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Central North Field Naturalists Inc.

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FAUNA (FOOTAGE OF ANIMALS USING NATURAL AREAS) CAMERA -SIMON VAN DER VEEN

SPYRIDIUM OBCORDATUM AT HAWK TRAP HILL—UPDATE NOVEMBER 2022

- Phil Collier

Evening with the Birds, Tasmanian Arboretum 16 February 2023

- Sarah Lloyd

FAUNA (Footage of Animals Using Natural Areas) CAMERA A community/environmental project run by the Central North Field Naturalists Simon Van der veen

The Central North Field Naturalists (CNFN) has a high quality wildlife motion sensor camera (Reconyx XP9) and it was decided to do a joint project with the Tasmanian Arboretum to survey areas to see what animals are using the grounds, both day and night.

A motion sensor camera was the preferred equipment for the survey, as it is non-invasive, doesn't need much labour or time to set up and can detect animals during the day and night passively for extended periods of time, without continued human involvement or intrusion.

The main target species was the Eastern Barred Bandicoot (*Perameles gunnii*) although all animals found would be noted and entered in the Natural Values Atlas (NVA).

Philip Milner assisted Simon with locations suitable for the camera, while Simon analysed the results from the footage and is entering the data into the NVA.

Australian Section Western Hill

Fresh bandicoot diggings were seen in the Australian Section Western Hill, so this was the first area to be surveyed. The camera was aimed at an area of bare ground/soil near some established plants.

The camera was programmed so that one photograph would be taken, instantly followed by 30 seconds of video each time an animal passed in front of it.

The camera was left for 21 days from 19 September 2022 to 10 October 2022, during which time 200 photographs and 200 x30 second videos were recorded, giving a total of 100 minutes.



Reconyx XP9 in position Photo S. Van der veen

Mammals:

Cat (Felis catus) (i)

Black Rat (Rattus rattus) (i)

Tasmanian Pademelon (*Thylogale billardierii*) Southern Brown Bandicoot (*Isoodon obesulus*) Spotted-tail Quoll (*Dasyurus maculatus*) Birds:

Common Blackbird (*Turdus merula*) (i) Australian Magpie (*Gymnorhina tibicen*) Superb Fairy-wren (Malurus cyaneus) Beautiful firetail (*Stagonopleura bella*) Tasmanian Native-hen (*Gallinula mortierii*)

East Coast Tasmania Woodland

The next area surveyed was the East Coast Tasmania Woodland section. The camera was aimed at an area of mown lawn right on the edge of established shrubs in a mulched bed. The camera was in position for 23 days from 10 October 2022 – 02 November 2022. 280 photographs and 280 x30 second videos were recorded (140 minutes)



A Spotted-tail Quoll was captured strolling through the grounds of the Arboretum

Mammals:

European Rabbit (Oryctolagus cuniculus) (i)

Black Rat (i)

Tasmanian Pademelon

Common Brush-tailed Possum (Trichosurus vulpecula)

Long-nosed Potoroo (Potorous tridactylus) Birds:

Common Blackbird (i)

Brush Bronzewing (Phaps elegans))

Superb Fairy-wren (Malurus cyaneus)

Tasmanian Native-hen (Gallinula mortierii)

Australian Rainforest Gully

The Australian Rainforest Gully was tried next for only 8 days from 2 –11 November 2022. 135 photographs and 135 x30 second videos were recorded (72 minutes).

Mammals:

Black Rat (i)

Tasmanian Pademelon

Common Brush-tailed Possum

Short-beaked Echidna (Tachyglossus aculeatus) Birds:

Common Blackbird (i)

Superb Fairy-wren

Don River Bridge

The final camera location was next to the bridge over the Don River, near the New Zealand section where Spotted-tail Quoll scats



Superb Fairy-wren, Common Blackbird and Tasmanian Pademelon were captured at all four sites.

had been seen on the bridge. For security reasons the camera could not be left on the bridge itself, instead it was placed in some bushes off to the side.

The camera was in position for 5 days from 10 −15 November 2022. 28 photographs and 28 x30 second videos were recorded (14 minutes).

Mammals:

Tasmanian Pademelon Common Brush-tailed Possum Rirds

Common Blackbird Superb Fairy-wren

Summary of results:

Over a period of 66 days and nights, the camera recorded seven native and three introduced mammal species.

Five native and one species of introduced birds were also observed.

326 photographs and 5 hour 26 minutes of video footage were captured and analysed to compile the species lists.

Conclusion:

Even though we were not successful in recording the target species of Eastern Barred Bandicoot, it was wonderful to capture an image of the Spotted-tail Quoll strolling through the Arboretum grounds. The Cat



Australian Magpie eating a Canary Worm Fletchamia sugdeni

observation at the Australian Section, Western Hill is worth noting for discussion. Common Blackbird, Superb Fairy-wren and Tasmanian Pademelon were the only animals to be captured in all four locations. An interesting observation was that of an Australian Magpie eating a Canary Worm (*Fletchamia sugdeni*).

All photographs and videos captured on the CNFN motion sensor camera at the Tasmanian Arboretum and Reid Street Reserve, Ulverstone were identified by Simon Van der veen

All records were of native animals except those indicated by (i) = introduced.

Acknowledgements

Philip Milner suggested sites at the Arboretum and proof read the article. Sites at Reid Street Reserve were suggested by Hazel Britton, Pat Ellison, Tony Britz and Alison Parks.



Short-beaked Echidna



The fauna camera at Reid Street Reserve (Ulverstone) captured three different marsupials at the same location. They include clockwise from above: mum and joey Pademelon having a cuddle, Southern Brown Bandicoot and Long-nosed Potoroo.





Spyridium obcordatum at Hawk Trap Hill—update November 2022 Phil Collier

Background

Spyridium obcordatum, creeping dustymiller, is restricted to a small area near the central north coast of Tasmania and is listed as vulnerable both in Tasmania and nationally. There are a few known sites for this species, with possibly the biggest in the Dans Hill, Barnes Hill area near Beaconsfield. Most of the near-coastal sites have significant threats (e.g. housing development) or recent population declines.

In The Natural News 66 (May 2017), I reported on the results of a caged-uncaged experiment at Hawk Trap Hill, Port Sorell, conducted by members of the CNFN. We aimed to distinguish between drought and enhanced grazing as the primary cause of a dramatic population decline. The result of our experiment demonstrated that grazing was the main cause, with most caged plants growing successfully despite dry years during the experimental period, while uncaged plants largely disappeared.

During the experiment, we had also been surveying and counting plants, and we knew that numerous seedlings had germinated on the rock plates in 2013 and 2016. The 2013 seedlings had more or less vanished by 2016.

Post-experiment actions

Having completed an experiment with very clear results, we faced the question about how to use the results. Our thoughts "naturally" turned to caging as a possible longer-term solution to the grazing problem. A meeting with the local Parks ranger-in-charge included some optimistic discussion about installing a large cage on the "lower" rock plate, in an effort to manage one of the two extant popu-



lations. Unfortunately, this cage did not materialise for various reasons, possibly including the difficulty of securing a cage on an uneven rocky site.

While Robin and I were about to depart for the UK in 2018 to assist my elderly parents, the baton was seized by the more innovative Philip Milner and Peter Lawrence, who were determined to take some effective action. Philip and Peter were aware of the *Spyridium* seedlings and felt that if these were protected from grazing, then the population might recover. They also noticed a good supply of woody debris near the rock plates, mostly in the form of dead *Allocasuarina* branches, and decided that this could be moved onto the rock plate where it would provide the necessary protection for the seedlings.

My initial response was to be sceptical on two grounds that we had not covered off in the caged-uncaged experiment. Would the shading by the branches negatively impact the *Spyridium* plants? We already knew that the plants growing amongst the *Lepidosperma viscidum*, in a sheltered shady habitat were slender and wiry, a pale imitation of the robust plants now evident in our cages. I was also concerned about shading the rock plate itself



Spyridium obcordatum plant(s) that have germinated and grown in the shelter of woody debris.

and the habitat for those plants which grow in the shallow soil there. But Robin and I were out of the country, and we were not going to interfere with enthusiastic people who were trying to make a difference.

Results from spreading woody debris

In a word the results are outstanding. I'm told that *Spyridium* seedlings were identified as a guide to where dead branches should be placed. And now, virtually all of the woody debris on both the lower and upper rock plates are protecting *Spyridium* plants. Even branches relatively far from known *Spyridium* in the past are populated. It would now be interesting to spread dead branches even more widely, to see whether seedlings and plants could occupy a larger area. *S. obcordatum* is not restricted to open rock plates at the nearby Summerhill Drive area.

I think it's fair to say that newly protected *Spyridium* plants are relatively small, with

sparse flowering, possibly because they are still young. In contrast the mature caged plants are still present in their (experimental) cages and looking very robust and healthy. These plants flowered prolifically in 2022 and they are possibly helping to enhance the stock of Spyridium seeds on site, but this is speculation.

What about the overall impact on the rock plate, where it is now covered with patches of woody debris? This is potentially a topic for systematic monitoring and analysis, where the initial condition of the rock plate would be carefully recorded. I will offer only some preliminary feelings which lack any knowledge of specific circumstances prior to the branches being placed. There are some areas under branches where tussock grasses have now taken their chance, which has altered the local habitat. On the other hand, there are places towards the edge of the areas covered by branches where specialist rock plate plants look far larger and healthier than out on the open rock plate. It looks like the little rock

plate herbs are also being nibbled when out in the open, and they may benefit from some (limited) protection, contrary to my previous concerns. Also, there is one very robust *Thelymitra brevifolia* orchid growing amongst the woody debris, which surely would have been grazed if not protected.

Discussion

It is so nice to report a successful recovery project on a threatened plant species. In many ways this is close to a text book example: notice a problem, propose hypotheses, test and monitor, analyse, all leading to a solution. The discovery that grazing not drought is the primary cause of plant loss, combined with surveys that found plenty of natural seed germination led to a pragmatic and workable proposal. The spreading of woody debris has protected the natural seedlings and recovered the population of Spyridium plants for the time being at least. The project costs are minimal: perhaps just an annual visit to move and repurpose some nearby woody debris. Whether this success can be maintained indefinitely, only time will tell, but the signs are promising.

Postscript: Fire at Hawley Nature Reserve

My interest in *S. obcordatum* at Hawk Trap Hill was prompted by a proposal to burn the surrounding Hawley Nature Reserve about 15 years ago. The question was whether special measures were needed to protect the plants known to be on and near the rock plate. At this time, we were disappointed to find that the *Spyridum* plants were in a state of serious decline, but we felt that a planned burn was unlikely to affect the remaining plants because the rock plate would be unable to carry a fire. In this conclusion we were proved correct, at

least for the widespread burn 15 years ago.

In the more recent burn, in spring 2021, there is evidence of spot fires on and near the rock plates. Whether these were deliberately lit or the result of natural spotting is unclear. However, these spot fires have severely impacted a good number of Lepidosperma viscidum tussocks, itself a listed threatened species in Tasmania, and known to protect some Spyridium plants. A few Lepidosperma tussocks have signs of tentative regrowth, while the majority look to be dead. What is quite clear is that every effort should be made to keep planned burns away from the rock plates, and it is definitely not appropriate to deliberately introduce burns into this habitat. As a further threatened species association, we have previously recorded golden bell frogs, Litoria raniformis, sheltering amongst the *Lepidosperma* tussocks, when searching for our experimental tags.

Summary

In my 2017 article, I wrote "Rather predictably, given the overall results, the seedling plants evident in 2013 have not resulted in any recruitment of immature or adult plants, and probably the same fate awaits the 2016 seedlings, unless something is done ...". In this article, I describe what was done, and how successful it has been. This is a heart-warming, but sadly rare, example of successful ecological restoration that benefits one of our regionally endemic threatened species. Yes, there was some serendipity involved, but it needed to be noticed and exploited.

Acknowledgments

This has been a wonderful collaborative project coordinated and mostly conducted by Central North Field Naturalists. Congratulations to all concerned: we should pat each other on the back all round.

Evening with the birds, Tasmanian Arboretum 16 March 2023 Sarah Lloyd

The concentration of expertise at the Birdata workshop held at the Tasmanian Arboretum on 16 February 2023 was an opportunity too good to pass up. After discussing a plan to organise an event "Evening with the Birds" with key people, the idea was presented to CNFN committee members, who greeted it with enthusiasm.

More than a decade ago Dr Richard Donaghey and I led a series of "Breakfast with the Birds" walks and talks on working farms across northern Tasmania. Early morning in spring is a good time for such events as bush birds — the main focus of our walks — are relatively sedentary during the breeding season. Breakfast was also a good time to engage with farmers as their working day had not yet started. Because more farmers expressed interest in hosting the event than could be organised for spring, one had to be held in autumn. We decided on an evening BBQ followed by walks in the nearby bush where the birds were most obliging.

Evening bird walks may seem unusual to people who associate bird watching with early mornings in spring when birds are focussed on breeding, i.e. finding a mate, building a nest, incubating and rearing young. These activities usually take place in the areas with the densest vegetation that provides shelter from predators and inclement weather. It means birds are rarely seen during spring bird outings, although it is a good time to listen to calls and songs.

By Autumn most bush and forest birds will have reared their young, and migratory species such as Welcome Swallows and Dusky Woodswallow are forming flocks and preparing to move to warmer coastal areas or returning to the Australian mainland, something we witnessed during the evening. Adult birds are not focussed on breeding activities, and youngsters are moving out of their breeding territories which means birds are often more visible at this time of year.

The Tasmanian Arboretum covers 66 ha which is extensive enough for several groups



Black Swan and cygnets, Founders Lake, Tasmanian Arboretum Photo: Jo Kingston

to go in different directions and cover most of the area, and the paths are well defined so there is little possibility of getting lost. Most importantly, it provides suitable habitat — wet forest, dry forest, open grassland — for a wide variety of bush, forest and open country birds and the large body of water at Founders Lake attracts numerous waterfowl.

We witnessed this abundance during a recce before the big day. After discussing the finer details of the event with co-organisers Philip and Martha, we headed to the wet forest adjacent to the Don River. Satin Flycatcher—unseen in the canopy — were singing their unusual songs, and we saw two Tasmanian endemics, Dusky Robin and Strong-billed Honeyeater, both recently added to the list of 'vulnerable' species in the latest Action Plan for Australian Birds 2020 (Garnett & Baker). We then headed to Dickenson Outcrop where Blue-winged Parrot, another species now listed 'vulnerable', were active.

Our advertising attempts (flyers sent to CNFN members, and via the Arboretum and Birdlife Tasmania Facebook pages) resulted a trickle of registrations by our deadline, but by 16th word had got around and 50 people, including leaders, gathered for the evening.

Before each group headed off in different directions to survey their alloted sections, participants were given strict instructions to keep chatting to a minimum so as not to interfere with detection of songs and calls. As the list indicates, 40 species were observed, giving a snap shot of the birds at the arboretum between about 5:15 and 7 pm in February 2023.

Interestingly, the elusive Dusky Robin and Strong-billed Honeyeater were not observed during the evening, and nor was the Little Pied Cormorant, an occasional visitor to the Lake.

As we learned during the Birdata workshop, it is by doing regular repeated surveys at a location that we get a complete picture of the



Dusky Robin Photo: Jo Kingston



Little Pied Cormorant at the Arboretum. Photo: Jo Kingston

species that occur in an area.

Thanks to the many people —walks' leaders, caterers, cooks and participants — for making this a successful, informative and fun evening.

Species list for five evening walks at the Tasmanian Arboretum 16 March 2023 (P = present)

Common Name	Scientific Name	Walk 1	Walk 2	Walk 3	Walk 4	Walk 5	Walks present
Black Swan	Cygnus atratus	Р			Р	Р	3
Australian Shelduck	Tadorna tadornoides	Р			Р		2
Pacific Black Duck	Anas superciliosa	Р			Р		2
Chestnut Teal	Anas castanea	Р			Р		2
Shining Bronze-Cuckoo	Chalcites lucidus		Р				1
Tasmanian Native-hen	Tribonyx mortierii	Р		Р	Р		3
Eurasian Coot	Fulica atra	Р			Р		2
Masked Lapwing	Vanellus miles				Р	Р	2
Laughing Kookaburra	Dacelo novaeguineae	Р	Р	Р	Р		4
Yellow-tailed Black-Cockatoo	Zanda funereus	Р		Р	Р	Р	4
Green Rosella	Platycercus caledonicus	Р	Р	Р	Р	Р	5
Blue-winged Parrot	Neophema chrysostoma	Р			Р		2
Superb Fairy-wren	Malurus cyaneus	Р	Р	Р	Р	Р	5
New Holland Honeyeater	Phylidonyris novaehollandiae	Р		Р	Р		3
Yellow-throated Honeyeater	Nesoptilotis flavicollis	Р	Р		Р	Р	5
Black-headed Honeyeater	Melithreptus affinis		Р	Р			2
Eastern Spinebill	Acanthorhynchus tenuirostris	Р		Р	Р		2
Little Wattlebird	Anthochaera chrysoptera				Р	Р	2
Yellow Wattlebird	Anthochaera paradoxa		Р		Р		2
Spotted Pardalote	Pardalotus punctatus		Р		Р	Р	3
Striated Pardalote	Pardalotus striatus				Р	Р	2
Tasmanian Scrubwren	Sericornis humilis		Р	Р	Р	Р	4
Brown Thornbill	Acanthiza pusilla	Р		Р		Р	3
Black-faced Cuckoo-shrike	Coracina novaehollandiae	Р	Р	Р		Р	4
Golden Whistler	Pachycephala pectoralis		Р		Р		2
Grey Shrike-thrush	Colluricincla harmonica	Р	Р	Р	Р		4
Australian Magpie	Gymnorhina tibicen	Р			Р	Р	3
Grey Butcherbird	Cracticus torquatus		Р	Р	Р	Р	4
Dusky Woodswallow	Artamus cyanopterus	Р	Р	Р	Р	Р	5
Grey Fantail	Rhipidura fuliginosa	Р	Р	Р	Р	Р	5
Forest Raven	Corvus tasmanicus	Р	Р	Р	Р		4
Satin Flycatcher	Myiagra cyanoleuca		Р				1
Pink Robin	Petroica rodinogaster	Р					1
Beautiful Firetail	Stagonopleura bella				Р		1
European Goldfinch	Carduelis carduelis	Р	Р	Р	Р		4
Welcome Swallow	Hirundo neoxena	Р	Р	Р	Р		4
Silvereye	Zosterops lateralis	Р	Р		Р		3
Bassian Thrush	Zoothera lunulata			Р			1
Common Blackbird	Turdus merula	Р	Р	Р	Р		4
Black Duck-Mallard hybrid					Р		1
Brown/Tasmanian Thornbill spp)		Р		Р		2
Number of species		26	22	20	34		40

Walks and other events

All walks are scheduled for the first Sunday of the month unless otherwise stated. Meeting time is usually 10am. Please check the disjunct e-news for details.

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

April 2nd Henry Somerset Reserve, Railton. A stroll around the Reserve followed by a stroll around Pig Island at Latrobe. Contact Steve Broadbent

May 7th Philosopher Falls is a well-known and beautiful track down to a waterfall on the Arthur River. Betts Track nearby is a flat walk in wet forest south of Waratah. Rated easy to moderate. Contact Mary McConnell 0409 900 476

June 4th Stony Rise (private property), with Jennifer Rowlands. Details to be confirmed

July 2nd Alum Cliffs & Montana Falls. Leader Mary McConnell 0409 900 476

August 6th AGM

September 3rd Slime moulds and birds at Black Sugarloaf. Sarah Lloyd and Ron Nagorcka

Front cover: Male Superb Fairy-wren at the Tasmanian Arboretum. Photo Jo Kingston.

Vale Nell Carr

Nell Carr was one of the inaugural members of the Deloraine Field Naturalists, now the Central North Field Naturalists. She used to reguarly attend field trips and other activities and always supported the group, especially in the recent battle to save Brushy Rivulet Reserve. Nell wrote a popular garden column for community newspapers, was a foundation committee member of the Deloraine Environment Centre, and she started the bottle and paper recycling in a large old blacksmith shed, which was the catalyst for developing the Trash Transformers recycling management at the Deloraine tip. Nell was a role model to generations of women, and an inspiration to those who knew her.

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