network was formed in 1996 to develop and popularise the AF model.

The system is based on an analysis (the physiognomic formula) of the original forest then introducing to the land those elements which can provide the same services be they native or not.

Anthony has recently been involved in the design of an AF system for a 267ha property at Euroa. Four zones were identified from riparian to hilltops, and one tech-

Analog Forestry is a productive system more complex and generally on a larger scale than Permaculture



nique employed is to incorporate productive species (eg. food, timber, flowers) into broad shelterbelts.

Anthony is a board member of the International Analog Forestry Network (based in Costa Rica) and president of the Moorabool Landcare Network which is developing trials of AF with the Pentland Hills Landcare Group.

Biorich Plantations

Next on the podium was Gib Wettenhall of the Ballarat Region Treegrowers branch of Australian Forest Growers, to tell the 30-odd people assembled about the [Im-Lal Biorich Plantation](#) (IBP) at Lal Lal, south-west of Ballarat.

A biorich plantation bridges the gap between environmental plantings for habitat, and farm forestry for landholder use and profit. Established in 2010 as a demonstration site by BRT, the 15ha IBP site has a biodiverse core replicating the original natural forest with over 40 species and five structural layers as once found in swamp woodland .



Pruning Silver Wattle in the ImLal Biorich Plantation

Clumps of commercial forestry trees, such as Otway and Sydney Blue Gum, bulk out the biodiverse core not only optimising biodiversity, but also providing resources to the landholder for farm use and income diversification. The aim is to develop a sustainable tree-growing model that integrates conservation and production.

Gib told us that Silver Wattle and Blackwood are invading but that these can be managed and used in the system. "Happenstance" has dictated that Spotted and Sugar Gums have failed leaving clearings for something else to happen!

He quoted Bill Gammage's theory that we "inherited" a managed estate from the aboriginals, and the IBP will show how 21st century landowners can be good custodians of the land too.

Fostering Biodiversity in a Plantation Estate

Next we heard Richard Appleton of HVP Plantations and, you'll be pleased to hear, there was enough material there for a whole separate article - next time!

Measuring Biodiversity with Surveys

Richard Loyn of Eco Insights who specialises in long-term biodiversity monitoring projects, was next to grace the microphone. He finds that lots of 10-minute surveys of 1ha areas is best for birds (assuming you know all the sounds!).

Richard presented his research findings that many bird types are represented nearly as well in plantations as they are in native forests, especially if understorey layers are present. Some other interesting observations he made were:-

Mistletoes and Cherry Ballarts are hard to get back in plantations and both are very important for birds. Plantations have much more biodiversity if they're adjacent to a native forest.

Introduced birds aren't a problem in plantation or native forests.

Up St Arnaud Way

Rob Youl of Landcare fame then told us about the blocks he and wife Alison have bought in the Wimmera which now total 268ha, which they are actively rehabilitating in the absence of livestock.

Local Biodiversity-enhanced Woodlot

Peter Devonshire, President of Gippsland Agroforestry Network and owner of a local property being used to conduct a field trial of novel methods to naturally enhance biodiversity in woodlots spoke last.

Peter has planted Spotted Gum and Yellow Stringybark sparsely on a cleared pine-plantation site and just watched the riot of native bush which has jumped out of the ground around them. Apart from pruning the crop trees his only intervention has been to cull a few Silver Wattles where they were overtopping the eucs.



Spotted Gum amongst the profusion of native understorey which has sprung up from the pine plantation trash.

After lunch we visited Peter's property and it looked much more like native bush (and part of it is) than plantation.

Frank Hirst

Ethical Investment

Putting our Money where our Values are

There are many ways of being a conservationist or doing conservation, from planting trees to political action, from educating the public to putting solar panels on our roofs, from protecting biodiversity to driving an electric car, and so on.

But what about what we do with our money ?

Do we just put our money into one of the big banks, or wherever our financial advisor suggests, which in most cases leaves us seriously compromised by their investments in environmentally damaging activities such as coal mining and socially damaging activities such as cigarettes, alcohol and poker machines?

Or do we first find out what these companies are investing in so that we can make an informed choice ?

There are a number of investment advisors and companies that claim to be ethical investors, but beware! All is not as it may seem. We need to actually check out their full investment portfolio, rather than take their word.

There is however one truly ethical investment company that stands out above the rest. Shirley and I have been investing with Australian Ethical Investments since 1997 (nearly 20 years). It began business in 1986, so has been around for nearly 30 years. Its performance is generally in line with the overall investment market, and frequently better.

It has a choice of funds including a Fixed Interest Trust, Balanced Trust, Smaller Companies Trust, Larger Companies Trust, International Equities Trust, Advocacy Fund, and a Cash Trust, as well as Superannuation Funds.

It invests our money in, among other things, LED light-

ing, the World Bank Green Bond to help countries hardest hit by climate change, companies recycling metal and electronic devices, a biotechnology company developing treatment for Alzheimers, a company turning plastic pollution into carpets, the largest solar electricity plant in the southern hemisphere (in NSW), a wind turbine company, solar lighting for Saharan Africa, renewable energy, a chemical-free cleaning company, the all-electric Tesla Car Company, sustainable housing apartments, community renewable energy co-operatives, and many others.

In addition Australian Ethical Investments is challenging the big four Australian banks about their investment in the proposed huge Abbot Point coal mine in Queensland which threatens the Great Barrier Reef as well as its huge effect on climate change.

Finally, Australian Ethical Investments donates 10% of its profits each year to organizations and projects engaged in positive environmental and social change. e.g. in 2013 the Asylum Seekers Centre in Sydney was a recipient.

If you want to find out more you can go to the Australian Ethical Investment website at www.australianethical.com.au

I have also asked our President if I can make some issues of their magazine "Good Money" available in the Bunurong Environment Centre for you to browse or borrow, provided you return them in a reasonable time for others to read.

In the meantime, let your money do good for the environment and for social justice, as well as providing for your future.

John Gunson.



Bioenergy Forum & Tour 2015

Bioenergy: Opportunities for businesses, local government and community groups

June 18th and 19th, Heyfield

The Victorian Bioenergy Network and Agribusiness Gippsland, with support from Regional Development Australia, Sustainability Victoria, Latrobe City Council and Wellington Shire, are organising a 2-day bioenergy event focussing on bioenergy projects and developments happening within, or relevant to, the Gippsland region.

This event will be of particular interest to local government authorities, regional businesses and facility managers and community organisations, in fact, anyone interested in looking to reduce energy costs, utilise waste streams or explore options for developing renewable energy alternatives to LPG and briquettes.

Forum will involve plenty of dynamic presentations from bioenergy enthusiasts on topics ranging from developing small-scale bioenergy projects, to funding and undertaking feasibility studies, through to implementation.

Field tour - Visiting a number of bioenergy installations in Latrobe and Wellington Shires including visits to biogas power generation and woody biomass thermal bioenergy facilities in Morwell, Maryvale and Yarragon. The program is still being developed so more details will be available soon.

More info:- Frank Hirst (contacts p1) or Liz Hamilton, Victorian Bioenergy Network P: 5235 8324 E: bioenergyinvictoria@gmail.com

Frank Hirst - latest Life Member

At our AGM in April Frank was unanimously elected as a life member of our Society.

He is our current editor of this Newsletter, now in his sixth year in that role, and while we have had a number of excellent editors, there has been none better than Frank. But that is not all that he has done.

A member of our Society for 33 years, Frank has held the offices of Vice-President (twice), Treasurer (5 years), Newsletter Editor (6 years and counting), and leader of the Korumburra Branch (5 years) and the Leon-burra Branch during its brief existence, as well as being a member of the Executive for many years.

If you add up these years of leadership in the Society, some of which offices were held concurrently, they together amount to 18 years of leadership. In other words, Frank is no fly-by-nighter, here today and gone tomorrow, but part of the solid, on-going backbone of the Society.

Brought up on a farm, Frank went on to study Agriculture at Melbourne University, after which he worked in the building industry, while travelling also broadened his experience. Bird life became an early interest and continues to be so.

He was soon to join a CSIRO scientific expedition to Central and South America, working in Mexico's Yucatan and northern Peru, then travelling throughout the continent.

He joined the Victorian Department of Agriculture as a dairy officer in 1979, and in 1989 moved to the agroforestry section as private forestry industry development officer. His role was to encourage plantations on private land and sustainable utilization of native forests. He retired from the Department in 2009.

In 1981 he bought his own farm at Ranceby, near Korumburra, where he and wife Sharon practise agroforestry, being awarded Victorian Tree Farmer of the Year in 2004.

Joining the Society has many advantages, as Frank met Sharon at a Korumburra Branch meeting! They have two children, Bevan and Bec.

The Society is grateful for Frank's years of service, and we are sure that he is not done yet!

John Gunson.



Bunny Boiler

Members will be excited to hear that Pip Cleeland has again come out winner of the annual Phillip Island Landcare "Bunny Boiler" rabbit-cooking championship.

Landcare holds this popular event as a promotion for rabbit control around the Island, and is active in coordinating a Rabbit Control Strategy for the Bass Coast Shire.

And the secret to Pip's success? Well, according to Mike, here's the winning recipe... make of it what you will! Ed.



Rabbit Stew

*I'd like to share with you tonight my favourite recipe
For chunky home-cooked Rabbit Stew, as tasty as can be
Well first we take our furry friend and pop him in the pot
Then jazz it up with herbs and spice; it's "Rabbit With The Lot!"
And while it cooks we're going to make a special Rabbit Sauce
With Phillip Island Pinot Noir, (in moderation of course)
Ad don't forget to add a pint of good old English beer
In honour of those gentlemen who brought the rabbits here
Then throw into the bubbling brew a glass of single malt
To make sure that you're balanced with the pepper and the salt
For a touch of added flavour try a thimble full of gin
And - well, any half-full bottles, empty all the contents in
Then stir it up and sip away until the night is through
And if you're feeling hungry, well there's always Rabbit Stew!*

Mike Cleeland

I/We		
Of		
Email address (please print clearly)		
Wish to renew my/our membership		
Wish to apply for membership		
Wish to make a donation		
New members to be nominated and seconded by a member of the S.G.C.S.		
Membership Subscription	<ul style="list-style-type: none"> Send cheque or money order to: S.G.C.S. Membership Officer P O Box 60, Inverloch 3996 Pay with cash or EFTPOS at the BEC, Or pay on-line (current members) to:- BSB 633-000 A/c No141390898 (Note your name). 	
Family		\$27.00
Single		\$20.00
Concession - single		\$15.00

What's inside			
Page 1	Planting and Bridge-Building to Help Fill a Cold, Wet Winter!	Page 5	Forestry in Harmony with Biodiversity (continued)
Page 2	Renewable Energy - It's Not That Hard!	Page 6	Ethical Investment -Putting our Money where our Values are Bioenergy Forum & Tour 2015
Page 3	The Tesla Battery Heralds the Beginning of the End for Fossil Fuels	Page 7	Frank Hirst - latest Life Member Bunny Boiler
Page 4	Forestry in Harmony with Biodiversity	Page 8	Membership application and contents

PRINT POST APPROVED NO. PP381667/00422	SURFACE MAIL	
 South Gippsland CONSERVATION SOCIETY Inc.		
May 2015 Edition No. 186		
If undelivered please return to:- S.G.C.S. Mailing Officer, P O Box 60, Inverloch, 3996		