CNFN

Central North Field Naturalists

the Natural Observer

Patron - Dennis Morris

MAY JUNE 1999

President - *Ron Nagorcka*, ph. 6396 1380 Email - ron_sarah@vision.net.au

Vice President - *Martyn Ewings*, ph. 6368 1416

Honorary Secretary. - *Jim Nelson*, ph. 6368 1313 68 Dynans Br. Rd. Weegena 7304, Email - nelsjc@hotmail.com

Editor - *Bruce Worth*, ph. 6368 1387 Email - jworth@vision.net.au

NATURAL EVENTS

May 21, Somerset Lecture (page 12)

June 6, Sunday 10 am. Meet at Weymouth. Sue will meet us at the 1st right hand turn in the village. We hope to cross the river this time to compare vegetation on the other side which Sue says is different. Bring lunch and usual winter gear, and gumboots may be useful. We will also inspect Sue's new house while we have a cuppa.

July 4, Sunday 10 am. Weegena. A warm day at Jim Nelson's workshop where we will inspect the CNFN herbarium and carry out plant studies and discussions. Beginning and advanced plant enthusiasts welcome, and if you are neither, come along and see why you should be. Bring any plants you are interested in knowing about. Ph. Jim at 6368 1313 for directions.

August 1, Sunday 10 am. Meet in Lilydale on Main St. Local burrowing crayfish and other features of the area.

PACIFIC GOLDEN PLOVER–THE GREAT MIGRATOR

By Jim Hunter

The Pacific Golden Plover (*Pluvialis fulva*) is one of a number of shorebirds that breed on the Arctic tundra during the northern hemisphere summer, then migrate to Australia to spend the

(northern) winter at favoured spots on our coasts and estuaries. Its breeding range extends from north west Alaska to the Yamal Peninsula in Siberia.

Not closely related to any of our resident plovers, this is a beautiful bird in breeding plumage–something seen here only in some individuals when they first arrive in Sept/Oct and late in March just before migrating north. Smaller than the spur winged plover, it is slender and long legged, black below from face to tail, followed by a white strip of varying thickness from forehead to undertail. Wings, back and top of head are striking golden spangling on black.

However, for most of their stay here they are in winter dress–the black and white disappear and the gold becomes less prominent. Quite a nondescript yellow brown at a distance but still very attractive when examined closely.

In our area they occur mainly on intertidal mud flats such as those at Georgetown feeding at low tide on small molluscs, marine organisms and insects. They will also forage in short grass paddocks such as those behind the beach at Wesley Vale. In Fiji I have seen them in paddocks and playing-fields well inland. On their northern breeding grounds they also fatten on berries before migrating.

This bird is one of the great migrants. Outside the breeding season they scatter among the islands of the south Pacific, from Hawaii to the remote atolls of French Polynesia and the Pitcairn group, west to east Africa and Madagascar. Some birds from Siberia enter northern Australia but most of these winter from SE Asia to Africa. The major population here occurs from SE Qld. to Tasmania and probably consist of birds coming in from the Pacific Islands. The only band recovery I know of was of an American bird in NSW.

The Alaskan birds make the (equal) longest flight over water of any land bird (plovers cannot land on the sea) direct to Hawaii, about 4500 km. Bristle-thighed curlews and wandering tattlers also make this flight. Amazing as this flight is, it has recently been discovered that some, if not most of these 3 species are overflying or by-passing Hawaii and proceeding straight on to the reefs and atolls further south–single flights of 7500 km plus.

Studies done on golden plover on Wake Island to the south west of Hawaii 30 years ago gave a good idea of their potential. Long distance migrants greatly increase their fat reserves before setting out–this is their aviation fuel. The reserves of golden

plover before setting out were found to be adequate for 9000 km of sustained speeds of 90-100 km per hour. It is also probable that they only set out on a favourable wind and weather pattern, as shorebirds heading north out of Australia are known to do.

This is not one of our more abundant shorebirds and numbers vary considerably from year to year. At Wesley Vale, the site where I have watched them most frequently, there were more than 50 in 1987, descending to none in the early '90's. Recent years have seen a slow increase with up to 10 present this year at times. Australia as a whole probably hosts 4-5000 per year, Tasmania 2-300.

The number of tundra nesting shorebirds, particularly juveniles, arriving here is thought to be closely tied to the lemming cycle on their nesting grounds. Lemming and their predators build up over a few years, then the lemming population crashes and the Arctic foxes and other predators have to switch to a diet of eggs and chicks. Good lemming years equal good shorebird years.

The areas frequented by most of the golden plovers in Australia corresponds with the area of densest human population, so their continued presence will depend on sympathetic management of the relatively few sites they use.

References

Berger, A. 1972 **Hawaiian Birdlife**, Univ. of Hawaii
Blakers M., Davies S.J.J.F., Reilly P.N. 1984 **The Atlas of Australian Birds**, RAOU
Hayman, P., Marchant, Prater 1986 **Shorebirds: an identification Guide**, Croom Helm
Lane, B.1987 **Shorebirds in Australia**, Nelson
Minton, C. Rogers, D. Weston, M.: "Catching up with *Australian Birds in Siberia*" Geo Vol 17 #5

Stepping on Snakes

by Jim Nelson

One of the things I often warn people about is the possibility of stepping on snakes, particularly copperheads. On several occasions I have come close to stepping on copperheads, with my next step set to come down on a snake sleeping in dense grass and only partly visible. I usually comment that this is perhaps about the only way you could get a copperhead to bite you, because I have kept them in captivity, removed them from people's houses and caught them in the wild on a number of occasions, and I have never seen them display an ounce of aggression. However, snakes can be as individual as any other animal, so I wouldn't be all that surprised to see an exception.

(Apparently Ian Norton met up with a very fierce copperhead on Christmas Island off King Is., where they have a quite different reputation.) But my experience so far is that copperheads in Tassie are not aggressive, and the one instance where I saw one striking was while it was being severely provoked, and even then it was only bluff

striking with its mouth closed. I once had a copperhead give birth in captivity (I was keeping a snake which needed relocating while I was getting around to finding somewhere to release it) and the young snakes used this same bluff striking in response to disturbance.

Anyway, this year I was able to add further to my experience with copperheads because I finally managed to step on one. It happened easily enough, even though I am normally very aware of copperheads on that part of my land. I was out watering a few trees that I had planted a few weeks earlier, and I stopped to admire one of my vigorous stringybarks while giving it a bit of liquid fertiliser. Having finished, I pivoted from facing the tree and stepped out with my left foot, and just as I put it down I saw the snake lying beneath it. I actually felt the snake writhe beneath my sole before I levitated as simultaneously the snake shot out of the thick grass and away from me. It would have been interesting to see which of us achieved the greatest increase of heart rate, and I'm still uncertain how I instantaneously ended up about 2 metres away from the spot where I put my foot down.

All this just increases my warning about copperheads being entirely blissed-out creatures when they are lying in grass regulating their body temperature and digesting their latest meal, because their real agenda is now clear. It is obvious that copperheads are just trying to get the 'two-legged menace' to step on them and die of heart failure. It almost worked!

Copperheads (*Austrelaps superbus*)

Copperheads are a hardy, cool adapted snake that can sometimes even be found out sunning in the dead of winter in Tasmania, although generally they find burrows to see out the winter in torpor. They are considered dangerous with a very toxic venom, but they apparently are not easily aroused, and copperhead bites are rare. In appearance they have a narrow head attached to a thick, muscular body. They may be grey, coppery brown, chocolate or black, and they may or may not have orange stripes along their sides. Their narrow heads with white striped upper lips along with a distinctly matt appearance usually sort them out from our other dangerous snake in Tasmania, the tiger snake. Tiger snakes come in a variety of colours, may or may not have banded stripes, are broad-headed and usually quite glossy. Bites from either snake are to be taken seriously, and Tiger snake antivenom is used for both. Our third Tasmanian snake is the white-lipped snake, (often erroneously called a whip snake) which has venom equivalent to a wasp sting, and isn't considered dangerous.

The Giant Humbug and its Predators

by John Hayward

An anthropologist, whose name I have forgotten, once suggested that the hypertrophy of the human brain eventuated not from anything as mundane as an opposable thumb, but from the necessity of deceiving more physically gifted predators and prey. Being hollow, deceptions need continual reinvention as they are exposed. Thus it was interesting to watch the adaptive behavior of the National Association of Forest Industries (NAFI) when the book

Forest-Friendly Building Timbers (FFBT) came out recently.

Innocuous though it may look, FFBT seemed to terrify the lumbering corporate leviathans of genus NAFI. Most of their reaction seemed to be directed at two areas in the book, "Ten Reasons To Use Plantation Timber" and "Ten Common Myths Dispelled". None of the reasons or dispelled myths are anything new: the percentage of native forest timber that ends up as chips, the amount of forest being lost, the extinction rates, the furphy of "regeneration", etc. So why their sudden potency against NAFI's thick protective carapace of hogwash? Why the crudely counterproductive effort to suppress the book? Why the stupid and probably illegal attempt to intimidate BBC Hardware?

I suspect that the effect may be multi-factoral. A likely cause is that all the reasons and myths were not only meticulously referenced, but often attributed to the sort of scientific and governmental authority that the NAFI types are forever trying to glue onto their carapaces. Statements to which NAFI objected in their injunction threat originated in Establishment bods such as the Commonwealth Bureau Of Rural Affairs and the Victorian Government. These things hurt when your own side is reduced to citing such authorities as the "*Australian Bureau of Statistics- Australian Forest Products, June 1998*", a non-existent publication, as Forestry Tasmania did in its almost completely fallacious submission to the recent Senate inquiry into the RFAs. NAFI depends heavily on seeming to be on the side of hard-headed science as opposed to the woolly romanticism of their foes. FFBT was turning the table.

Another candidate is the fact that FFBT was being sold through BBC Hardware. One of the most strenuously cultivated of the NAFI myths is that export woodchipping is an integral part of the folk culture. Witness North Forest's "Heritage Trail" blarney at Agfest, and their presence at most every "traditional" event on the redneck bank of the mainstream. Hardware stores, rodeos, fairs and the like are supposed to be their turf, even if the image is concocted in the boardroom. Whip off the checked shirt and you find the expensive suit of the transnational. In evolutionary terms, NAFI seems to have hit a brick wall. It is not easy to pass off a dinosaur as a sugar glider with a disguise concocted almost entirely from balderdash, even in an environment where almost all the media is controlled by fellow dinosaurs. FFBT must have seemed like a detection kit cheap and user-friendly enough for anyone. NAFI's response was brutish – size, force, and threat. The mammals are still in there, however. FFBT was last seen at #9 on the best-seller list, and in a category for which NAFI has never qualified, Non-Fiction.

Welcome Hangout!

by Martyn Ewings

Living in Tassie with its seasonal climate of winter, winter, summer helps you appreciate the rigours that fellow animals endure just to live here. That's why I marvel at the migratory Welcome Swallows' (*Hirundo neoxena)* return each spring, after wintering in some warm, northern flying-insect haven. No sooner do they arrive at our home and along comes spring's bad weather. This aids in the sourcing of mud needed to repair old, or build new nests. Preparation is paramount if pairs are to rear between 1-3 batches of chicks over Tasmania's summer flying insect bounty. This autumn I noticed the 4 nesting pairs fared very well over summer with 2 hatchings from some pairs and around 15 chicks taking to the skies.

These birds are true masters of flight, as was illustrated to me one afternoon when a cheeky swallow darted into our house through an open door, which the wind then blew shut behind it. As I went to reopen the door, I was treated to a marvellous aerobatic display. In our small lounge room, I watched this nimble swallow duck, turn back on itself, and narrowly dodge various obstacles including ornaments, light fittings and exposed beams with incredible gracefulness. Being so close I was amazed to see how slow the wing movements were, yet they propelled it at a pace which my head had trouble following. This great spectacle eventually came to an end when I finally reopened the door, allowing a flying insects worst nightmare out. With such a seemingly efficient flying technique and a flight adapted body they can surely be excused for looking awkward on the ground as they do when they occasionally sit on the ground.

This season I also observed another interesting thing about the Welcome Swallows for the first time. After the finish of the nesting season, when all surviving juveniles were in flight, I noticed between 50 and 90 welcome swallows gathering on our hydro wires. This many swallows perched side by side on 10 metres of wire is an impressive sight. I noted that unlike the typical behaviour I've seen with other groups of birds such as parrots, this group of welcome swallows did not chatter or seem to interact with one another in any obvious manner. I therefore pondered the reason as to why the local community of welcome swallows might gather in such numbers. I soon began to speculate that they might gather together in preparation for their up and coming migration north, a theory which has been confirmed by a local birdo. Being of small size and weight Welcome Swallows would find migration quite arduous and safety in numbers may simply equate to better survival odds for such a journey?

Having lived at this address for 5 years now and only been harassed by mosquitoes once. I honestly feel the thriving population of *Hirundo neoxena* has something to do with this! So come next spring they will be very welcome!

Dilapidated Longicorn

Oh black and purple Longicorn
so soft from mountain mist
A specimen which will not scorn
the entomologist.

Translucent wings, not ever unfurled —
Did you forget why you came in this world?
Weren't you grubbing for years in some tree,
hoping to tunnel your way out and SEE?
And weren't you — safe, in your cocoon —
dreaming of minnows, myrtles and moon?

Or is it true: your sole purpose was
to be found by me, on that mat of moss?
And that I handed you over to Jim
and made this rhyme or whimsical hymn?

I wonder at wisdom, and wisdom there'll be...
Were you a little afraid like me?
What keeps us from soaring, what trepidation?
We spend our life in preparation,
and then we move on. We don't know where...
I'm sure we're related!
(And someone takes care!)

by Carla Schriever

RFA AND THE CRAY

by Jim Nelson

The Recovery Plan for the giant freshwater crayfish, *Astacopsis gouldi*, is back on track with the Recovery Team meeting once again for the purpose of advancing the plan this time to the point of endorsement by the state and adoption by the commonwealth as is required under the Regional Forest Agreement (RFA). The RFA has been very long on providing the forest industry with almost everything it wants, while the conservation objectives have been slow to be realised. The view by conservationists that the RFA is little more than a huge sham in terms of delivering meaningful conservation objectives is an argument that is largely true but is already lost, and is not the point of this discussion. What is at stake now is for the conservation objectives that are contained in the RFA to be advanced and realised.

In page 1 of the RFA the State and the Commonwealth have specifically agreed to "*provide for the ecologically sustainable management and use of forests in Tasmania*".

Granted, the forest industry tries to promote the idea that 'ecologically sustainable' means keeping foresters in the lifestyle to which they are accustomed; while the biologists in Forestry Tasmania seem to exist largely to continually say that there is no science to prove beyond all doubt that the forest practices in Tasmania are not ecologically sustainable. Even when researchers have successfully listed species as threatened, such as *A. gouldi*, with forestry activities clearly named as a threatening process, there is total denial by Forestry Tasmania. Meanwhile, their own science lacks much of the rigour that one might expect from these iconoclasts of scientific certainty. So, we will not be able to sit around and wait for forestry activities to become ecologically sustainable in cases such as *A. gouldi*. We are going to have to be incredibly persistent in presenting the body of science that supports our case, and we will need to be willing to expose any obstructionist tactics or cynical dirty tricks masquerading as science.

A. gouldi is a species that our group has worked long and hard for to achieve its secure future. Why? Well, the standard answer is that it is the largest freshwater invertebrate in the world, it in an endemic animal that occurs only in the North of Tasmania and we should be proud and take a duty of care for this spectacular species. This is all true and has motivated our group to do work that has contributed to the listing of the animal as a threatened species, that has helped stopped fishing and that has led to much community awareness and appreciation of the animal. But the strongest motivation for some of us has come from the close contact we have had with the animal over the years, so that the majesty of this creature has worked its way on us. This aesthetic and emotional response to a fellow creature (that happily

thrived for thousands of years in the forests of northern Tasmania until our greedy kind came along) is often sneered at by "objective" scientists, but helps sustain us through the very hard slog that is involved.

Most of the hard slog has had to do with dealing with government agencies. Many of the bureaucrats in these agencies have made a career out of telling even relatively informed members of the public that we don't know what we're talking about, or that we're well meaning but misguided, or that we don't really understand the ecology of the animal and that everything is really all right, etc. When we have persisted by carrying out studies, gathering information from experts and making press statements, they have become nasty and presented their political bosses to counter our statements. Our responses to bureaucratic obfuscation, obstruction, dirty tricks, lies and their constant inadequacies and even creative ineptness have over the years given some of us reputations as "head kickers". We have learned to wear that metaphorical label, and occasionally even dreamed.....well, back to reality.

The current battle lines that are being drawn have to do with stream buffers for *A. gouldi*. Bill Thomas' article in our last newsletter pointed out the research that supports stream buffers on small streams, both as good ecology and particularly as it might relate to the crayfish. In spite of this, we are still getting the same line that there is no science to support the stream buffers that have been recommended in the Recovery Plan. In fact, where there is absolutely no science is in the Forest Practices Code's recommendations for stream buffers. Even their definitions of the four classes of streams are simply their own artificial construct, while their buffer widths are no more than numbers that have been pulled out of the air to maximise wood production while sounding good enough. In fact, current science indicates they have their numbers very wrong, and that the small streams which they give little or no protection should in fact have the most protection if we are to maintain the integrity of the biological processes of our streams. The RFA repeatedly makes the point that it is based on science, and even though the measurements in ecology can always be argued, we have shown them a body of evidence while they have shown us nothing scientific to support their position of minimal buffers.

current science indicates they have their numbers very wrong,

Instead the furphy that has been dreamed up to muddy the waters (so to speak) is the question of whether juvenile *A. gouldi* use class 4 streams (less than 50 ha catchment). The obvious answer is that it depends on the class 4 stream, and if a particular stream has something to offer the juvenile crayfish, then they will opportunistically use it. The fairly transparent reason for wanting to go down this meaningless track is so that any stream that can be declared as one

where juvenile *A. gouldi* have not been found by Forestry Tasmania will not be prescribed for any meaningful buffers. The simple reason that this is a furphy is that class 4 streams are the life blood of class 3 streams where juvenile *A. gouldi* habitat is significant, and even if no juveniles ever venture into a class 4 stream, its critical biological processes must be protected.

Forestry's Class 4 streams are something of a dog's breakfast (a little of everything and hard to describe) in that they have little in common except that they have catchments of less than 50 ha. They can occur as headwaters or as tributaries downstream, they can be raging torrents or ephemeral drainage channels, they can occur on steep country or on flat land, etc. The main thing they all have in common is that they provide valuable input to stream systems, and altering that input alters stream processes.

A major ecological strategy for dealing with sensitive species and poorly understood processes and life histories is to adopt the Precautionary Principle. I always liken this to the Buddhist ideal to "try to do no harm". When faced with conserving a species that has spent many thousands of years as a forest dweller, the obvious expression of the Precautionary Principle would be not to remove the forest. There undoubetedly should at least be a reserve of one entire catchment where this strategy is put into place for *A. gouldi*. But given that industrial forest removal is the political reality we must deal with, we must at least insist on the principle of science that is so loudly touted by Forestry Tasmania and which is the stated basis of RFA decisions. This science indicates that the current Recovery Plan recommendation of 30 metre buffers on class 4 streams would be a minimum. It is certainly stretching the Precautionary Principle to accept the minimum, but there is no way with any conscience we can accept anything less.

It should be remembered that there were supposed to be environmental trade-offs for the 'certainty' provided to the forestry industry. 'Certainty' was also promised in the RFA for conservation objectives, and *A. gouldi* was named as a 'priority species'.

One last point to consider is whether this one species which is lucky enough to be conspicuous is worth all the trouble. One possible answer to this is that we are not just talking about one species, even though *A. gouldi* has to be the species addressed in the Recovery Plan. *A. gouldi* is in fact a 'flagship' species whose habitat protection will benefit untold numbers of other species. But looking after our giant crayfish will also benefit our own species, not only through healthier waterways, but through offering us and generations to follow the opportunity to admire and marvel at a spectacular fellow creature with which we share this rich planet. Along the way we might even learn to admire some of the less spectacular ones that will also be conserved through looking after habitat.

Plant Page

This past year we have added a number of introduced plants to the club's herbarium. In the past we have been somewhat reluctant to spend much time on introduced plants, I guess because there is so much of interest to be learned about our native flora that introduced plants seemed a waste of time as "only weeds". However, because there are native plants that are closely related to some of the introduced plants, we made a decision this year to collect these weeds as herbarium samples to help sort out differences.

One plant I became familiar with during my first year in Tasmania was black nightshade (*Solanum nigrum* group). I was told by the locals that this was called deadly nightshade and was highly poisonous. I grew up in the US where we had a different species of nightshade that was poisonous and was also known locally as deadly nightshade, but which had succulent red berries (which we were warned against as children), and this plant was also sometimes called bittersweet (*Solanum dulcamara*). This plant too is introduced in Tasmania and is a weed of marginal places.

The Solanaceae family is an interesting one and contains many important edible plants such as potato, tomato, eggplant, capsicum. The family also contains many plants with strong alkaloids which can be poisonous but also in some cases can be of important medicinal value. Tobacco (*Nicotiana tabacum*) is probably our most unfortunate member of this family, but I won't invite legal action by claiming that it has addicted and killed millions.

Anyway, back to black nightshade. A couple of years ago Jim Hunter was visiting our place and noticed some of the black berries of this plant near my workshop. He said that his wife, Mariamma, is very fond of them and that in Fiji they are prized for eating. I expressed a degree of disbelief, but Jim insisted they were edible. This sent me to the CNFN library where we have a book called **Toxic Plants & Animals, A Guide For Australia**, by Covacevich, Davie & Pearn, Qld. Museum 1987; where I discovered: "All green plant parts including the unripe fruits contain poisonous compounds. Symptoms are those of gastro-intestinal irritation. The ripe fruits are eaten without any ill effects". So, for anyone else out there who has been misled on this plant I offer the following recipe from the Botany Club at the University of Queensland Botany Dept. Please sue them if it goes wrong! (by jim)

Blackberry nightshade jam

2 cups fruit
1 1/2 cups water
Juice of 1 lemon
1 1/3 cups sugar
Wash berries and remove stalks.
Warning: Do not use unripe berries.
Boil till jam sets when tested. (This jam makes excellent tart filling.)
Note: While boiling, any slightly unripe fruit will turn pale green or pink and rise to the surface. These should be picked out and discarded.

Don't Miss This One!!!

SOMERSET LECTURE

May 21, 7.30 pm
Burnie TAFE Auditorium

"Dinosaurs in Long Underwear"

Professor Pat Vickers-Rich*
of Monash University
(Chair in Palaeontology and Director of the Monash Science Centre)

*"....Her passion is communicating to the public, the relevance and excitement of scientific investigation..." (Burnie Field Naturalist Club *NEWSLETTER*)

EXPRESSIONS OF INTEREST ARE INVITED

Across the southern slopes of Black Sugarloaf there are 50 ha of dense mixed eucalypt forest which have been for sale for some time. Bird Lovers of Black Sugarloaf invite offers of finance so that this property can be communally purchased and managed for its permanent preservation. If you want more information or wish to inspect the area, contact Ron & Sarah.

Phone 6396 1380
Email ron_sarah@vision.net.au