CNFN

Central North Field Naturalists

the **Natural News**

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Walks and Events

November 7, AGM at Frankford walk

December 5, Weegena at 9:30 am. Walk to Granta Pools Gog Range. Meet at Jim Nelson's, 68 Dynans Bridge Rd. Travel to the Gog Range by car (20 min.) and then climb about 1 hr. to the top. Walk across top to Granta Pools to investigate an unusual eucalypt of unknown species and an unidentified *Shoenus* species. We will also identify frog species in the pools, look for freshwater crayfish signs, list birds, plants and various etceteras.

January 16, Cradle Mountain 10 am A look at the Epacridaceae family Meet at Middlesex Plains on the Link Road turnoff to the National Park. Park fees apply, so organise to be in a car with a National Parks pass or pay at the entrance gate.

February The annual tidepool excursion at a time and place to be announced in the next newsletter.

Threatend Species Strategy

by Jim Nelson

What might be expected from a draft Threatened Species Strategy (TSS) produced by a Parks & Wildlife Service that resides within the Department of Primary Industries? That such a document should pay craven obeisance to the politically powerful exploiters that largely threaten species might be the logical expectation, and unfortunately this is largely the case.

A 'strategy' should be a plan aimed to obtain a specific result, such as removing the threats from threatened species. Instead we appear to have a 'stratagem' which is a scheme designed to deceive the enemy – conservtionists. We should not be surprised, but we definitely should be bitterly disappointed.

Conservationists are a very marginalised group in the threatened species arena. For instance, the *Threatened Species Protection Act 1995 (TSPA)* establishes the Community Review Committee (CRC) with a membership of nine. The arrogance is

such that a token conservation organisation in the CRC need not be considered. So, where does this leave threatened species?

Basically, the TSS promotes a philosophy that if the key players (agencies, governments, landholders and industry) all accept their responsibilities under the *TSPA* and enter into proper consultation, everything should be able to fall into place. All that is then needed is to follow the objectives, actions and performance indicators scattered through this document and *Eureka!*, no more threatened species. This is such an incredibly obvious and efficient way of working that we should inform the police force immediately. All the police really need to do is consult properly with speeders and drink drivers, and they can do away with speed cameras, breathalysers and annoying court appearances, plus our roads will be wonderfully safer.

Okay, let's face the facts that the political masters are not about to take threatened species seriously enough to allow a Threatened Species Strategy that has enough teeth to recommend strong legislation on land clearance, real protection of critical habitat, legislation to stop the degradation of our waterways, the end of wetlands drainage and strengthening the *TSPA*.

So, where does this leave us? Our main comment must be that the TSS does as little as possible for threatened species while making sure that the *threatening* species will not be particularly inconvenienced. Meanwhile, many fellow species continue to struggle at our hands.

Birds and Fire

by Sarah Lloyd

"The most serious factor of all is the destruction of both food supply and shelter and, of course, breeding haunts, by bush fires. I consider that these...factors, especially...bush-fires, account for more that nine-tenths of the disappearance of certain forms... I am confident that the indiscriminate burning of bush, which is concomitant of all farming and grazing operations, is by a long way the major cause of the disappearance of many of our rarer species". Ashby (1924)

The above statement is taken from an article that appeared in The Emu in 1924 by E. Ashby titled 'Notes on extinct or rare Australian birds, with suggestions as to some causes of their disappearance." (Emu 23:178-83) Despite this early recognition that fire could be a significant threat to birds, there have been few long term studies to determine its full impact.

There is no doubt that fire is a frequent and important ecological event in eucalypt forests and woodlands throughout Australia and it plays a major role in shaping the structure and species composition of the vegetation which in turn influences the distribution and abundance of forest and woodland birds.(Recher 1985)

However, the effects of both wildfire and repeated low-intensity control burns, coupled with the extensive fragmentation of native vegetation that has occurred throughout the country may lead to species, now perceived as common, suffering an almost imper-

ceptibly gradual, but inexorable, decline. (Woinarski & Recher 1997) This can only be exacerbated if practices continue to be planned from a local rather than a landscape-scale perspective and while more consideration is given to social and economic rather than ecological factors.

The aboriginal use of fire is sometimes used as justification for current management practices. This again disregards the landscape-wide perspective – aboriginal people were not concurrently clearing vast tracks of land for farming, nor were they clearfelling native forest on a massive scale. Nor is it likely that they burnt any wet forests.

Fire as a management tool in National Parks and reserves is used to retain a diversity of vegetation types, or to 'manage' for a particular species and seems to be driven largely by the predominance of botanical (as compared with zoological, ornithological and entomological) expertise in the bureaucracy. The overall ecology of an area is often ignored with the possibility that there will be undesirable outcomes for many other species.

With the arrival of warm spring weather and the looming threat of a hot dry summer, people may be eyeing off dense scrub and piles of logs on their properties with the intention of carrying out hazard reduction burns.

I don't pretend to have all the answers in this highly vexed issue, but before you do drop that match, please remember that for birds and many other life forms, the 'hazards' we are so keen to get rid of are the very things they require for food, shelter, nesting material and nest sites.

With particular regard to birds, there are many things that need to be considered by those so ready with the matches:

(a) Breeding:

In temperate climates birds traditionally breed in spring and early summer with the major factor determining the breeding season being the availability of food. As nest-building, egg formation, egg-laying and incubation take at least a month, birds need to anticipate the period of food abundance often by a couple of months. It is advantageous for birds to time their breeding so that when their young are in the nest or are recently fledged there is a peak in the abundance of food. Food shortage and other disruptions such as fire early in the season may delay breeding so much that birds miss the peak in abundance in their food.

Birds that breed earlier give their young a longer period in which to learn how to feed themselves before food becomes scarce. Early breeding gives adults other advantages – the chance of a successful second breeding attempt if the first fails, or a chance to rear a second brood of young.

Even the most experienced breeders must overcome numerous difficulties in rearing their offspring to independence – these include:

- predators such as currawongs, ravens, kookaburras, reptiles, and mammals;
- brood parasites such as the Pallid, Fantailed and Shining-bronze Cuckoos

that parasitise the nest of small birds such as thornbills, scrubwrens, Eastern Spinebills and other honeyeaters.

Young Pallid Cockoo (left) & foster parent

•extreme weather conditions such as sudden cold periods in spring that may chill eggs or kill chicks. Hot weather can cause mortality, and heavy rain and strong winds may swamp or dislodge eggs.

(b) Moulting

All birds need to moult at least once a year as birds with worn feathers may be inefficient at flying and feeding. Renewal of feathers is essential for the maintenance of health, temperature regulation, protection of the body and, in most species, flight. New feathers, like breeding, require protein and energy. Consequently breeding and moulting rarely coincide. Moulting usually follows breeding in late summer and autumn, and, as birds are particularly vulnerable at this time, they need a safe place to go.

(c) Availability of food

Many birds need to store fat to fuel migratory flights and sedentary species require a reserve for winter when food becomes scarce.

Many species of bush birds such as the Bassian Thrush, Tasmanian Scrubwren and robins feed almost exclusively on invertebrates in the litter layer. This is completely obliterated in most fires, and is of course the desired outcome of fuel reduction burns.

Rotting logs represent hot spots of insect biodiversity in forested habitats with hundreds of species of insects in Tasmania being dependent on log-dwelling fungi as a food source. (McQuillan 1996)

As most birds are insectivorous at some stage in their breeding cycle the continual depletion by fire of organic matter such as leaf litter and decomposing logs – and the invertebrate fauna that this material supports – must be compromising the chances of long term survival of many of our bird species.

(d) Inverterbrates

A policy of burning in short cycles gives few invertebrate species a chance to recover. Studies have been undertaken in the dry sclerophyll forests in Northeast Tasmania to determine the impact of repeated fires. On only one site did the authors observe an active and diverse invertebrate fauna, and this was an area that had

not been burnt for at least 15 years. (Neyland 1996)

As can be seen from the accompanying chart, many birds use spiders' web in the construction of their nests. The intricate architecture of fallen twigs and leaves in the understorey is important for small web-building spiders that rely on this three dimensional structure to build and maintain their snares. (McQuillan 1996)

Conclusion

Past research has concentrated on the occasional catastrophic wildfires that have always been perceived as the most serious threat to bird conservation. However, the more frequent use of low intensity fire as a management tool may be affecting all birds and especially those with restricted distributions, limited reproductive potential, poor dispersal ability and/or narrow habitat requirements.

When it comes to burning, it seems that to a large extent, myth, anecdote and casual observation substitute for detailed knowledge when it comes to making management decisions. (Woinarski & Recher 1997)

"Mosaic burning" is often said to be the answer. However, the size of the mosaic is rarely, if ever, mentioned and presumably this would vary considerably depending on the vegetation type being managed. Priority is generally given to maintaining vegetation communities rather than looking at the overall ecological picture. It is not simply the floristics but rather the structure of an area that determines the presence of species in a bird community. (Gilmore 1985)

In Australia, the most detailed long-term studies suggest that frequent, low-intensity fires may lead to the decline and loss of some bird species which are presently perceived as common and little affected by mild fires. (Woinarski & Recher 1997) This alone should give pause to our view that we know what we are doing with fire.

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Breeding times, nest sites and materials nee

Species	Time	Nest Site
Brown Falcon	Aug-nov	renovated nest of corvid or other raptor, tree hollow
Brush Bronzewing	Sept - Jan	near or on ground, under cover
Yellow-tailed Black-Cockatoo	Nov-Feb	large, high tree-hollow
Green Rosella	Nov- Feb	tree hollow
Laughing Kookaburra	Sept - Jan	tree hollow below 20 m. or hole in bank
Superb Fairy-wren	Sept - Jan	dense vegetation on or near the ground
Striated Pardalote	July - Feb	tree hollow or bank
Spotted Pardalote	Sept-Dec	burrow in bank, road cutting or garden sandheap
Tasmanian Scrubwren	June - Dec	understorey
Tasmanian Thornbill	Sept - Jan	low shrubs or bracken 1-3 m. from ground
Brown Thornbill	June - Dec	low in undergrowth
Yellow Wattlebird	July- Jan	low to about 20m high in fork
Yellow-throated Honeyeater	Aug - Jan	understorey within 1m of the ground
Black-headed Honeyeater	Oct - Jan	pendant foliage or sapling
Crescent Honeyeater	July - Jan	understorey 1-2 m high
New Holland Honeyeater	July - Jan	understorey,(shrubs or bracken)1-3 m high
Eastern Spinebill	Aug - Dec	foliage 1-5 m from ground
Scarlet Robin	Aug - Jan	fork, horizontal branch or cavity, 1-3 m from ground
Flame Robin	Aug - Jan	cavity or tree fork, upturned roots up to 20 m
Pink Robin	Sept - Jan	treefern, shrub or tree 1-6 m from ground
Dusky Robin	Aug - Jan	cavity of stump,bole of euc. fork, crevice 1-6m
Olive Whistler	Sept - Jan	dense shrub, tree, bracken, cutting grass
Golden Whistler	Aug - Jan	low in shrubbery or upright fork 1-4m high
Grey Shrike-thrush	July - Feb	fork, tree, cavity or vine
Grey Fantail	July - Dec	slender horizontal fork of shrub, tree to 12 m
Grey Butcherbird	July - Jan	sapling or shrubby tree 2-10m high
Forest Raven	Aug - Nov	Forest Tree over 10 m high
Beautiful Firetail	Sept - Jan	dense understorey 1-6 m
Welcome Swallow	Aug - Dec	trees, banks, cliffs or buildings
Bassian Thrush	Aug - Dec	fork 2-10 m high

Reference:Pizzey, G. Knight, F. (1997) The Field Guide

ded for nesting of some common forest birds.

	Nesting Material required
	twigs and rootlets
	decayed debris
	grass, moss, rootlets and twigs
	bark fibre,rootlets and grass
	bark shreds and grass
	grass, twigs, rootlets and leaves
	bark shreds, grass and spiders' web
	bark shreds, grass, spiders' webs and egg-sacs
	twigs, bark strips,wool, grass
	bark shreds, grass, leaves, spiders'web, troefern fibres
	bark, grass, plant-down, hair, fur and spiders' web
	bark, spiders' web, grass, down, hair and feathers
	twigs,grass stems, spiders' web and plant down
	grass, moss, hair, spiders' web and feathers
	bark, moss, grass, spiders' web, hair, fur and feathers
	bark, grass, spiders' web, moss, lichen, fur, hair, plant down
	bark, moss, spiders' web, lichen, fern fibre, hair and grass
	grass, bark, rootlets hair and wool
	twigs, bark, leaves,grass and rootlets
	bark, spidrs' web, stems, rootlets, fern fronds, grass & twigs
	bark strips, grass and rootlets
	fine grass, bark strips, plant fibre and spiders'web
	twigs, grass and roolets
	sticks, bark and wool
	green grass, creeper stems, plant down and feathers
	mud pellets bound with grass, lined with fur, hair, grass
	rootlet, bark strips, green moss and lichen

to the Birds of Australia. Angus and Robertson, Sydney.

Conservation on the NORTH Island

by John Hayward

Ever doubted the advantages of owning your own government? Then take a look, as I recently did, at the instrument for creating conservation covenants on private land as part of the Comprehensive, Adequate and Representative (C.A.R.) reserve system under the RFA. Not content with achieving de facto title to about two thirds of our public land at the apparent cost of no more of a few well-aimed political donations, the chippers have rigged up a system here which appears to have the potential to provide them with taxpayers money for warehousing their privately owned areas of high conservation value until such time as they decide to call in the skidders.

A covenant is a common law device for creating a non-possessory interest in land, most commonly by restricting the owner from specified activities. It is generally not ironclad; it may be extinguished on the basis that the purpose, in this case conservation, is no longer compelling, or that it imposes undue economic hardship on the proprietor. In the covenants created for C.A.R. reserves, however, the loopholes have been increased in size and number to the extent that a log truck may pass through without slowing down.

Prospective C.A.R. reserves on private land containing trees are to be identified by the Timber Harvesting Plans (THP) submitted by the woodchip companies to Private Forests Tasmania. In this manner the potential for abuse or mismanagement is eliminated – it becomes a certainty. If priceless conservation values are noted, the owner may be invited (there is no compulsion) to enter into a conservation covenant with the Crown. The public have no legal interest in the reserve thereby created and may not take legal action to enforce the covenant.

In the "General Covenants" in the instrument, the owner agrees to abide by the Management Plan drawn up by the Crown, in consultation with the owner, which sets out restrictions as to such activities as tree harvesting, vegetation clearance, herbicide use, slashing and burning, grazing, removal of soil, gravel or other natural resources etc.. Curiously, there is a second set of "General Covenants' (but with the same section number as the first) for "more sensitive areas". In this one there is an unqualified prohibition on just three activities: tree harvesting, grazing, and mining. If you imagine that timber harvesting is utterly incompatible with any notion of a conservation reserve, have a look at s.9 of the instrument which requires the approval of the P&W minister for any THP. While there, you may as well enjoy s.10, which prescribes that any dispute between owner and Crown shall be finally be determined under the *Commercial Arbitration Act 1986*.

Compensation for the owner will be determined by the usual committee of very interested parties and paid directly. The quantum will be determined on a commercial basis, most prominently on

the market value of the timber being spared. Seemingly, this would be paid as an annuity, as the value of the timber is subject to change over time. If the market rises, a corporate owner would seem to need only wait for the next statutory five-yearly review of the management plan, at which time a stratospheric demand for increased compensation can be made for rejection by the minister, at which point the original THP can be resubmitted. Amazingly enough, *the National Parks & Wildlife Act* expressly forbids the Forest Practices Board from refusing to approve the THP or applying any conditions to protect the conservation values for which the covenant was made.

You may ask why the government doesn't simply buy these reserves the same way Forestry Tasmania and Private Forests Tasmania is using public funds to buy farms and bushland for clearfelling and pulpwood plantations for its private sector partners? Or, why don't they create some statutory device like the Private Timber Reserve, created in 1985, which lasts forever? While an owner has the right to ask for revocation of a PTR, he/she appears to have no legal grounds to demand it, even if two rotations of pines have left the place suitable for nothing but a parking lot. The FPB, however, can refuse revocation (1) if any other party has rendered financial assistance in the development or maintenance of the PTR or (2) if the PTR has been recognised as such by a planning scheme or any other act. In short, the Board can seemingly refuse revocation in any case it chooses and prevent the owner from using the land for any other purpose. These provisions could prove very handy to plantation managers if the riches verbally promised the owners from the harvest of the first rotation fail to materialise. You might put these questions to David Llewellyn, if you are serious about killing some time.

All criticism aside, permitting large commercial interests to draft their own legislation is integral to the central furphy of our times, the "trickle-down" theory of wealth distribution. It both provides our corporations with a huge competitive advantage over the rival public interest, and greatly reduces corruption, by legalising it.

In the Footsteps of Garibaldi!

by Tony Aliano

On October 18th some of us were fortunate to visit Three Hummock Island. Prior to that I was provided with a paper of an extensive work on the flora of the island by Steven Harris and Jayne Balmer*, which included a small account of the island's history. To my bewilderment, I learned that Giuseppe Garibaldi had landed briefly on this island in 1852 for fresh water.

Garibaldi is regarded as the father of modern-day Italy, responsible for its liberation and unification. He is known to Italians as the Hero of Two Worlds, since he also fought extensively in South America.

You can visit ancient cities and wonders such as the pyramids, and be filled with the history of the place and those who made it – standing in the very spot where they must have lived

and played. For me, it was with great elation that I stood on Chimney Corner, on a remote island knowing this was where my childhood hero landed.

My trip to the island also helped me gain a new perception of this man of action. He was a man who must have also loved solitude, remotness and nature, as recorded in the scanty few writings he left. Harris and Balmer include this intriguing quote from him recalling his visit to the island: "*How often has that lonely island in Bass's Strait deliciously excited my imagination, when, sick of this civilized society so well supplied with priests and police agents, I returned in thought to that pleasant bay, where my first landing startled a fine covey of partridges, and where, amid lofty trees of a century's growth, murnered (sic) the clearest, the most poetical of brooks, where we quenched our thirst with delight, and found an abundant supply of water for the voyage.*"

Standing on Chimney Corner, I understood what millions of Italians fail to comprehend – how the Hero of Two Worlds who could have had honours and riches, asked for nought, and retired on a modest property on a small island to spend the rest of his life.

*Harris, S. & Balmer, J. 1997: The Vegetation and Flora of Three Hummock Island, Western Bass Strait. Papers and Proceedings of the Royal Society of Tasmania, Vol. 131, pp. 37-56

Tony at Chimney Corner on Three Hummock Island Contemplating Garibaldi's Aura
(Cape Barren Geese and Hunter Island in background.)

5 Days on an Island

by Jim Nelson

The destination was Three Hummock Island, one of the larger of the Hunter Group off northwestern Tasmania. The light plane out of Smithton could carry 3 people, and so made two flights to deliver Sarah, Ron, Tony, Steve, Zoey, and myself to the island. The half hour trip gave spectacular views of the islands – Perkins, Robbins, Walker and the east coast of Hunter. We settled lightly on the grass runway at Three Hummock and were met by Rob Alliston, who ferried us to our accommodation. We had prepared ourselves with maps and lists so that we would have a feel for the natural values, the geology and the landforms, and now we eagerly scanned our surroundings while Rob pointed out landmarks.

Our accommodation was a large cottage with comfortable beds and rooms, and everything we needed except the food and personal belongings we brought. The sitting room contained a sunny corner with a table (where Tony immediately installed his microscope) and bookcases full of intriguing books. Zoey soon found Escape To An Island (Rob's mother's book) and had her nose in it for most spare moments the rest of the week.

The plan for the trip was for Steve and Zoey to assess the numbers and health of the Forester Kangaroos on the island, and to design repeatable count areas. The CNFN four members planned to list plants, birds, reptiles, frogs, crayfish and anything else we noted. The first full day was to be an excursion to the top of South Hummock for the four of us while Steve and Zoey carried our their counts.

Steven Harris the senior botanist for P&W had provided us with his and Jayne Balmer's paper "The Vegetation And Flora Of Three Hummock Island, Western Bass Strait". This excellent work provided us with a wealth of information on the island including a plant list we planned to use as a check list to see what we could add. In the historical references in this paper, we discovered that the Italian revolutionary, Garibaldi, briefly visited the island to take on fresh water in 1852. Since this was Tony's childhood hero in Italy, nothing was going to stop him from getting to this island.

One of the most unusual plants we noted was *Olearia glutinosa* which is restricted in distribution in Tasmania. This is the dominant *Olearia* on the island, but unfortunately was not in flower. Margaret Kinsey had informed us that a blue flowered form was to be found on the island.

We only managed to add a couple dozen plants to the list, and seven of these were orchids that we were able to catch in flower. We passed the orchid locations on to Peter Tonelly who was to visit the island soon to survey for orchids.

Thursday morning dawned foggy with a prediction of rain. The plane was unable to take off from Smithton to get us (hee, hee). Steve and I decided an adventure was in order, so we borrowed the two mountain bikes with a plan to get to Emerald Swamp in the middle of the island.

We conferred with Rob on finding the swamp which we knew to be located in the middle of thick vegetation. We were told to wade the creek until we came to open water, and then circle around this by sticking to the cutting grass. Steve and I looked at each other – "Stick to the *cutting grass*"?!!

By the time we reached the top of the pass between South Hummock and Bronzewing Hill, we were soaked in the rain and our own sweat. We stopped in the hut and had a hot drink, then looked at each other and began laughing. From there on it was just great fun. Some of the track was now completely underwater, and we whooped through it while I tried to ignore the fact that I was a bit rusty after 40 years off a bike.

Then we waded in water so black with tannin that you couldn't see into it. I looked for fresh *Engaeus* burrows as an excuse, and I saw a few, but they were burrowing into root masses impossible to dig into. The surrounding *Melaleuca* became so thick we actually found out why we had to stick to the cutting grass – Unfortunately!

Wading almost constantly in water up to knee deep, we finally stopped in an area of large *Eucalyptus brookeriana* and ate lunch. We decided we needed to turn back, and after agreeing where East lay, we headed straight for the track that way. Most of an hour later we hit some very thick scrub with Steve breaking track. He exhaustedly turned this job to me, and 10 metres later I broke onto the track with a laugh. Then we squelchingly rode back arriving expended and exhilarated.

Steve aka 'Swampy'

Book Review by Jim Nelson

Australia's heathlands are enormously rich in species. The ecological study of this richness that almost rivals tropical rainforests gives fascinating insights into how plants fill niches and develop communities in impoverished environments. **The Disappearing Heath Revisited** by J.B. Kirkpatrick and S. Harris provides easy to understand explanations of the history, ecology and community types in the first four chapters. Chapter five addresses the flora and covers both rare and common species and is accompanied by Georgina Davis' line drawings. Chapter six gets down to the problem – survival. Conservation and management problems are aired. There are four large appendices with maps of heath areas along with frequencies of species occurrences within 74 heath communities. Publisher: the Tasmanian Environment Centre, Hobart, $25.