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The Big Scrub Environment Centre
Newsletter

Autumn/Winter 2005

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Thanks to all newsletter contributors, as well as volunteers and supporters who have kept the centre alive over the past two decades.

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The Original Big Scrub Forest

The Big Scrub was a complex forest ecosystem of sub-tropical lowland rainforest associations covering an area minimally estimated to have been between 75,000 and 80,000 hectares.

It extended from Lismore, east to the edge of the coastal plain inland from Ballina and from Meerschaum Vale in the south to the Nightcap, Goonengerry and Byron bay in the north, including the villages of Alstonville, Clunes and Bangalow. (Try this website for model maps..... www.greenwork.org.au/bsmodels.html)

"Discovered" in the 1840's by the Cedar getters (the first white men in the area), the Big Scrub, or Red Scrub as it was sometimes known because of the magnificent red cedar trees which grew there in abundance, was almost entirely cleared by the turn of the century.

Anxious for land and fearful of the unknown, the early settlers who followed the cedar-getters saw the Big Scrub as an obstacle to settlement and development. They cut and burnt some 60% of the timber, completely unaware that this was a highly evolving forest community dating back to the supercontinent Gondwanaland, or that most of the accumulated fertility of the region was in the trees and easily lost to fires and erosion.

Today the Big Scrub is represented by only a few small isolated reserves, a mere 0.4% of it's former grandeur! Today, landcarers aim to protect the remnants of the Big Scrub and develop buffers around them and connectivity between them, using riparian regeneration.

The Big Scrub Environment Centre is an incorporated, non-profit charitable organisation directed by a management committee. The Centre is staffed by a team of dedicated volunteers. We are self-funding through tax-deductible donations, fund-raising activities and membership subscriptions.

We aim to promote the conservation, protection and betterment of the environment along sound ecological guidelines.



FAR NORTH COAST

REGIONAL STRATEGY UPDATE

A Regional Planning Strategy is being developed for the Far North Coast by the Department of Infrastructure, Planning and Natural Resources (DIPNR). The region covers Tweed to Richmond Valley, Lismore and Kyogle. The Strategy's outcomes are meant to guide the future development of the Far North Coast for local government, community and landholders and developers. It is set to replace the North Coast Regional Environment Plan, when adopted by government.

DIPNR plan to have the Strategy finalised by as early as August/ September 2005, so the window for community input seems narrow. The Total Environment Centre is looking to pull together environmental input into this Strategy, and have put out a briefing paper which is available through the regional office (details below). To get more information out about the (very significant!) implications of the Strategy on the environment, TEC held a series of environmental community meetings around the region, and the main points are discussed below.

REGION CALLS FOR 'TEETH' – AND TIME

Any new planning strategy for this region needs to please the natural environment at the forefront and have real legislative "teeth" to work – that's the united call from five environmental meetings held around the region. The meetings were held to discuss the Far North Coast Regional Strategy currently being prepared by the Department of Infrastructure, Planning and Natural Resources.

Total Environment Centre coastal planner, Valerie Thompson said "All meetings voiced strong concerns about the potential for existing state and regional planning rules to be replaced by non-statutory 'guidelines' that developers could simply disregard, with no recourse for affected communities".

"The meetings also unanimously agreed that the environment needs to underpin all regional planning – and clearly define the real limits to development and growth", Ms Thompson said. "Conservation mapping must be improved to allow an overall vision of the region to emerge – complete with corridors, biodiversity priorities and town/village limits."

All coastal areas also called for a moratorium on re-zonings (unless containing a clear environmental benefit) until the Strategy is finalised and incorporated into local planning. "There is a real concern that, just as vegetation protection regulations are preceded by accelerated clearing, we'll see even more proposals for development which places even more pressure on the vulnerable coastal areas of this region".

"Right now, there is enough land zoned for development in the region to last us around 15 years. And even though some of this land is clearly unsuitable, and should be investigated for back-zoning, there is still absolutely no reason why more needs to be considered before a broader vision for the region is developed and put in place". Ms Thompson said.

The Total Environment Centre has taken up this call by submitting a joint letter, signed by environmental groups across the state, to Minister Craig Knowles calling for the moratorium.

For more information, please contact Valerie Thompson at the local office (details below).

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Finished Detritus!

by Alan Roberts

What's Next?

It's up to us people...

Are we prepared to expend strenuous human effort to establish a bright new sustainable era or will we allow 'business as usual' to beguile us into chaos, more drastic climate change and extinction?

Setting up the trap and snaring both our feet simultaneously

Since civilisation discovered the magic of that hitherto hidden source of detritus 200 years ago we have crawled out on a fossil fuel branch. Drudgery has been eliminated by the flick of a switch and on a whim with the turn of a key, sitting comfortably, we can whisk ourselves all over the place. Even food, on average, in the US is 90% fossil (6).

Unimaginably US mutton is 99.5% fossil. Structurally our civilisation is so inextricably dependent on fossil fuel that economic myths defend it. Fossil is either infinite or, if not infinite, the as yet unknown wonders of technology will rescue us with a replacement. The accelerating fossil CO2 we're pumping into the atmosphere makes the world greener. Human induced global warming is minuscule. Increasing droughts, record heat waves, more destructive storms and floods are part of a natural cycle. Science and common sense hold no sway against these dominating economic myths.

In 1952 Charles Galton Darwin wrote (1):

"The fifth revolution will come when we have spent the stores of coal and oil that have been accumulating in the earth during hundreds of millions of years... It is to be hoped that before then other sources of energy will have been developed... Whether a convenient substitute for the present fuels is found or not, there can be no doubt that there will have to be a great change in ways of life. This change may justly be called a revolution, but it differs from all the preceding ones in that there is no likelihood of its leading to increases of population, but even perhaps to the reverse."

As everyone should know and as will be exposed as our historic lunacy, intelligence hasn't prevented us from being caught with our pants down – we're running out of fluid fossil (2) and we don't have a substitute. To hide the fact and their embarrassment authorities are blaming terrorism, developing countries, everything but the corporate driven consumption orgy.

Drastic as the effects of declining fossil fuels are, the problem pales into insignificance compared with the climate change caused by us continuing to burn the stuff. Climate change that we've already set in motion is estimated to extinguish a large percentage of all land animals by 2050 (3) and there's a distinct possibility of extinguishing life itself. A 6 degree Celsius rise in global temperature, which is on the cards by around mid century if we don't change our fossil burning habit, would release polar methane which then burns with atmospheric oxygen, causing anoxia. (4)

Let's take stock of our civilisation's dilemma.

- We've multiplied our population 6 times in devouring more than half our detritus branch.
- We have less than a generation's worth of detritus left and we can't burn it without risking extinction.
- We do not have a plan for supporting this population without fossil fuel.
- We have wasted the bulk of the fossil fuel resource, severely limiting the amount available to establish replacement renewable energy systems.
- We are not informed but instead drowned in hype about continued economic expansion, consumerism and population growth.

The remaining oil supply will be utilised in three ways:

- To maintain the global economy;
- To fight over the oil that remains;
- To create a new solar economy which will not depend upon oil.

The first 2 points benefit corporations the last one benefits people.

Extricating ourselves

This isn't a fairy story, living a fairy story got us into this mess and no fairy can undo the environmental ravages of our civilisation or let us out of our trap. With good honest science and hard work to establish a low fossil lifestyle we can barely crawl out. Daily life at least for a few decades will have to be organised on the local level.

Commuting to work and long cheap fossil fuel supply lines will no longer be viable. Globalisation of commerce will be practically extinct. As well with our over-



stretched population we have severely reduced our resource base and options. Sustainability requires that each person consumes no more than can be produced from the land areas shown in table 1. Besides this land is an area of sea with 238m sides already fished to the limits. On top of this again, in the same area, we have to leave room for 30 million odd other species we haven't yet extinguished. Without fossil fertilisers crop rotations will be leaving barely enough cultivable land to grow food. To grow any kind of biomass energy as a fossil replacement requires cultivable land of 1 to 7ha/person (1ha = 10,000m²), this is obviously not viable. Fanciful notions of a return to horse transport are extremely limited as there's only enough rangeland for either 1/8 of a cow or 1/8 horse or else 1.2 sheep per person. In short if we don't want to be badly caught out we have to think hard.

Table 1 "Available" Land Areas/person at a world population of 6.3 billion

Land Type	Side of square	Area m ²
Cultivable	49m	2388
Rangeland	74m	5462
Forest	71m	5063
Desert	69m	4750
Antarctica	46m	2105
Remainder	61m	3703
Total	153m	23500

Some essential changes

(1) Re-inventing daily life

Fossil free communities will grow food Organically, harvest their own solar and wind energy, manufacture goods, work, socialise and organise locally – preferably all within walking distance. For most people in the developed world this requires a rapprochement with the natural environment, an entirely different view of their responsibility to the reciprocity involved in maintaining its health and a new way of viewing all of life and themselves.

David Holmgren (5) is optimistic that the 1000m² (1/4 acre) suburban block can be adapted to fossil free living. People would convert their houses and garages for work and manufacture. This would bring social life back into the suburbs. The hard surfaces (roads) with the storm water system makes an excellent water harvesting system and reticulated water is already there. At least one Tropo member is ploughing his income back into permanent water controlling earth works on his farm whilst fossil is still affordable. Moving earth is comparatively energy efficient and if designed properly, is permanent.

Your local Organic farmers are a strategic knowledge resource on nutritious environmentally friendly farming. Supporting and learning from them is a very good investment for the near future.

(2) Harvesting Energy

The solar resource is often denigrated. Let's get it in perspective.

- In only 24 hours the Earth intercepts solar energy which is equal to 3 times all the energy in all the oil there ever was.
- In only 24 hours the Earth absorbs solar energy which is equal to 2 times all the energy in all the oil there ever was.
- In only 12 hours the Earth absorbs solar energy which is equal to all the energy in all the oil that's still left and is harder to get.
- In only 24 hours the solar energy absorbed by the Earth is equal to nearly 10,000 (9252) times all the fossil fuel, nuclear & hydro used by people in 24 hours.
- The solar energy absorbed daily on the Earth's deserts is equal to about 600 times the non-renewable energy that people use daily.
- All the oil there ever was, if spread evenly on the earth's surface, would have formed a layer 0.54mm thick. All the oil that's still left would form a layer the thickness of a jam tin lid (0.25mm).
- If all the oil that's left were to be divided evenly amongst the world's population there would be 20,000 litres of oil for each person. Australians used 6.7 litre oil/person.day in 2003. We would exhaust our allotment in 8 years, which occurs in 2011. [20,000 litres is a 2.7m cube – the size of a small jail cell.]

Even though solar energy is abundant we still need the most efficient systems to convert it to useful forms. Higher efficiency systems require less collecting area, less material and less fossil energy to manufacture compared to a necessarily larger less efficient system of the same output. The most efficient systems are the solar parabolic dish and wind turbine systems. In one year or less of their 30 year lifetime they replace all the energy used in their manufacture (including mining). People can make both systems largely from recycled materials with a little experience.

Solar Parabolic Dish

A 7.9m diameter parabolic dish in the Northern Rivers provides sufficient energy to support the electricity, transport (via solar hydrogen), food production, heating and goods manufacturing requirements of a 1990



vintage Australian. Currently the Climate Change Action Network (CCAN) is making a small mobile, 3m diameter, demonstration parabolic dish to power an oven, griddle plate, kettle and hot water for a market food stall. It will have red hot rock thermal storage capable of lasting about 1 week (7). A community sized parabolic dish could store energy for longer periods by high temperature water electrolysis to produce hydrogen.

Wind Turbine

A 14.5m diameter wind turbine in a good site in the Northern Rivers is the size required to support the 1990 Australian citizen. It has the attraction of generating electricity directly but requires storage via hydrogen from water electrolysis then back to electricity via fuel cells in the car, house etc. Another Ccan project is to build a smaller 12.8m diameter wind turbine at Gundarimba to power a small car to travel 50,000km/yr.

Energy Returned on Energy Invested (ERoEI)

Both solar parabolic dish and wind turbine return 30 times more energy than was used to manufacture them – about the same return as the cheapest oil discovered in Saudi. Oil, on average now, has an EroEI of 8.4 (8). Oil's chief advantage is its high energy density as a transport fuel. Coal's ERoEI is about 25 now and dropping. Nuclear power plants with an ERoEI ranging from 3.84 to 4.5 take about 10 years to build (9). PV panels themselves have an EroEI of 4 and if batteries are included the EroEI is 2.

Why bother drilling, mining, storing hazardous waste, destroying the environment, maintaining complex distribution networks when there's more energy efficient, cleaner ways of doing it with decentralised solar and wind energy?

Manufacturing renewable energy systems

With the attraction of never having to pay an energy bill again people can establish community supported manufacturing enterprises to manufacture various components for solar parabolic and wind turbine systems. It will be a big industry and a big employer if we are to harvest enough to emulate our profligate fossil lifestyle.

(3) Reduce, Reuse, Recycle

Avoiding buying something in the first place saves the most energy. Reusing and recycling locally will be crucial as we appreciate the now disappearing fossil embodied in goods (10). The forests along with their ecological services that were the genesis of Big Scrub EC are again

in dire threat of dying, this time from human induced climate change. With climate change in its infancy, local forests are already stressed. We can diminish further devastation with a massive effort now to reduce then eliminate fossil fuel burning.

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6. Norman Church, "Why our food is so dependent on Oil" at: <http://www.powerswitch.uk/portal/index.php?option=content&task=view&id=563> It's of course easier to use Google. Also "Bio-energetics" at: <http://www.uta.edu/biology/mcmahon/classnotes/bioenergetics/PDFs%20Lectures/B&L-9%20Terreiculture%20and%20Aquaculture.pdf>
7. CCAN is a group of interested people operating as a sub committee of TROPO. The plan is to link Big Scrub, TROPO & CCAN to work together on abating climate change. For details of these projects and the arithmetic & issues behind them the new CCAN website which will shortly be at: <http://www.climatechangeactionnetwork.org.au> will be the place to look. Recent issues of "Going Organic" also have details or contact me.
8. "Game Over: The Industrial Devolution" at: <http://www.playhata.com>
9. Gene Tyner, "Net Energy from Nuclear Power" at: <http://www.mnforsustain.org/>
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Big Scrub Goes in to Bat for the Western Woodlands

by Valerie Thompson

Only 10% of Australia's temperate woodlands remains.

The few remaining areas of Western Woodlands in NSW are currently being logged for low value products such as firewood and fenceposts. What's left needs urgent protection. Pilliga and Goonoo, in Central Western NSW, are two of the largest temperate woodlands left.

They are the 'Green Lungs' of Western NSW and are under threat because of logging and mining. Their protection is critical for many species at risk of extinction such as the black-striped wallaby and the glossy black cockatoo.

The western woodlands in question are on public land, belonging to the people of NSW and managed by our government. Whilst private landholders are making an effort to protect bushland, the Government has so far failed to protect these public woodlands.

We strongly urge the NSW government to act quickly to protect the woodlands and wildlife of the Brigalow Belt South and Nandewar bioregions and to create an

aboriginal owned national park at Terry Hie Hie. The survival of our beautiful native species and the health of the western landscape depends upon it.

Protecting and maintaining these vital woodlands will ensure that the wildlife, farmland and rivers of Western NSW are healthy and productive in the long term.

The creation of new National Parks is the best solution for this region.

The NSW Government is currently making a decision as to how much should be protected as National Park and how much should continue to be logged.

You can access more information about this issue at the National Parks Association of NSW website:

<http://www.npansw.org.au/>

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It's EASY!

Just fill in the membership form on the back page of this newsletter and send it to the BSEC with your payment! If you are already a member, please encourage your friends to join.

Grass Roots organisations need members to stay alive and grow.

If you are interested in voluntary campaigning work or in staffing the BSEC office, please contact us NOW!!



Tassie Forests

by Graeme Batterbury

The cool temperate forests of Tasmania are bejeweled with lichens and mosses and tree ferns dwell in the moist gullies. Over periods spanning many hundreds of years, the trees of the forest grow upwards toward the light, reach their pinnacle in the canopy and then fall to the forest floor to feed the next generation of trees as they too move through their cycle. In this part of the world there seem to be as many trees lying on the ground as there are standing. In the ancient forests of Tasmania this is a part of the natural succession.

In other parts of the Tasmanian forests, the trees lying down have been pushed over in a frenzy to extract the standing ones for conversion to woodchip for the making of paper so that rich people of the world can write their thoughts and wipe their bums!

The shattered remains of these forests that now lie upon the ground in ugly clear-felled areas are then burned to encourage the regeneration of eucalypts, or converted to monoculture plantations, to be reaped again in a twenty-three year cycle of industrialised logging.

Scant regard is held for the ecology of the forest as a whole, as fungi, lichens, mosses, insects and animals are either burnt in the conflagration or escape to the ever-diminishing forest surrounding the logging 'coupe'. Either way, the habitat destruction is changing the ecology and causing irrevocable damage to the ecosystems that depend upon the intact forest for their survival.

A recent Newspan poll conducted in 2004, commissioned by the group 'Doctors For Forests' showed that 85.4% of Australians want the Federal Government of Australia to halt the logging of old-growth forests. Yet the forests of Tasmania continue to be logged for woodchips at double the rate and volume of all the mainland states combined. When woodchipping began in Tasmania in 1970, it was going to use only 'waste' from sawmilling, but today 90% of timber drawn from public forests goes to woodchip! Saw-logs and veneer have become the by-products of

the low-earning woodchip industry, which since 1970 has seen the closure of more than 100 local sawmills and the loss of over 5000 jobs.

Tasmania's forests are being razed at the greatest rate in history, for the lowest return in history, with the fewest jobs in history!

At the signing of the Tasmanian Regional Forest Agreement in November 1997, John Howard predicted the RFA would create 1000 new jobs and he gave \$80 million of taxpayers' money to help achieve this. Since 1997 woodchipping of Tasmania's forests has increased by more than 2 million tonnes to 5 million tonnes per annum, but instead of 1000 new jobs being created, hundreds of jobs have been shed. Today in Tasmania,

there are no annual limits on the amount of timber available from public forests for woodchipping.

Forestry Tasmania has been exempted from Tasmania's Freedom of Information Act and though it claims to observe 'World's Best Practice' forestry and logging techniques, the reality is a far cry from the rhetoric.

In association with the world's largest hardwood woodchipping company, Gunns Pty Ltd, Forestry Tasmania is plundering Tasmania's forests for the once-only conversion of ancient forest to woodchips, and their replacement by plantations.

Clause 8 of the Regional Forests Agreement Act gives the guarantee that should action be taken to protect forests by future federal governments, compensation will be paid to logging interests, effectively transferring public forests into private hands.

As I walked through the forests of the Styx Valley with its majestic Eucalyptus regnans, the tallest flowering plants on earth, and again in the adjacent Weld Valley, I marvelled at the beauty and the diversity that is so alive in these forests. It seemed inconceivable that anyone could come with machinery, intent on wreaking such destruction, to feed the greed of the corporate



heavyweights who justify this destruction by promising jobs and citing the importance of returns to the shareholders, while all the time drawing fat salaries and other benefits for themselves.

In the Tarkine, ancient myrtle forests are threatened with imminent destruction in 2006, whilst in north-east Tasmania, the Blue Tier is being heavily logged and the South Sister forest is under threat.

A study conducted by Timber Workers for Forests to compare and contrast the botanical diversity, soil ecology, invertebrate diversity and timber values of old growth forests in the Weld Valley with a nearby forest coup that was clear felled in the 1980's, found that "native forests managed on short rotation cycles will never reproduce the diverse micro-habitats which characterise old forests. Poor soil structure and lack of soil humus following the clearfell, burn and sow treatment appears to adversely affect forest health and it's ability to produce good timber".

A key measure of sustainability is that no species are lost from an ecosystem. The claim that "no species are known to have been driven to extinction by forestry practices



in Tasmania" heavily relies on the lack of knowledge about the species that live in Tasmania's forests, and the fact that we know so little about the long-term effects of forest fragmentation and conversion to plantations.

'Alternative use' proposals are available from environment centres within Tasmania which present ecologically and economically sustainable strategies for managing forest and wilderness areas that will bring ongoing long term benefits to all of Tasmania. If unsustainable forestry practices continue, there will be long-term implications not just for forest ecology and bio-diversity, but also for a suite of social and economic values such as future timber quality, aesthetics, ecotourism, beekeeping and pollination services and water supply.



This year local government elections will be held and this is an opportunity for Tasmanians to say NO! to the establishment by Gunns of a new pulp mill. State government elections are to be held in 2006 and it is important that the campaign to save the Tasmanian forests from woodchipping is supported both nationally and internationally. Once the forests are gone, they are gone! A plantation with it's monoculture eucalypts or even pines is not a forest. A forest is a dynamic, living, multifaceted ecosystem that is a part of us as much as we are a part of it!

Write to your local and federal member expressing your concerns, as well as to the relevant environment and forestry departments, telling them that you will not vote for them unless they consider the will of the people and protect the forests for the benefit of everyone, not just the few who reap the rewards of unsustainable forestry practices.

March 2005

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Save Our Sisters, www.southsister.org



Chemical-Free Weed Control At Cumbebin Wetland

Parts 2 and 3
of a three part series
by Geoff Dawe

Part 2: Strategy

Since weeds are co-regenerators, they are not considered to be part of the problem. Rather, the problem is the spaces between native trees, and a narrowed focus view that weeds are of little use.

Camphor Laurel for example, is not seen as an invasive alien, but as a source of organic matter that has potential among other things, for food production.

Tweed Shire councillor, Henry James has said that Tweed Shire Council landscape workers notice no difference in the growth of trees from those mulched with Camphor Laurel chip and those mulched with the chip of other species.

In small area farm production where orchard trees are incrementally introduced, chipping can be bypassed with the use of a chainsaw that cuts camphors into carryable lengths that are then placed around orchard trees. Beetles and other small animals add manure in the reduction of logs to sawdust over an extended period. Camphor Laurel has a significant ability to recycle potassium.

Native Tree Canopy

Weeds particularly in sun positions are extremely rampant, and so they need to be to protect soil. Chemical free weed control involves keeping weeds off natural regeneration trees and adding further trees in order to keep a native tree spacing of an arbitrary 2.7-3.0 metres which is considered presently to be optimal in providing canopy cover. The Strategy is not focused in weed eradication. It is the native trees production of a shading canopy that primarily does that. Weeds in sun areas are cut or pruned away from native trees so that the energy of the weed is not eradicated, and the native seedling is selected above that of the weed.

There is an attempt to time the return so that tree seedlings are covered by weeds ideally no longer than a fortnight. A stake and fluorescent tape are extremely important because often trees can be lost among weeds.

There is also an attempt to return as infrequently as possible, and freshly weeded covered trees do not appear to suffer knockback. During the recent drought, it appeared that the encroaching weed canopy may have given seedling trees an overall respite from the drying effects of no shade. Certainly a study on the survivability rates of trees devoid of surrounding vegetation and those growing within maintained weedscapes would tend to eliminate the potential for weed myths.

Seedbank removal not a priority

The attempt to remove seedbanks is regarded by this regeneration technique as 'pissing against the wind'. Weeds serve as indicators that land use techniques have been poorly considered. The problem is not fixed by simply eradicating the weeds or neutralising seed dispersal but by considering better land use techniques and in so doing, weed proofing lands. Landowners should be aware that current conventional land use methods are involved in the process of 'killing off what wants to grow, and trying to keep alive what wants to die'.

A closed canopy native tree area does not tend to harbour weeds. Pasture areas that are made more fertile, strengthen grasses so that they have greater ability to block out, weeds naturally. Fertile pasture lands in these areas are more often than not the flatter areas. Grasses on hillslopes are often not enough vegetation, bare patches of soil emerge, and it is here that weed seed such as Groundsel, Mist & Croften weeds take hold to add more biomass than can be offered by grasses.

Hillslopes in these sub-tropical areas, need re-treesing to prevent weed incursion. Roadside verges, as demonstrated by the RTA can be thickly planted with suitable native vegetation to leave no niche areas for weeds.

In all of these areas there is no doubt that weed seed is on the ground, but if the land area is used correctly with regard to increasing organic matter levels (OML's) the seed does not tend to germinate. The seed that is on the ground lies there as an indicator – a warning of deteriorating land use and movement against it, is in effect, a movement against Nature's emergency response.



Easily Let Go of Principles

Nature appears to take delight in its insistence upon diversity to such an extent that it tends to create exceptions to all rules. Chemical free weed control is an evolving process involving observation and experimentation with every regenerator able to offer more constructive ways. Madeira vine for example presents a problem with the general principle that seed bank removal is not a priority. At the present moment we tree at close spacing with dense canopy shade loving trees on the perimeter of severe Madeira growth areas in the hope that future layered canopies may produce extremely low light levels that prevent Madeira germination. We have no idea whether this will work or not. In the meantime with new or minor infestations, corms and plants are removed according to conventional regeneration methods. There is also a tendency not to eradicate weeds, but since weed hatred appears to occupy some workers presently, there is not an insistence on cutting weeds rather than pulling them out. It is not definitive answers that are sought, but balance.

Letting go of eradication: Noticing and using the Energy of Weeds

All weed species have a beauty as well as a difficulty, so does everything else on the Earth. Chemical-free bush regeneration involves going with the beauty of a weed so that it is not nullified, and using its difficulty to select in favour of native vegetation.

How that happens requires a focus in turn on particular weeds at Cumbebin.

Part 3: Weed Succession and replacement at Cumbebin

Chemical-free bush regeneration being particularly labour dependent, produces rapid recognition that human energy is most expended on many stemmed plants in any given area such as grasses, and is least expended on few stemmed plants in any given area such as trees. In other words, exotic trees are not as difficult to control as exotic grasses. As a consequence, weeds are farmed rather than removed, and there is the allowance of a weed succession where some weeds actually work to inhibit the energy of others:

Wild Tobacco (Castor Oil plant similar)

Not seen as a threat to native regeneration. In fact consideration is being given to broadcasting it among Lantana. Many species of native birds feed from it. It therefore aids native regeneration. It provides rapid soil shading and therefore helps to inhibit grasses. Maintenance requires that it not be dominated by other weeds such as Banna grass or Morning Glory, so these weeds are cut from it.

Wild Tobacco has a relatively short life span and tends to die of its own accord after approximately 3 years and certainly after heavy shading by natives. In common with all plants that die, it leaves decayed roots in the ground which become channels for the freer passage of air through soil and therefore increases soil microflora and fauna. In effect it acts as a digger of the soil. One could envisage that in a society that looks more toward the long term, garden beds and orchards would be premeditated years ahead of their use and sowed with Wild Tobacco (and perhaps other plants) in order that the era of the turning of the soil practised by humans for so long comes to a close. Certainly in bush regeneration the deliberate removal of Wild Tobacco is more an act of destruction of the expansion of native habitat than an aid.

Its difficulty is only its exoticness and that is overcome easily by natural regeneration occurring automatically, or the planting of native trees at closed canopy spacings in its vicinity. Branches of Wild Tobacco are cut out of the way of native trees, and that organic matter aids native growth.

Lantana

An easily controlled weed that works to improve soil friability, and to provide shade to soil overexposed to sun through tree removal. In reforestation areas it is not removed but pruned as a bush or hedge. It is ironic that it was originally brought to Australia as a hedge plant and that chemical free bush regeneration over 200 years later sees its usefulness as a hedge plant. In areas of intense Lantana growth, combined access trails and planting and/or native regeneration areas are cut 1 metre wide.

Planting distances are arbitrary. In areas where natural regeneration is strong or is expected, metre wide swaths are kept clear whilst watching for native seedlings.

This article is continued on page 13.



Pulling out the big Gunns

By Louise Morris

While the pivotal 2004 federal election result did not deliver the desired outcome of protecting the remaining High Conservation Value (HCV) forests or restructuring the Tasmanian forest industry away from woodchipping, the issue has not disappeared from the public eye. The actions of Gunns Ltd., Tasmania's dominant logging corporation, has assured the Tasmanian forest campaign will continue as one of the most prominent environmental issues in Australia, if not the world.

Gunns Ltd. has issued a lawsuit amounting to over \$6.36 million against 20 defendants active in calling for an ending clearfell logging, woodchipping, plantation establishment and poisoning of native animals in Tasmania. This particular lawsuit known as a SLAPP (Strategic Litigation Against Public Participation) is an industrial style litigation made famous by the McLibel case in the U.K.

The 20 defendants, known as the Gunns 20, range from a grandmother, university students, doctors, film makers, parliamentary representatives, a community environment centre as well as The Greens party. Central to Gunns Ltds. claims is that defendants have been involved in a campaign of corporate vilification, alleging conspiracy, interference with trade and business as well as defamation.

Solicitors for Gunns Ltd., EMA Legal, filed a 216 page writ in the Victorian Supreme Court on December 13, 2004 seeking damages totaling \$6 360 483.00.

While this lawsuit will take up considerable time, energy and money from the activists involved, it will not detract or distract them from campaigning for the protection of Tasmania's HCV forests in the lead up to the state election and beyond.

Tasmania faces a state election in mid 2006, an election that will re-ignite issues raised during the federal election. Including the divisions apparent between state and federal Labor on forest protection. While there is little difference between state Liberal and Labor party's on forests and many other issues, the potential for gaining further increases in Greens and independent representation is great.

The reality of the situation in Tasmania remains that we cannot expect any substantial moves forward coming from the powers that be within the state. It is still on the national and international stage that Tasmania's forests must be championed. As the profile of Tasmania as a premier tourist destination and location for many 'sea

changers' continues to grow, the outdated and insular modes of self regulating forestry practices will continue to come under the spotlight.

As is so often the case in changing practices of large corporations and government economic factors speak the loudest. This means corporate campaigns targeting Japanese buyers of Tasmanian woodchips will continue, as will national and international awareness raising efforts to show the natural assets of Tasmania, and the community campaigns to protect local forest areas.

By showing what we risk losing at the hands of irresponsible forestry practices we have the best chance of turning the tide of the Tasmanian woodchip driven timber industry. Creating some long term positive change and installing a sustainable timber industry that is not reliant on woodchip production. One that can co-exist with tourism, honey production, specialty timber users and most importantly the people who live in Tasmania, and dearly love its landscapes and forests.

Do not be silenced – the Gunns 20 campaign stands for democracy, free speech and the protection of Tasmania's forests.

Offers of money and services for the Gunns 20 campaign will be gratefully accepted. More importantly we need to make sure that vexatious lawsuits such as this one do not stop people from speaking out when they see a wrong.

To find out more about the 'Gunns 20' case and the ways in which you can help go to:

www.tasmedia.org, www.mcgunns.com,
www.wilderness.org.au or www.thegreens.org.

Money can be given to any or all of the defendants through ;

Donating to the Gunns 20 via Bob Brown

Cheques/Money orders can be made out to Bob Brown (Gunns 20). Please include all contact details in order to be receipted and post to:

GPO Box 1562 Hobart 7000.

The Gunns 20 defendants are:

Alec Marr, Geoff Law, Russell Hanson, Leanne Minshull, Heidi Douglas, The Wilderness Society Inc, Adam Burling, Louise Morris, Simon Brown, Robert Brown, Margaret Putt, Helen Gee, Ben Morrow, Lou Geraghty, Neil Funnell, Brian Dimmick, Huon Valley Environment Centre Inc, Peter Pullinger, Frank Nicklason, Doctors for Forests.



Chemical-Free Weeds Control At Cumbebin Wetland, Part 3 continued:

Hedges are maintained with standard hedge shears or with a sharp machete or sage grass knife, but initial cutting of metre wide planting/walking/natural regeneration areas is done with machete and loppers. The difficulty of Lantana is that initial cutting takes quite some time with canes being up to 50 mm thick, and cut material needs to be cut into smaller lengths in order that it may 'lay down' in slashed areas. But its difficulty, as I promises in 'Noticing and Using the Energy of Weeds' (*The Big Scrub Environment Centre Newsletter*, Issue 2), is its weakness when it comes to selecting for the growth of natives above that of the weed. Because thick canes take a comparatively long time to grow, a months growth, about the space of time before a return visit, yields comparatively thin branches which are quickly trimmed. Lantana maintenance is very easy when compared to its initial cutting. Hedges can be cut shorter in winter whilst native seedlings require more sun, or be left grow longer in summer to provide greater shade for optimum growth of native seedlings.

In areas where native trees already have some maturity and Lantana has draped itself over the trees, enough vines are cut at ground level to ensure tree survival, but often many canes are left to provide further shade to soil and to prevent secondary weed infestation by difficult to control grasses. In this way Lantana acts as a partial screen and therefore more obviously aids the work of bush regeneration.

Lantana diminishes in energy as shade from natives intensifies. Eventually, it has little 'will' to remain and eradication becomes unnecessary.

In fact under a closing canopy situation, the reduced vigour of Lantana allows it to occupy a lower storey position where it is able to continue its work of provisioning animal life and soil, without threat to a dominating native system.

Next Issue: Banna grass as grass inhibitor and Madeira focus forces on soil.



The Centre for Ecotechnology

Turning wastes into resources by closing cycles locally, visibly and elegantly.

Ecotechnology is the design of sustainable ecosystems that integrate human society with its natural environment for the benefit of both. The Centre for Ecotechnology at Southern Cross University was established in June 2003 in response to increasing demand for research and consultancy services in the following areas:

- solid waste management including social surveys to monitor client satisfaction
- effluent reuse land application systems
- mop crop interactions
- soil/effluent interactions
- on-site wastewater management
- landfill leachate management
- constructed wetland design
- aquatic habitat assessment and rehabilitation
- integrated water and nutrient management systems

For more information go to the CET Website:

<http://ecotechnology.scu.edu.au>

David Suzuki is coming to town!!

World-renowned **eco-warrior** David Suzuki will be speaking on *Sustainability and the Organic Industry* at the **Brisbane Convention Centre**, Southbank on **Monday 23 May 2005**, from 7:00–9:30 pm

David Suzuki will also be presented by Byron Bay Writers Festival & Sydney Writers Festival at **Byron Bay High School** on **24 May 2005**.

Tickets are on sale in May.

Visit: www.byronbaywritersfestival.com



Membership Application and /or Change of Contact Details

If you are already a member, you can pass this form onto a friend who may be interested in becoming a Big Scrub Member.

NAME:

ADDRESS:

TELEPHONE:

E-MAIL:

Standard Membership.....\$22 per year

Family/ Eco group\$55 per year

Concession / Student\$16.50 per year

Life Membership\$330 once only

Volunteers \$11 per year

All membership fees include 10% GST

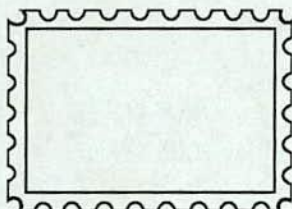
Enclosed please find Cheque/Money Order to the value of:

Signature of Applicant:

Please mail to:

The Big Scrub Environment Centre,
5/142 Keen Street, Lismore NSW 2480

or come into the Big Scrub Environment Centre in person.



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News

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