

# Bulletin

<https://tasfieldnats.org.au>

Quarterly Bulletin No. 377      January 2020

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*Left: Crocoite specimen from Rod Hewer's collection.  
Photo: Geoff Fenton*



## Program 2020

Thursday 6th. February Meeting	A presentation from Stewart Nicol, Associate Professor and Honorary Research Associate, School of Natural Sciences, UTAS: <b>Smart, sexy and cool (and only a bit prickly). Why Tasmanian echidnas are special.</b>
Saturday or Sunday 8th or 9th February - Excursion	Venue to be announced.
Thursday 5th March	Annual General Meeting and President's Address
Saturday or Sunday March 7th or 8th.-Excursion	Venue to be announced
Thursday April 2nd. Meeting	Guest Speaker to be announced

**General Meetings** start at 7.15 pm for 7.30 pm on the first Thursday of the month and feature a guest speaker on natural history (no meetings or excursions in January). Meetings are held in the Life Science Building at the University of Tasmania.

**Excursions** are usually held the following Saturday or Sunday. Final details will be decided at the preceding Thursdays meeting and published on the website after the meeting. Bring lunch and all-weather outdoor gear.

# Excursion to Rod Hewer's rock collection, Acton Park

## Sunday 10 November, 2019

Rod Hewer has a passion for rocks. Our excursion was a follow-up from the presentation that he gave to the club at our November meeting, on the topic of lapidary, semi-precious stones and petrifications. Rod and Sharron Hewer generously hosted our outing to their home at Acton Park, where Rod showed us his extensive collection and demonstrated rock cutting. The outing drew quite a crowd, with 20 field nats turning up for the day.



Field Nats at November excursion  
Photograph: Geoff Carle

A cottage crafted from stone and brick was the first attraction, the challenge being to spot the petrified wood set into the stonework. Meanwhile a Southern Brown Bandicoot made a mid-morning appearance, apparently undisturbed by the crowd, while magpies and noisy miners played about in the trees. A magpie and a miner are good mates, though the magpie gave its friend the cold shoulder when duty called in the form of transporting a fat worm to clamouring young not far away.



Petrified wood in cottage wall  
Photograph: Geoff Fenton

Rod and Sharron have established a pleasant woodland garden featuring numerous rock walls and creations during the forty years they have lived at Acton. Over the years, Rod accumulated rock from various excavations, such as sandstone from Sandspit River Quarry and vesicular basalt from the Brighton Bypass construction, basalt nodules from a local farm, opalised wood from Meadowbank dam. Plantings include *Angophora*, *Eucalyptus morrisbyi* and *E. rodwayi*, the latter two of significance to Rod, who has family connections to both AL Morrisby and Leonard Rodway. Plantings have been a trial and error process, not without difficulties, chiefly in the form of Red-necked Wallabies, Pademelons and particularly feral Fallow Deer.

The impressive rock collection occupies cabinets around the walls of a double garage. Among Tasmanian rocks is the state's mineral emblem, crocoite, orange-red crystals of lead chromate from the Adelaide mine at Dundas on the West Coast. Other highlights are a giant smoky quartz crystal from Gladstone; agate, jasper, petrified wood and fossil ferns from Lune River. Fabulous patterns of ferns and *Araucaria* appear in polished cross-sections.

Rod and Sharron assisted paleobotanist Mary White and photographer Jim Frazier on their Tasmanian trip researching for the book *Time in Our Hands: Semi-precious gemstones, keys to the geological past*, (Reed, 1991). Many rocks from Rod's collection illustrate the book. Tasmania has rocks that are sought after by collectors from around the world and Rod is part of a



Rod Hewer showing peanut wood  
Photo Erika Shankley

network of interested collectors who exchange and purchase specimens. Rod's collection includes many examples from interstate and around the world. From the Congo are specimens of beautifully banded green malachite, a copper carbonate hydroxide mineral. There is a stunning ammonite from Madagascar, and trilobites from Monaco.

Included in the collection is Darwin Glass, collected 40 years ago in the Crotty area on the west coast, called

Darwin Glass because they are impactites from the Darwin Crater impact site.

Petrified wood from logs once under the sea are an interesting exhibit from the Gascoyne region in WA. Called 'peanut wood', it is attractively patterned thanks to the invasion of Teredo shipworm (actually a marine bivalve mollusk, *Teredo navalis*) when the *Araucaria* timber was submerged in the sea, and the patterning was locked in during the subsequent petrification process.



Ammonite  
Photo Geoff Fenton

Strange rocks with unexpected centres, called 'thunder eggs', can form in silica-rich volcanic rock when a bubble of gas is trapped as the lava cools, and minerals then crystallise in the bubbles. The Australian Museum has a good description of the formation of these and other concretions at: <https://australianmuseum.net.au/learn/minerals/shaping-earth/concretions-thunder-eggs-and-geodes/>

Unprepossessing looking lumps of rock have been judiciously sawn and polished to reveal the secrets within to best advantage. Delightful colours and patterns can emerge. It takes a practiced eye!



Rod demonstrating the lapidary saw  
Photograph: Geoff Fenton

From the rock collection we moved to the lapidary workshop to witness the cutting process. Rod had set up a piece of fossilized coral from Sumatra for the demonstration on a lapidary slab saw. The blade runs in a bath of oil, the set-up enclosed under a lid. The rock took 30 minutes to cut through and was then left for a while for the vapour to settle. The resulting face was delicately patterned in buffs and cream, revealing the intricate cross-section of the coral.

Out in the sunshine again, field nats foraged among bark on the tree trunks for spiders and moths. And we really were leaving, but there was one last thing — well, two really. On the way down the drive Rod pointed out a little pink ear of a sleepy ringtail in a drey of twigs, leaves and bark, hidden in an Esk Pine. Further down towards the lower dam was an interesting planting, *Eucalyptus platypus* from WA, with its large clusters of chunky buds with long curved caps. The caps fall off to reveal the greenish-yellow flower. The name derives from the elongated, flat peduncles. More on the platypus tree at: [https://en.wikipedia.org/wiki/Eucalyptus\\_platypus](https://en.wikipedia.org/wiki/Eucalyptus_platypus)  
Our thanks to Rod and Sharron for a most enjoyable day and unusual field nats outing.

Janet Fenton



*Stephanopis lata*  
Photograph: Geoff Carle



Geoff with rocks  
Photograph: Jean Rothero



The 2020 Australian Cave Animal of the Year is Australian cave crickets, not a single species but a whole family! There are 22 described species of Australian cave crickets and collectively they are the 2020 Australian Cave Animal of the Year. Australian cave crickets have an extensive family tree with eight genera within the Australian Rhabdophoridae family (pronounced Rap-hid-o-phor-idea).

This year, we've added 'Australian' into our program title as Cave Animal of the Year campaigns are gaining momentum. The German Speleological Society commenced their program in 2009, Australia and Italy followed suit in 2019, our Swiss speleological colleagues have just advised that their web page is up and running and efforts are underway for a US program. These programs are building community awareness of cave animals and the importance of caves as animal habitat. It's great that interest is growing in the generally small and not readily seen animals of the underground.

## **Bushfire crisis and cave animals**

With most of the karst and cave areas in New South Wales, Victoria and South Australia significantly affected by recent bushfires, cave animals will have been impacted. We may never know to what extent as there won't necessarily be pre-fires fauna surveys from all these areas. Besides the obvious fire-damage to above-ground vegetation, ongoing hot and dry conditions mean less moisture in cave areas and any water there will be contaminated by smoke and ash.

## **An introduction to cave crickets**

Antennae which can be more than twice the length of their bodies are the most notable feature when looking at a cave cricket. These long and very elegant-looking antennae allow cave crickets to detect food, mates and predators by sense.

Cave crickets typically respond to perceived predators by jumping towards them. A cave cricket's jump is akin to a dog's bark or a lion's roar. It might not intimidate a human being in a cave, but it might put off a predator that might otherwise snatch the

cave cricket for a meal.

Food is limited in the cave environment and cave crickets can't be too fussy about their diet. Their menu includes plant material and animals both alive and dead, including injured cave crickets. They generally leave the cave at night to forage for food in the above-ground environment. Cave crickets store protein in their hind legs and, if food is scarce, they may eat one of their own hind legs. (They may also sacrifice a hind leg to evade predation by another animal. Survival is key.)

By feeding outside the cave, cave crickets bring energy into the cave and are a 'keystone' species for life in the cave, especially in caves without resident bats.

Female cave crickets have an ovipositor between their hind legs and deposit their fertile eggs from this. The eggs are the size and shape of a grain of rice and a single egg is deposited into a small hole dug into the cave substrate. The ovipositor may have up to seven small 'teeth' and with these the female can dig her ovipositor into the rocky cave substrate to deposit her egg.

Other types of crickets might chirp, but cave crickets do not and cannot. Everyday male crickets chirp their mating call by rubbing their wings together. Cave crickets do not have wings and are deaf. Instead male cave crickets use abdominal vibrations to signal to females in courtship.

## **Our 2020 Australian Cave Animal Merchandise**

Our posters, bookmarks and stickers are works of art and our 2019 products all won competitive awards. Bookmarks and stickers are free of charge and readily available.

We can supply a poster if you can display in a public site. Outdoor gear shops, libraries, school science labs, Scout and Guide halls and the like would all make great display areas. We would love to hear from you if you can display a poster and so help tell others about the wonders of cave animals.

To obtain merchandise, please contact us at: [hello@caveanimaloftheyear.org.au](mailto:hello@caveanimaloftheyear.org.au)

## **References and more information**

You can help raise the profile of cave animals by promoting the website and by liking us on Facebook. The website has links to caves cricket information and to overseas Cave Animal of the Year programs. <https://www.caveanimaloftheyear.org.au/>

Meanwhile, thank you for your interest and all the very best with your own field naturalist projects.

**Cathie Plowman (Northern Caverneers)**



Field Nats at the Christmas BBQ at Waterworks Reserve.  
Photograph: Amanda Thomson

## TFN Christmas BBQ

**Saturday 7 December 2019**

The traditional Christmas BBQ was held at the Waterworks reserve. As is evident from the photograph, the weather was unseasonably chilly, wet and windy. Nevertheless a group of Field Nats gathered in the shelter hut, dashing in and out from its protective cover to cook their lunch, and sharing an array of delicious Christmas sweets and cakes.

Usually on these occasions there will be a foray into surrounding bush, but on this day only a few hardy souls undertook a quick circumnavigation of the reservoir lake, and then we all went home. We look forward to better weather for the many excursions scheduled for 2020.

## Library corner Archives

The slides and black and white prints taken by Alan Hewer (1917-1999) who was one of our previous Presidents, that were donated in 2018-2019 to the Club by his family, have now been digitised and the originals have been deposited into the Archives of Tasmania. A selection of these photographs will be found on the TFNC website in the next few weeks in the Archives section.

See: <https://www.tasfieldnats.org.au/archives/>

Has anyone noticed in the rolling banner of our website that there is now a photograph of the

TFNC flag? (Did you know we had one?) Photograph courtesy of Alan Hewer! The original flag is stored for us safely in the Archives of Tasmania.



## Library

**HAPPY NEW YEAR!** Here is a gentle reminder to all those you have borrowed books from the TFNC Library that they are **ALL due for return please** at our meeting on 6 February 2020.

If this is a problem please email me at [librarian@tasfieldnats.org.au](mailto:librarian@tasfieldnats.org.au)

The TFNC Library book catalogue has been updated and it can be found on our website at

<http://tasfieldnats.org.au/library/>

All our books are available for borrowing by members!

## Book accessions since October 2019

**'Child of Gondwana: A guide to the Geology of Tasmania for everyone.**

**By Keith Corbett.** Forty South Publishing Pty Ltd 2019.

This book provides explanations for both many of the uncertainties about Tasmanian geology which have now been clarified by ongoing research and good field studies and Tasmania's place in Gondwana. The simple basics of geology; the main rock types, the main processes in their formation, the basic landscape forms and how they are produced are explained in easy to read and understandable style.

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**'A Naturalist's Guide to the Insects of Australia'**

**By Peter Rowland & Rachel Whitlock.** Australian Geographic & John Beaufoy Publishing 2019.

Kindly donated by Kristi Ellingsen who has a number of photographs in the book. An easy to use identification guide covering 292 of Australia's common and iconic insect species. For each family, genus or species. the authoritative text describes identifying features, distribution, habitat and habits.

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**'Dragonflies and Damselflies of Victoria and Tasmania.**

**By Reiner Richter & Ian Endersby.** Entomological Society of Victoria in 2019.

All known species from Victoria and Tasmania are presented in this book, beautifully photographed in their natural habitat. Includes distribution maps, flight times and information for field identification.

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**'The Complete Field Guide to Dragonflies of Australia.'**

**By Gunter Theischinger & John Hawking.** CSIRO, 2016.

A comprehensive, user-friendly guide to Australia's dragonflies and damselflies, with full colour images and distribution maps, this book covers 30 families, 100 genera and 324 species found in Australia. It includes identification keys for adults and for their larvae, commonly known as 'mud eyes' and often used as bait for freshwater fish. Dragonflies are valuable indicators of environmental well-being and their extraordinary diversity will interest entomologists and amateur naturalists alike.

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**'The Seashells of Tasmania: a comprehensive guide: 2nd Edition.'**

**By Simon Grove.** Taroon Publications and TFNC

Comprehensive coverage of all Tasmanian species over 10mm in length. Illustrates 364 commonest species, 442 species covered overall. Ideal for beachcombers, naturalists and biologists.

**'Bird Bonds: Sex, mate-choice and cognition in Australian native birds'.**

By Gisela Kaplan. Pan Macmillan Australia 2019. Reviewed by Els Wakefield in the 2019 'The Tasmanian Naturalist', then donated to the TFNC Library.

**Annabel Carle (TFNC Librarian)**

## Butterflies workshop

**February 1, 9am-2pm**

**Chris Sanderson** from the **Research School of Biology**, The Australian National University, will be conducting a free workshop at the Tasmanian Museum and Art Gallery. The Butterflies Australia Project is a grant-funded citizen science project that has produced a free app for anyone who is keen to contribute butterfly sightings for research and conservation. The workshop will focus around identifying local butterfly species, how to do a butterfly survey, and how to use the free app and website. Check [www.butterflies.org.au](http://www.butterflies.org.au) for more information, or links to download the app.

The event will include talks from Dr Michael Braby, one of Australia's top butterfly researchers and author of the Complete Field Guide to the Butterflies of Australia, Dr Suzi Bond, author of the Field Guide to the Butterflies of ACT and manager of an impressive butterfly citizen science project, as well as local experts Phil Bell and Dr Catherine Byrne.

Although the workshop is free, you will need to register through the Eventbrite booking site:

<https://www.eventbrite.com/e/butterflies-australia-ho-bart-workshop-tickets-85956659683>

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## Congratulations Simon Grove

Congratulations to member Simon Grove, recipient of the Australian Natural History Medallion for 2019.



# ANNUAL GENERAL MEETING

Tasmanian Field Naturalists Club Inc – GPO Box 68, Hobart, Tas 7001

## Annual General Meeting and Election of Office Bearers

The 2020 AGM will be held on Thursday 5<sup>th</sup> March in the Life Sciences Lecture Theatre at the University of Tasmania. The President's Talk will be at 7.30 pm, followed by the AGM then a General Meeting.

Nominations are called for the following office bearers:

President  
Vice President  
Secretary  
Treasurer  
Bulletin Editor  
Walks and Talks Co-ordinator  
Librarian  
Naturalist Editor  
Three (3) Committee Members

Nominations should reach the secretary at the above address by Monday 24<sup>th</sup> February, or be delivered in person to the secretary immediately prior to the start of the AGM. A nomination form is attached below, but any written nominations will be accepted provided they contain the same information as in the official nomination form.

Nominations can also be emailed to [secretary@tasfieldnats.org.au](mailto:secretary@tasfieldnats.org.au) and the agreement of the nominee will be confirmed prior to the AGM.

Tasmanian Field Naturalist Club Nomination for \_\_\_\_\_  
(position)

Name \_\_\_\_\_ Nominated by \_\_\_\_\_

Seconded by\* \_\_\_\_\_ Accepted \*\* \_\_\_\_\_

\*If this is left blank the secretary will seek a seconder from the club membership

\*\* If this is left blank the person being nominated will be asked at the AGM if they accept the nomination.

# Federation of Field Naturalists Clubs of Tasmania Meeting

**Bridport 11-13 October 2019**

**Host: North-East Tasmanian Field Naturalists Club Inc.**

The Federation of Field Naturalists Clubs of Tasmania (FFNCT) was formed in 1954 when it acted both as an environmental lobby group and as an avenue for members of the various field naturalists' clubs from around Tasmania to meet up twice a year, each club taking it in turn as the host. These days, once every two years, alternating with the Australian Naturalists Network (ANN) meeting, the various Tasmanian field naturalist clubs meet up, giving the host club the opportunity to show off their region and for participants from around the state to share knowledge and experiences.

The North-East Tasmanian Field Naturalists Club hosted the most recent meeting in October 2019. Twelve TFNC members attended.

On Saturday Mike Douglas led a fascinating walk around the 4km Pleistocene Dune Circuit in the Waterhouse Conservation Area (WCA), during which we learnt about the formation of the dunes and changing sea levels in Pleistocene and Holocene eras.

This walk first headed inland through dense forest of drooping she-oaks, much of which grew after severe fires about 15 years ago. There is evidence of re-occupation of the WCA by Aborigines around 6500 BP. It appears that a combination of frequent burning and salt-laden winds put paid to the eucalypts within much of the reserve, resulting in the heathland and she-oak communities seen today. Our route continued to an ancient east-west longitudinal dune formed during the last glacial advance, which is now dotted with many varieties of interesting heathland plants. Plants found on our walk included a beautiful yellow-flowered Twisted Sun Orchid, *Thelymitra flexuosa*; Swamp Boronia, *Boronia parviflora* and the vulnerable Chaffy Bushpea, *Pultenaea sericea*.

On Saturday night we reconvened for a delicious meal catered for by the members of the N-E Field Nats at the home of their Secretary Lou Brooker. On Sunday morning we all visited the 240 hectare property at Little Pipers River belonging to NE Field Nats Member Scott Bell. This is protected by a Tasmanian Land Conservancy Covenant and we were able to see inside the 22 hectare Tasmanian Devil free-range enclosure established within Scott's property under a contract with DPI/PWE to provide a safe place for healthy Tasmanian Devils to breed, with no risk of exposure to the devil facial tumour disease.

We also saw on this property the Shiny Grass-tree, *Xanthorrhoea bracteata*, which grows only in the North-East, and is classified as Endangered under the Environment Protection and Biodiversity Conservation Act.

An excellent weekend ended with lunch at Scott Bell's property with fresh locally caught fish. We thank the N-E Tas Nats for their wonderful hospitality and for showing us a little of the North-East of Tasmania. We look forward to returning to the area to see a little more for ourselves.

**Annabel and Geoff Carle**



*Thelymitra flexuosa* Twisted Sun Orchid  
Photograph: Geoff Carle

## About The Tasmanian Field Naturalists Club

We encourage the study of natural history and support conservation. People of any age and background are welcome as members.

For more information, visit our website

<https://tasfieldnats.org.au/>

or email [secretary@tasfieldnats.org.au](mailto:secretary@tasfieldnats.org.au) or

write to: GPO Box 68, Hobart, 7001

### Subscriptions are:

Family \$35

Single \$30

Single Junior or Concession \$25

### Three ways to pay:

by cheque to the Club address,

by Paypal (follow the links on our website or EFT to the Club account:

BSB 067 102 A/c 28000476.

This Bulletin is published quarterly and mailed or emailed to all members.

Editor: Deirdre Brown

Your articles and photos for the Bulletin are welcome. Please email to the editor at

[tfn.bulletin.editor@gmail.com](mailto:tfn.bulletin.editor@gmail.com)