# The Natural News

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Scribbles on Western Peppermint (Eucalyptus nitida) Photo: Ian Ferris

### Following in the Footsteps of Michael Sharland and Brigadier Hugh Officer to the Northern Territory - part 2 *Richard Donaghey*

Fifty years passed before I returned to the Top End. On a trip with Carol through south-west Queensland to the NT in August 2017, we were re-acquainted with nearly all the birds I saw 50 years before. On our way we stopped at the Pine Creek settlement, and saw a female Hooded Parrot in the main street. On our return we stayed the night at Pine Creek and asked the proprietor of the resort if he had seen any Hooded Parrots lately. Sure have he said, they are down the road where the sprinklers are. Sure enough, bathing under the sprinkler were a gorgeous male and two female Hooded Parrots.

Kakadu NP was the highlight of our 2017 trip. We spent six full days exploring the Kakadu waterfalls, wetlands, floodplains, savanna woodlands and the sandstone escarpment (the 'stone country'). The wildlife and scenery on our 2-hour Yellow Water Cruise in the early morning was outstanding. We had great views of many birds, including the stately Brolga and Black-necked Stork, the secretive Black Bittern, Great-billed Heron, and Azure Kingfisher, and many raptors, egrets, herons, ibis, spoonbill and cormorants. Our Indigenous guide on the Cruise knew exactly where to get a great view of a male and three baby Comb-crested Jacanas. Jacanas have long legs and long toes and claws, and a distinctive red frontal comb or shield. Jacanas are polyandrous, that is the female mates with more than one male, and the male alone incubates the four eggs on a floating nest and cares for the young. The larger, heavier females defend a large territory within which 1 to 4 males defend smaller territories. Precocial downy young have a striped pattern. The male performs a distraction display and shelters the young from heavy rain by picking them up and placing



Comb-crested Jacana Julie Burgher www.flickr.com/photos/sunphlo/10854055003

them between his wings and body. He may also fly away with young tucked under his wings.

After the Yellow Water Cruise we went to the East Alligator region. Many rivers in Kakadu are named after the alligator, even though there are no alligators in Australia, only crocodiles. The prime attraction in this region is the Indigenous Rock-art sites at Ubirr. A young woman ranger was our guide and she told us all the stories about the past, dating back thousands of years. Nearby, outside Kakadu NP are sites depicting Aboriginal culture 65,000 years old. While the Ranger was telling us the creation stories of some rock-art, I saw a Sandstone Shrike-thrush carrying food to a nest on a rock ledge.

In the late afternoon, prior to visiting Ubirr, we walked the Bardedjilidji sandstone track through sandstone rock outcrops. Here we



Black-necked Stork JJ Harrison CC BY-CA 4.0



Orange-footed Scrubfowl Toby Hudson CC BY-CA 3.0

had a delightful close view of two endemic Chestnut-quilled Rock-Pigeons sitting on a rock-ledge.

West of the South Alligator River we walked the Gungarre Track through monsoon rainforest past a billabong. At the start of the walk I head the unmistakable raucous call of the Channel-billed Cuckoo and spotted one perched high up on dead branch. This cuckoo is 60 cm long and is the world's largest brood-parasite, that is, it lays its eggs in a hostnest and the young cuckoos are reared by their foster parents. The Channel-bill is a summer breeding migrant in Australia that overwinters in New Guinea and Indonesia. As a young teenager growing up in Sydney, I never saw any Channel-billed Cuckoos, but in 2007, when Carol and I did a bird survey in a patch of bush I knew intimately as a teenager, we saw Channel-bills. They are mainly frugivorous, and the female can lay as many as 5 eggs in its host-nest. In Australia, usually a mean of two eggs are laid, mostly in nests of the Pied Currawong and the Torresian Crow. The eggs of the Channel-billed Cuckoo resemble those of the Pied Currawong, but not those of the Torresian Crow. Eviction of host-young has not been recorded. Some host chicks survive, but most die of starvation within a week, probably because the cuckoo young monopolize food from their foster-parents.

Two other great birds we saw in the Gungarre monsoon forest were the Orange-footed Scrubfowl and the Rainbow Pitta. In 1967, we saw a few Scrubfowl in coastal monsoon forests east of Darwin, but Alan Lendon never saw or heard any on his 1964 trip. In 2017, we saw and heard Scrubfowl in monsoon rainforest in the South Alligator region and the Top End. To experience their amazing duets, one of the best places to visit is Iron Range NP in Cape York Peninsula prior to or during the wet season when they are active at their mounds. The *yorki* subspecies in the Cape York Peninsula is very vocal at night. The Handbook of Birds of the World states that this Scrubfowl subspecies is seldom heard during the day, but Carol and I often heard their duets in the mornings and evenings when we camped at Iron Range NP while studying tropical robins for many months over two breeding seasons.

After Kakadu NP, on the way to Darwin, we visited Fogg Dam. The Fogg Dam wetland complex and surrounding monsoon paperbark woodlands is excellent for birds. From the observation tower overlooking the wetland, we saw many species of waterfowl, including the Green Pygmy-Goose, Hardhead and the lovely Pink-eared Duck, a species that I didn't see in 1967, and the elegant Australian Pratincole. In the paperbark forests and the monsoon rainforest, some of the special birds we saw were the Shining Flycatcher, Broad-billed Flycatcher, Arafura and Northern Fantail, Rainbow Pitta, two Gerygone species, and a singing Lemon-bellied Flycatcher. The Lemon-bellied Flycatcher has a very loud song for a tiny bird and very interesting breeding biology and social behaviour. It builds, perhaps the smallest nest of all Australian songbirds, lays only one egg, and exhibits both pair-breeding and cooperative breeding.

On our way south, we drove west of Katherine to Gregory NP and had our first exquisite view of a White-quilled Rock-Pigeon on our climb to the escarpment. After a very rewarding and enjoyable trip to the Top End it was time for Carol to go home and get her vegie garden going, while I stayed at Gluepot for several weeks and studied and photographed robins. On our return to the Top End after 50 years, the most notable thing we noticed was the absence of large flocks of Magpie Goose, Red-tailed Black Cockatoos, and the Gouldian and Long-tailed Finches. Young naturalists need to be aware that the baseline data they collect now may be very different from that of earlier decades.

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Green Pygmy-Goose Summerdrought CC BY-CA 4.0



Australian Pratincole Christopher Watson CC BY-CA 3.0



Lemon-bellied Flycatcher Francesco Veronesi CC BY-CA 4.0



Long-tailed Finch JJ Harrison CC BY-CA 3.0

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## A scribble about scribbles *Ian Ferris*

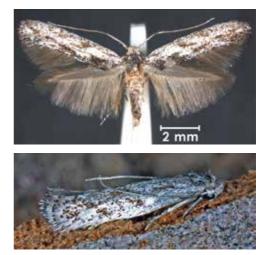
A tiny moth with the unpleasant name of *Ogmograptis* is quite common in the eastern states of Australia. It lays its eggs between old and new bark of certain eucalypt species, but only those which have a thin layer of shedding bark. The tiny larvae hatch and burrow into the top layer, tunneling along until they mature. They then drop out into a crack or the mulch at the base of the tree and weave a cocoon. There are at least 12 species of *Ogmograptis*, the most common has a wingspan of only 3-4 mm, though some species can be up to 9 mm.

The mining leaves a scar in the bark as the tree repairs itself. The patterns of the scars have been likened to scribbling, although there often does appear to be some order. In general, the scribbles form a zigzag pattern after some random upwards or downwards tunneling, with most scars indicating a reverse movement parallel to the initial track.

In North West Tasmania there is a limited number of zigs (or zags!), commonly 7-8, but as few as 3 or up to 10 or more. This might be different in other areas, or species. After some parallel chewing, the larva has had enough and breaks out, usually after encountering its original track. Entering the old track may provide a chemical signal, as the larva consumes some of the repair 'cork' material, or its own 'frass'.

The scribbles have had a place in folk-lore and literature, especially in the work of May Gibbs. Several eucalypt species are known as 'Scribbly Bark Gum', but the feature—which is still remarkably understudied—can be seen on many species.

Until 1934 it was thought that a beetle made the scars. As recently as 2012 it was discovered that there are a number of species of *Ogmograptis*, and that they may be eucalypt-specific with some scribble patterns



Ogmograptis Images: Natalie Barnett

characteristic of particular species. Around North Western Tasmania *Ogmograptis* has been observed on Western Peppermint *Eucalyptus nitida* (front cover) and scribbles are present throughout Tasmania on a range of eucalypts, but whether these have specific patterns (or species) is unknown. In southern New South Wales, the scribbles are mostly on the south and east sides of trees, but this feature has apparently not been examined in Tasmania.

A question to ponder: how does the larva know where its track is when mining parallel?

#### **References:**

"Systematics and biology of the iconic Australian scribbly gum moths *Ogmograptis* Meyrick (Lepidoptera: Bucculatricidae) and their unique insect–plant interaction"; Horak, Day, Barlow, Edwards, Su, and Cameron, CSIRO PUBLISHING Invertebrate Systematics, 2012, 26, 357–398

https://theconversation.com/unravelling-the-mystery-of-eucalypt-scribbles-11023

## CNFN Flame Robin 2020 Project Update Hazel Britton, Sarah Lloyd and Richard Donaghey

Many thanks to the people who have been recording observations of Flame Robins (and in some cases Dusky Robins) in response to our request earlier in the year. Please send your data sheets and/or records to Hazel Britton so that she can enter them into our database and where possible into Birdata.

Please continue to record your sightings throughout the summer. Already some observers have reported that birds they were seeing during winter have disappeared; in other areas there have been reports of birds arriving at the beginning of spring.

All records are of value and even if you have seen no Flame or Dusky Robins in an area where you observe regularly, this information is useful if you record 1) the location 2) the



Dusky Robin

habitat and 3) time span e.g. 1/6/2020 to 1/10/2020.

All records will be acknowledged and if you have any queries please contact us by email (or Hazel by phone 64252785).



11 November 2020 Amorous Blotched Bluetongues at Birralee. Insert: note the rich orange colour of the male's head and the engorged tick behind his front leg.

## My experience with biological recording *Phil Collier*

Biological recording is like cleaning your boots after a day in the bush. It's an "extra" that takes your time when you are ready to soak in the bath. But unlike your boots, which will probably need cleaning again after the next trip, the biological records can be of enduring value. I was recording for many years without fully realising its significance. These are some of my lessons learned along the way.

It all started when I arrived in Australia with my late wife Sue. We were already very keen outdoor people, and the bush was an unexpected bonus after previously walking the barren, sheep-grazed hills in Scotland. We knew nobody as we set about creating a new life in Hobart in 1982. As introverts, we forced ourselves out to join in with various activities, partly to meet new people. We chose adult ed "Botany of the Bush" with the inspirational Alan Grey and Society For Growing Australian Plants Tasmania (SGAP), as it was then, amongst others.

Our outings quickly became entangled with a strong interest in the plants we were walking amongst. SGAP outings were a great way to learn, and like many people we kept lists of plant names as they were announced by others. We were also snapping images of the plants and flowers. These two activities are both examples of biological recording lite. As I now realise, these lists and images are of little enduring value, at least without providing some further details retrospectively.

Probably after yet another severe episode of being stuck on plant identification (ID), I started to seek advice from the Tasmanian Herbarium. Quite soon, I also started to bring back collections of plants for the Herbarium, which they seemed to appreciate especially if unusual or from remote places. My association with the Herbarium was not entirely altruistic: they gained specimens and I gained new knowledge about plant ID.

Additional information for each specimen was hand written in a special printed book provided by the Herbarium. Each record includes the mandatory four Ws for a (valid) biological record:

**Where**: a location on the earth, e.g. grid reference from a map

**What**: a description usually in the form of a species/taxon name

When: the date that it was seen

**Who**: the person who collected it (this was written on the spine of the collecting book!)

I have kept my collecting permit up to date for most of the time since the early frenetic years, and continued to collect interesting-looking specimens, but much less intensively. As retirement approached in 2007, Robin and I re-engaged with biological recording in new ways.

Threatened Plants Tasmania aims to assist DPIPWE with surveys for threatened plant species, and these have been a lot of fun over the years. The main outcome of their field trips is often an electronic sheet of new records to be entered into Tasmania's Natural Value Atlas (NVA), which covers plants and many other life forms.

The NVA is a large database of biological records gathered by many people over many years. NVA records, in the absence a physical specimen, are often verified by somebody who is familiar with the known distribution of the taxon, and/or the recorder's knowledge and reputation. The verifier may call on the recorder for more information in the case of uncertainty about a new and potentially significant record.

Electronic devices have also enabled various other repositories of biological records. Robin

and I volunteered to help with a BioBlitz at Latrobe several years ago, which gave us an introduction to the social network iNaturalist. Apart from the four **W**s listed above, an image is also required with each biological record submitted to iNaturalist. The image enables negotiation between the recorder and other members of the network as to **What** has been recorded. Just as I was able to learn from staff at the Herbarium all those years ago, members of the network can learn from each other, albeit perhaps less authoritatively.

iNaturalist and similar social networks can/ do display the number of records and the number of IDs posted by each member, and reputations are presumably created on that basis. I sometimes wonder whether this is creating a new field of "image-based botany". I much prefer to stare down a microscope to look at minute details, which of course can also be uploaded as an image if necessary. For whatever reason, I have not been drawn to participate in these social networks, although the "mainstream" repositories do import relevant records from iNaturalist, so it is worthwhile.

Two years ago, Robin and I returned to UK after a gap of about 40 years, and soon started to venture out, this time mostly in the New Forest. I immediately realised that I habitually rehearse plant names when out walking, and now I was floundering with the many unfamiliar plants. I soon found the UK iRecord system to substitute for my helpful visits to a Herbarium. iRecord is a hybrid of the NVA and iNaturalist approach, where botanical records with images are verified by the local vice-county recorder (or nominee). The current South Hampshire recorder is Martin Rand, a child prodigy botanist who has provided meticulous feedback on my records. I hope that I have provided some useful records in return for his endless patience.

The Botanical Society of Britain and Ireland

	Pseud	oboletus parasiticus 🗦	
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Screen from iRecord app when recording the fungus *Pseudoboletus parasiticus*.

(BSBI) maintains a vibrant network of 113 vice-county botanical recorders and a similar number of botanical specialists or referees. BSBI local groups and various trusts organise numerous field trips, meetings and specialist courses which we have eagerly anticipated and attended, until Covid put a stop to them.

BSBI takes the lead in national botanical recording, both for opportunistic records and projects. The largest project is a survey of the whole country every 20 years using a 2 km x 2 km grid, a so-called tetrad. Using roads, public footpaths and common land, we have joined numerous "square bashes" (AKA tetrad surveys), recording every taxa that is seasonally recognisable. In South Hampshire there is only one tetrad where access is impossible, occupied by a large oil refinery!

What can we learn from the accumulated biological records, some opportunistic, some well organised? The short answer is a picture of the distribution of organisms within each species, and any trends over time. This provides an evidence base for determining the status of each species, and whether they are a candidate for being listed as threatened. Indeed the first 1962 Atlas of British Flora is credited with inspiring the first British Red Data Book in 1977, based on objective pre- and post-1930 survey data.

And here the implications touch on land use decisions, which can have economic implications. For example, the Red Book was subsequently used to help define Sites of Special Scientific Interest (SSSI) in the 1990s. These days, environmental consultants will typically start an investigation for a proposed new development by searching a data base for records of organisms previously recorded in the immediate area. For this reason, the 40 million+ biological records held by the BSBI are not freely available to business, so the data has economic as well as scientific value.

What is the moral of this tale? Your own notebook of biological records is of limited value. You do need to provide records to on-going repositories like the NVA, especially for places that are close to your heart, most especially for any actual or potentially threatened species. The effort is rewarded by a legacy that extends beyond all our individual lifetimes. Maybe the soak in your bath will feel even more satisfying having cleaned your boots and submitted your records!



Above *Lactuca virosa*, great lettuce, a native species in the UK best determined by its blackish ripe achenes (below). An image was added to the initial record to cover this key feature.

#### Previous determinations

*Lactuca serriola* (Prickly Lettuce) by Collier, Phil on June 08th, 2020 Comments Auto-generated Coordinate is outside known 10Km (all dates) range of *Lactuca virosa* Can be identified by an experienced botanist Rand, Martin With purple midribs and purple stems, this is likely to be the (less common) forma virosa of L.

virosa. Keep an eye on it and see what colour achenes it produces (and in the meanwhile, see if the latex really stinks of Opium)

Verification discussion about a record of *Lactuca serriolata* in iRecord, firstly the automated comments, then comments from botanical expert Martin Rand.

### Sugar Gliders Petaurus breviceps Sarah Lloyd

Ron and I started searching for large trees with hollows after a photo of a scat or pellet we found on our track was identified as almost certainly the pellet of a Masked Owl.

It didn't take long to locate a likely eucalypt with numerous cavities, but instead of finding a possible Masked Owl roost or nest site, we came across a huge pile of bark, leaves and other material at the base of the tree.

Because of its size, we thought that Common Brushtails or Ring-tailed Possums were responsible, but brushies shelter in tree hollows or roof cavities and ring-tails construct dreys in canopy foliage. It was by a process of elimination, and several tiny creatures captured on a motion sensitive camera, that we concluded that this was the work of a family—or possibly many generations—of sugar gliders.

Sugar gliders usually live in large colonies of up to seven adults plus the current season's young. Male gliders mark their territories and members of the group with a scent produced by glands on their forehead and chest; any intruders that lack the scent of the colony are vigorously excluded.

What seems remarkable about the accumulated material, including—if the smell is anything to go by—daily additions of fresh eucalypt leaves, is that it has been amassed by an arboreal animal; to avoid terrestrial predators, sugar gliders rarely descend to the ground. We concluded that these tiny gliders must enter the burnt out trunk by a hollow higher up the tree and drop the material from above.

There is some debate about whether sugar gliders were introduced into Tasmania. The lack of sub-fossil remains and no Aboriginal word for the animal seems to indicate that they did not naturally occur here.



A 1.4 meter high pile of sticks, bark, bracken fern and leaves at the base of the hollow eucalypt.



I stood on tip toes and, with arm outstretched, used the flip screen on my compact digital camera to focus on this bed of fresh leaves inside the stump.



*Petaurus breviceps* translates as 'short-headed rope-dancer'. Photo by Gillian Weekes.

### Walks and other events

Bring food, water, clothes for all weather, hand lens, binoculars, note book and curiosity

**Sunday 3 January 2021** — **Billet Creek Nature Walk**. Meet at the Tasmazia Carpark at 10 am. 500 Staverton Rd, Promised Land. The Billet Creek Nature Way is a Class 3, 2.7 km walk on the steep eastern hillside of Lake Barrington, with a descent/ascent of 230 m. It passes through tall eucalyptus forest and rainforest gullies to a waterfall. We will organise some cars at the end of the track at Murfet Bay carpark to take drivers back up the hill to retrieve their cars. Leader Basil Kleynendorst

#### Saturday/Sunday 23-24 January 2021— Moina Weekend

Weekend Outing 23-24 January to a private conservation property near Moina. Interesting walks catering for most levels of fitness. Access is fine for 2 wheel drive vehicles. Camping spots are available and there are some basic facilities. Alternative nearby accommodation: Lemonthyme Lodge; Cradle Alpine Retreat; Cradle Forest Inn. Bookings essential by 10 January 2021: June Hilder (0424350183) or email jehilder@gmail.com; or Martha McQueen (03 63932121), email martha.mcqueen@iinet.net.au Further details will be sent after booking.

**Sunday 7 February 2021— Pine Lake and Rats Castle.** Meet at 10 am at the Pine Lake Nature Trail on Highlands Lake Road (A5) 17.6 km south of Golden Valley.

A summer walk in the highlands to observe alpine plants and insects. Of particular note are the pencil pines and alpine flora and fauna along the board walk at Pine Lake; the cushion plants and block stream (and more!) at Rats Castle. Of further interest to some may be a drive further south to check out damage/regeneration following the Great Pine Tier Fire in February 2019 at Miena. Leader Rod McQueen

**Sunday 7 March 2021—Frenchs Road Nature Reserve and Fossil Bluff**. Meet 10am at Frenchs Rd, off Seabrook Rd, Somerset. Frenchs Rd Nature Reserve is 34 ha of remnant bush in the fertile farming region of north-west Tasmania. Leader Richard Donaghey

**Fossil Bluff** at low tide is a perfect place to observe different geological epochs including tillite from the Permian period 280 million years ago, sandstone fossils from the Oligocene period 38 million years ago and basalt lava flow 13 million years ago. We will visit after lunch.

Sunday 11 April— Quamby Bluff (Please note that because of Easter the outing is on the second Sunday in April) Details to be confirmed. Leader Sue Gebicki

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