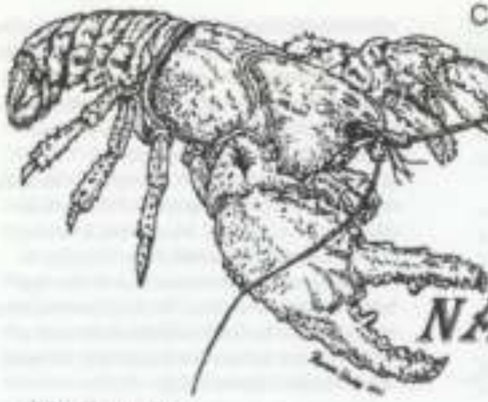
Central North Field Naturalists Inc

CNFN

the
NATURAL NEWS



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Program and Events

March 4-6 Field Naturalist Federation Weekend, hosted by Burnie Club. Theme: Discovering Wynyard. Venue: Kaloma Scout Camp 4 km off Bass Hwy - turn left 9 km past Somerset coming from the east. Arrive on 4th from 5pm onwards. Sat 5th, 9:30am Inglis River loop walk near Wynyard. 12:30 pm Fossigl Bluff geological features. 4pm Federation meeting. 6pm Federation dinner $15 head. Booking: 6425 3572. Sunday morning March 6, Federation morning walk around Table Cape area.

March 6, 11:30 CNFN Penguin Tidepools (see summer issue for details.)

April 3, Birralee 9:30 Meet Ron & Sarah at the bottom of their track at the end of Denmans Road for a look at their covenanted block of land, and a social lunch in their garden.

May 8, Liffey Bush Heritage Block 9:30 Meet at the Liffey Falls bottom carpark.

June 5, Latrobe 9:30 Meet at Bell's Parade at the west end of town near the Mersey River. We will travel to expore a forest area south of the town.

July 3, 9:30 Narawntapu NP. Meet in carpark. All cars must have National Park passes.

"Heavenly Birds"

by Sarah Lloyd

While Ron and I are not often challenged on our ability to identify bush and forest birds, we are not renowned for our shorebird identification skills. Thus, with the annual Birds Tasmania wader bird count in the northwest approaching and a request for another CNFN trip to Georgetown, several enthusiasts set off for the mudflats to practice identifying this tricky group of birds.

Unfortunately our local expert was unable to join us, so the first bird we saw prompted much discussion. And it took a great deal of persuasion to assure everyone that the bird's bill was long enough, decurved (or was it recurved?) enough, and it had a white enough underbelly for it to be positively identified as a curlew sandpiper. Doubters among us still weren't convinced, and nobody brought the necessary instruments for measuring the curvature of beaks.

The next challenge was to determine whether those distant blobs of greyish brown were rocks or birds. Fortunately the spotting scope, an indispensable piece of equipment for wader watching, was successfully focussed (despite the roaring gale) on the blobs, which turned out to be Godwits.

An abundance of marine invertebrates inhabit the estuarine mudflats at Georgetown. These attract large numbers of Palearctic waders which, in turn, attract wader watchers. Over the past few years I have visited the area on several occasions and although I have been delighted to see beautiful, long-legged elegant Greenshanks, Golden Plovers in cryptic plumage, rotund Turnstones with bright red legs and small

beach runners of various descriptions, it was difficult to hide my disappointment that Godwits had thus far eluded me. The experienced watchers were convinced I was jinxed, they never see Godwits when I'm there. Even a trip to Hobart, ostensibly to assist with the southern wader count (actually a ploy to see Godwits) was unsatisfactory, as my guide assured me that I would just have to take on faith his claim that the distant shapes were Godwits. I began to suspect they were mythical birds – after all, why would you call a bird a Godwit?

Persistence paid off and in due course a trip to Georgetown was fruitful. Seeking protection from extremely strong winds behind a feeble bush was a bunch of hunched Godwits, barely a movement, bills under wings.

Things got even better. A late summer visit, just before the birds returned to the northern hemisphere, I saw Godwits aglow in their spectacular brick red breeding plumage, their long upswept bicoloured bills fully exposed.

But the best was yet to come. Although now satisfied that Godwits were real, they had hitherto always adopted (at least in my presence) a statuesque appearance. During this latest excursion one or two were moving about, several were plunging their 8 cm bills deep into sand, and some were flying overhead. I now believe in Godwits.

In every facet of their lives migratory waders are a remarkable group of birds. Some weigh barely 30 grams yet they transit the globe twice every year. At 350 grams, Godwits are medium sized waders and for years it was believed that the 100,000 or so birds that spend summer in Australia and New Zealand were from Asia. It is now known that our summer visitors are American birds that breed in the coastal wet meadows of the Yukon Delta or the gently rolling montane areas of NW Alaska. (Hunter 2001)

Around mid May when the snow starts melting and there is a dramatic increase in insect activity, Godwits arrive at their breeding grounds. They complete egg laying and incubation in about three weeks and within days of hatching the chicks and adults traverse several hundred meters of tundra to congregate atop mountain ridges with other broods. Crèches of chicks are guarded by the few adults who are yet to depart for the coast. By early August they all move coastward to feed on the cornucopia of marine invertebrates, mostly small clams, which inhabit the intertidal mudflats of the Yukon Delta and Alaskan Peninsula. For the two months prior to migration Godwits double their body weight while internal organs such as gut, kidney and liver gradually atrophy to allow for the storage of fat. After undergoing these extraordinary physiological changes, the birds are capable of flying non stop the 11,000 km from Alaska to New Zealand. More often, however, they do it in stages and take about five days to make the journey, assisted, at least for the first 3,000 km, by the winds of the Aleutian storm front which form in the Gulf of Alaska at the time of their departure and provide a southerly tail wind of 60-90 kph. (Hunter 2001)

Migratory waders have legs and bills of various lengths which allow them to exploit different areas of the shore and to forage for invertebrates at different depths. Tiny Red-necked Stints, for example, which arrive in Tasmania in their tens of thousands, have short stubby bills that probe the ground repeatedly. The long decurved bills of Eastern Curlews retrieve worms, crustaceans and molluscs beyond the reach of smaller birds. Bill tips are equipped with extremely sensitive nerve endings which enable birds to detect food when probing blindly into wet mud.

For us forest dwellers who don't see waders regularly, their identification is a challenge for a number of reasons. For a start, their names are extremely deceptive. Whilst in Australia in their non-breeding plumage Ruddy Turnstones are rarely ruddy, Double-banded Plovers have a faint one – 1 ½ if you're lucky, Red-necked Stints don't have red necks, nor are Red Knots red. Secondly, most belong to the sandpiper family (Scolopacidae) and sometimes only minute differences in physical characteristics separate the species. They congregate and feed in large mixed species flocks and don't have the decency to stand still for a minute or in a line in order of diminishing size. Although renowned for their dramatic aerial displays, percussive sounds and loud vocalizations during the breeding season, in non-breeding mode they seldom call. When disturbed they emit a startled cry, and by the time you have checked the books for all the relevant diagnostic features, they have flown away.

To be a good wader watcher - to be good at anything - takes countless hours of practice. I well recall one trip to Georgetown when, after spending half an hour trying to decide whether the shanks on a bird were the right shade for a Greenshank,

up drove one of the leading shorebird watchers in the country, Mark Barter. He immediately confirmed identification of the Greenshank, spotted Sharp-tailed Sandpipers on a distant shore (which I could barely detect) scanned the area for other birds (variety is the spice of life for wader watchers) then left. When pondering the reason for his fascination with these birds he's been studying for over 50 years, he writes:

"...they are such free spirits living in some of the most beautiful places on earth; moving endlessly to feed and roost as the moon dictates the ebb and flow of the tide, and migrating from one side of the earth to the other to breed in harmony with the sun. Heavenly birds in heavenly places!"

Over 5 million waders travel north and south via the East Asian-Australasian Flyway. The 12,000 km route encompasses over 20 countries and extends from the high arctic regions of China, Mongolia, Siberia and Alaska, through east and south-east Asia to its most southerly tip in Tasmania. Along with 2 million resident shorebirds, the 5 million migrants share the area with 45% of the world's human population in some of the fastest developing countries on earth. Pollution, reclamation and other factors threaten over 80% of the wetlands.

The top left corner of the island state is like nowhere else in Tasmania. Approximately 100 square km of mudflats exposed at low tide attract tens of thousands of birds. When the incoming tide makes feeding impossible the birds assemble on higher ground to rest and digest their food.

Members of Birds Tasmania's Shorebird Study Group have been monitoring migratory waders in the state for over thirty years. However, although reported to be an important site in 1955, it wasn't until 1983 that the significance of the far northwest was confirmed. Since then, there have been annual and now biannual counts to monitor summer migrants and over wintering birds. This year, because of the inconvenient timing of the extreme high tide in early 2005 (it falls on a working day), two summer counts have been arranged for this season. The first count, in early December, saw twenty volunteers assigned to areas depending on their expertise and experience. Some would see many thousands of birds, Ron and I might see hundreds.

We both confessed to feeling nervous as we crossed the mudflats to Montagu Island, low-lying land awash at high tide. Fortunately the tide was neap, the strong easterly winds that had been blowing for days abated and morning drizzle cleared to a sunny afternoon. We headed for the southeast shore, the only area (or so we were told) that stays above the water. But five pelicans had got there first and, after a brief discussion about ethical birdwatching, we decided that they *shouldn't* be disturbed.

With rising tepid waters gently lapping at our feet, and an hour or more to wait before the "official" count began, we started exploring this ecological wonderland. The three-note plaintive calls of Little Grass Birds emanated from low shrubby bushes that interspersed the tussock grass of tundra vegetation; small Boronia (*Boronia nana*) carpeted the ground, their countless tiny flowers dislodged by flowing sea. Crab holes pockmarked sandy soils.

We marvelled at the plants' ability to adapt to inundation, decided (with relief) that the tidal activity would render the area unsuitable for snakes and confidently wandered through the ankle deep water to the opposite shore, sometimes taking lengthy detours to avoid the channels that criscrossed the island.

On the northern shore sunlight caught the underbelly white of flying Red-necked Stints, which, as if as one, swooped, circled and manoeuvred in formation. Sometimes, as if by magic, they disappeared from view, only reappearing when light reflected off their wheeling bodies. Eventually they settled on the beach.

Although our contribution was relatively minor (we counted 304 of the 14, 684 shorebirds seen during the survey) we'd had a wonderful day watching beautiful birds in this remote and heavenly place.

Footnote: The name Godwit comes from the Anglo Saxon god *'good' and* witha *'animal': the plump birds were highly regarded for their culinary uses.*

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Little Wattlebirds (a.k.a. the Garden Bully

by Paul Hydes

Agonistic behaviour by wattlebirds is well documented in the literature, particularly when nesting, at sources of food and when predators are present. "Bold", "aggressive" and "pubnacious" are terms used in this context and other wattlebirds as well as smaller and larger species are quoted to be on the receiving end. In some repots, a distinction is made between relatively energy efficient run chases lasting a few seconds and energy intensive flight chases o longer duration. While other honeyeaters and a range of potential avian predators are identified in these observations, there are few references to non-bird species.

Little Wattlebirds have been recorded to "vicinusly attack cats" (1,2), and a Red Wattlebird was observed attacking a Ringtail possum as well as birds which were not potential competitors or predators (3). The behavior of our local Little Wattlebirds

therefore seems to be unusual in that blue tongue lizards and a brown bandicoot have also been targets. The bandicoot was near a prostrate *Banksia blechnifolia*, used as a food source by the Little Wattlebird and was subject to a flying attack as it ran around the plant, which seems to be compatible with displacement of a food competitor. The behaviour with the lizards however was totally different. In one case, an adult bird hopped after the lizard, pecking at its tail as the lizard moved at pace across a stretch of lawn, heading for the shelter of a shrub bed. In two other cases, the lizards moved normally while the wattlebird gave "clack" alarm calls in between periods where the bird perched low to the ground, within 20-50cm of the lizard and sufficiently distracted to allow close approach by humans. In one case it perched on the door sill of the shed while the lizard moved along the side of the shed below it as I worked on a bench a metre or so away.

The behaviour with the lizards is not unique to the Little Wattlebird territories in our garden as two neighbours several hundred metres away have observed similar attacks on blue tongue lizards exposed while crossing driveways. The wattle birds in these cases didn't have it all their own way as the lizards were seen to rear up on their forelegs and arch their necks around towards the offending bird (4). Given that at least two generations of blue tongues live in our garden and basking blue tongues are a daily event in summer, it is perhaps surprising that more attacks do not occur. It may be a case of "out of sight, out of mind" which could also explain the immunity to date of a basking copperhead, but our highly visible cat has never been molested either (by a wattlebird that is, but basking on the lawn recently, its ego was bruised when a pair of dragonflies collided with its head!) If anyone else has seen similar behaviour by wattlebirds or variations on this theme, I would be interested to hear from them.

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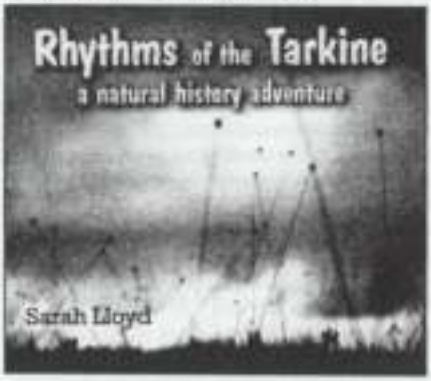
REVIEW: Rhythms of the Tarkine, a natural history adventure

Rhythms of the Tarkine is a unique production by Ron Nagorcka and Sarah Lloyd. It records in both words and sounds (98 page book and accompanying CD) their experiences visiting diverse natural areas within what has become known as the Tarkine. The obvious purpose is to communicate their passion for this area which is threatened with enormous change from industrial forestry, and to bring to the listener and reader a greater sense of what might become greatly diminished or lost.

The Tarkine area located in Tasmania's northwest contains the largest remaining area of cool temperate rainforest in Australia. The campaign to retain the area in its natural state has focused on grand vistas, giant epiphyte-encrusted myrtles, beautiful birds, cuddly animals, stunning rivers and inevitably the contrast of the fire-blackened clearfell areas. These are the images that impact on urban consciousness, thus hoping to win votes to the cause.

Ron and Sarah, however, have paid a number of visits to various areas of the Tarkine observing not only the obvious, but focusing on the diversity of the intimate, the discreet, the feathered, the scaled, the carapaced, the slimy etc. – all those largely ignored species that are the real driving forces of natural systems, and therefore capture the attention and imagination of field naturalists. The result is a sharing of their natural history adventure with enthusiasm, sensitivity and insight. Their passion for what they experienced is infectious, and is translated into a finished product of the highest quality.

The book begins with a map of the area marking the 11 sites that were explored, and the text tells the story of each with Sarah's keen eye for detail, and her sense of the importance and interrelatedness of species. There is wide ranging discussion, from soil organisms to Gondwanan connections, from sinkholes to cobweb nest lining. Acute observations are made for the purpose of expansion, or sometimes just quiet reflection and contemplation. It is an infectious journey that inspires us to follow in their footsteps.



The CD contains the sounds of the areas visited, with superb recordings of bird songs, frog calls, devil growls and even invertebrate sounds. The tracks are all numbered and highlighted in the text for easy reference when a bird or a sound is mentioned. It serves as a wonderful learning reference for a number of bird calls including many of the vocal variations of species.

Interspersed with the recorded sounds of the Tarkine are some of Ron's music compositions that relate well to places visited. Ron is a unique composer who writes music based on recorded natural sounds ranging from bird songs to devil growls, from invertebrate gratings to surf sighings. He manipulates these sounds through a keyboard sampler, and uses them in his compositions, often accompanied by his didjeridu playing and by various other musicians. His music is challenging to some, given that it is like no other, but with a little application by the listener, it can reveal an unforgettable and evocative experience from the genius of one of Tasmania's living treasures. Discovering his music is like discovering a new species.

Rhythms of the Tarkine was made possible by the Commonwealth Regional Arts Fund, and by financial assistance from Bio-distributors (Ric and Jo Easton). The production run is not large, and I predict it will become a collector's item of some merit. Available from Petrachs, Fullers, Birchalls and Artifakt Gallery for around $40. May it inspire you as much as it does me. (j.n.)

The Environmental Defenders Office

If you are interested in defending the natural environment, then you may wish to become a member of the Environmental Defenders Office (Tas) Inc., a non-profit legal centre advising on environmental law. The aims of the EDO *are "to protect, conserve and enhance the natural environment through informed and active use of the law and legal systems."* Membership of the EDO helps support this work, and keeps you informed through the EDO Bulletin. The EDO also publishes The Environmental Law Handbook, which is available from the EDO office, Fullers Bookshop, Hobart Bookshop and Petrarchs Bookshop. Contacts:

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TOWARD A PULPWOOD WILDERNESS

by John Hayward

Many people have long been aware that plantation eucalypts are at some remove from their natural forebears. Even the dimmest of us are beginning to notice that the fast-growing domesticated trees have an uncommon thirst for water and low value as timber. The same people may be at least uneasy about their proximity to, and interaction with, native forests. The plantation strains do escape, and also cross pollinate with their wild brethren. Few people, however, seem aware of what is in the forestry pipeline.

There have been some leaks in recent years of the U of Tasmania Cooperative Research Centre for Sustainable Production Forestry's (CRC) work on finding what native browsers can't tolerate in eucalypt leaf chemicals. The CRC is a commercial joint venture involving the university and elements of the logging industry. Eucalypts are already full of deterrents to potential consumers, being heavily laced with secondary leaf metabolites in the form of toxic phenols and terpenes. Native browsers have adapted mightily to cope with them; forestry is now working to raise the palatability bar beyond reach.

Back in October 2004, the CRC announced it had developed a strain of the blue gum (*E. globulus*) a Tasmanian native, which is four times more browser resistant than normal blue gums due to high levels of sideroxylonal. But the war against browsers, insects, and other impediments to industrial efficiency is due for a major escalation.

Last year it was announced that the International Eucalyptus Genome Consortium had been formed to sequence the genome of the blue gum. Among its members are the Swiss- based agri-chemical giant Syngenta, known to some as a manufacturer of Atrazine, and Tassie's own forestry CRC.

A sequenced blue gum genome would open the way to plantation trees with all sorts of commercially desirable traits: rapid growth, high resistance to insects and browsers, perhaps even inhibitors to competing plant growth. Those on the inside have hinted that such a tree could lead to a scaling-down of 1080 use.

These benefits could all be true, but there has been an conspicuous reluctance to acknowledge any potentially calamitous downsides. A predator resistant native tree will inevitably escape from it plantations into native forests. Its resistances would seemingly give it weed-like reproductive qualities, the capacity to pollinate wild eucalypts, and the potential to eventually dominate native forests with a strain largely outside the ecosystem. The impact on browsers, insects, birds, micro-organisms, and other subsidiary beneficiaries of eucalypt forests is probably beyond accurate prediction.

A high metabolite level would make the leaves more flammable, and possibly affect the decomposition of its leaf litter. It should also be remembered that there is no biochemical relationship between leaf palatability and 1080 use; that is an aspect of a primitive political system and its subsidies.

Before the Genome Consortium came to my attention, I had contacted a number of mainland and Tasmanian scientists in relevant disciplines to see if my concerns about a high metabolite plantation cultivar were valid. All confirmed that it was an issue meriting serious risk analysis- except one. This individual blithely suggested that browsers could "... find something else to eat." , while admitting that he was involved in the forestry research.

Will the risks be rigorously assessed? On existing evidence, not bloody likely. An escaped super-weed plantation tree would, like introduced foxes, be totally in the woodchip industry's self-interest, their top and perhaps only priority. Letters I wrote to the Tasmanian Times last October and the Sunday Tasmanian in 2/05 elicited curious responses from CRC spokesman Prof Rod Griffin. While extolling the commercial potential of such a project, he denied any involvement with Syngenta , gene sequencing, or any efforts to produce a higher metabolite gum. He cited Australia's regulatory system as a barrier to the deployment of GE eucalypts here, and claimed the issue of gene drift was being taken "very seriously", as well as the omnipresent but ineffable concept of "sustainable".

Unhappily, another CRC spokesman, Dr Rene Vaillancourt had cheerfully admitted the obvious to the ABC in 22/9/04, that the CRC was involved in the sequencing, stating: "People are tending to sequence plant species... and patent the genes, and we'd like to do it before someone else patents it".

Both Griffin and Vaillancourt concurred in their insistence that their research had no commercial objective. It is left to the reader to ponder when consortia partners as Syngenta and big woodchip companies came to revere the pursuit of pure knowledge for its own sake. A figure of $ 6 million was given in ABC reports for the gene sequencing budget, with $27 million being granted by the Feds for the next seven years.

It has been rumoured that a portion of this robust war chest has been earmarked to educate the public on their noble endeavours. A foretaste of this campaign may perhaps be seen in the impending name change for the CRC from "Sustainable Production Forestry" to "Sustainable Forest Landscapes". "Forestry", like commercial gain, is no longer in the picture.

Unless they actually enjoy it, one wonders why the industry would waste a cent on such a transparent smoke screen. Most of Tasmania's public forests have been simply handed to the logging industry with no requirement for any return to the public. Over 100,000 hectares of mainly public plantations, worth over $200 million, has been handed to the private sector as freehold for no return in a seemingly sham land exchange. We moo as we await the massive bill for the public's involuntary ex gratia contribution to the Gunns pulp mill, with its perpetual extension of the RFA logging frenzy .

The response of the Tasmanian public to all this blatant stuff could be likened to that of your typical tree stump. The prospect of the Tasmanian environment being slowly turned into a virtual pulpwood plantation is the last thing likely to bother a stump.

"Wait! Wait! Listen to me... We don't HAVE to be just sheep!

CNFN Frog Disease Project Update

Excerpts from a report to Australian Wildlife Health Network by Dr David Obendorf

Chytrid fungus, *Batrachochytrium dendrobatidis* appears to be well established in free-living populations of Tasmanian frogs, particularly in suburban and peri-urban areas. Chytrid fungus was detected at one remote alpine location with a high altitude (>900m) and cool climate alpine in the endemic frog, *Crinia tasmaniensis*.

To date the tadpole stages of six species of frog have shown visible lesions of chytridiomycosis confirmed by PCR and/or histology (Brown Tree Frogs *(Litoria ewingii)*; Eastern Banjo Frogs (*Limnodynastes dumerilii)*; Spotted Marsh Frog (*Limnodynastes tasmaniensis)*; Tasmanian Froglet (*Crinia tasmaniensis)*; Common Froglet (*Crinia signifera)*; Green and Gold Frog (*Litoria raniformis*). We are also investigating mass mortality events involving metamorph frogs.

We hope to assess the carrier status of chytrid in various life stages of some Tasmanian frogs using swabs for PCR testing.

Based on preliminary survey results there are nine wetlands in natural, rural and peri-urban areas that appear to be free of chytrid infection in tadpoles. With only one visual survey and set of PCR samplings at several of these sites and the close proximity to sites where BD has been confirmed in tadpoles, the negative results need to be considered with care.

Several sites with high frog biodiversity have been assessed as chytrid-free. Based on preliminary survey results there are nine wetlands in natural, rural and peri-urban areas that appear to be free of chytrid infection in tadpoles. Significantly several of these sites are where several frog species occur including the presence of species considered particularly prone to chytridiomycosis as frogs. Some of these locations are habitats with large populations of Green & Gold Frogs.

Following the baseline assessments we are recommending risk management and risk communication strategies to the Nature Conservation Branch of DPIWE.

Some species of frog with highly specialised ecologies and small areas of occupancy require careful evaluation At least one of these species, the Moss Froglet (*Bryobatrachus nimbus*) is of particular concern

Henry's Broom

by John Wilson

Some months ago, 80 year -old Henry Steers from Nook presented me with a new broom, in part, I suspect, because the plastic 1960s one that I was using to sweep the dust out of our new mountain cabin at Iris Farm looked a bit out of place with its 1890s architecture and cottage furnishings.

In any case, Henry's new broom touched my heart immediately, because he'd made it himself entirely from either recycled or native Tasmanian fibres in a style that his grandmother taught him when he was a boy. As she lived in the outskirts of the Kentish district a fair way from town, she made her own brooms whenever she needed one, and kept them in a bucket of water so that they would last longer and damp-dust as she swept.

As Henry's broom not only looked good, but worked efficiently, I have made several attempts to replicate it using whatever materials I've had on hand at Iris Farm, with varying levels of success.

For a stick, Henry has used *Pomaderris apetala* (dogwood) about 3cm thick, and a little over a metre in length. In a dense canopy, this wood grows tall and straight. It's an uncommonly tough wood with a smooth bark, and it suffers nails without splintering. This is a fortunate characteristic, because to start with, you need to hammer 2 two inch nails into the base of the broomstick at right angles, which will prevent the brush rotating out of control.

The brush itself is composed of *Gahnia grandis* (called 'cutting grass' by bushwalkers as well as the locals for a very good reason). *Lomandra longifolia* (sag) is a potential substitute, although in drying, this may lack some of the robust stiffness of the *Gahnia* stalks. To make the brush, about 20 strands of *Gahnia* are carefully tied together facing upwards around the base of the broomstick, leaving 20cm free. I've done this using some of the more mature Mistletoe (although Henry used recycled bailer twine).

After about a dozen rotations of the cord, the whole of the brush is bent over backwards, and firmly tied again using the opposite downward rotation.

The brush is then teased out sideways before being trimmed with scissors or knife, and held in this position by means of two dried sticks tied very tightly together on either side, and looped around the base of the broom. Once again Henry has used bits of bailer twine for this. However having no twine, I've found that green *Muehlenbeckia gunnii* (Macquarie vine) or *Billardiera longiflora* will serve the purpose just as well.

Somehow I suspect that Henry's grandmother would have approved.

Drawing by John Wilson

Contributions to CNFN Bulletin are welcome. We will publish practically anything that relates to natural history or the environment - poems, photos, artwork, stories, articles, diatribes or science. Views expressed do not necessarily represent the views of the organisation or the editor. Electronic copy preferred.