



Toodyay Naturalists' Club Inc.

THE TNC NEWSLETTER

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wheatbelt
natural resource
management

PRESIDENT'S REPORT

by Brian Foley

THE NEWLY OPENED Drummond House - Toodyay Environment & History Centre has allowed us to have a central location in town, along with the Friends of the River and the Historical Society. Bob, the Red-tailed Black Cockatoo has, on a couple of occasions, noisily welcomed people into the building.

Noted entomologist, Paul van Heurck, who led a wonderful 'bug searching' walk during the 2015 Bioblitz held in Toodyay, was our guest for the May excursion with a walk through the Dawn Atwell Reserve searching for bugs in a previously 'patch burnt' area. That evening Paul gave an explanatory presentation at the CWA Hall.

The June meeting was a talk by local Colin Fleay, owner-operator of Bee Happy apiary. My first thoughts were that I would not find much of interest but it turned out that Colin is a very good speaker with many funny stories and one of our best nights.

Dr Liz Kington was guest at the July meeting to give her presentation, as the newly contracted West Australian officer of the National Malleefowl Recovery project, of working in partnership with Melbourne University. Liz is also assisting the Malleefowl Preservation Groups of the state.

The Annual General Meeting, held in August, was at the member's home of Don and Eva Smith with Patron and Honorary Life Member, Dr Neville Marchant as Returning Officer. I accepted the nomination of President for the 2017/18 year and look forward to working with all the Committee and feel we will, again, have an interesting year. Again, thanks to Wayne and his secretary, Vice Pres, Desraé, and Treasurer, Sharon.

Prior to the Annual General Meeting the thirty one members and friends enjoyed a botanical excursion over Eva and Don's property.



Above: Drummond House eremophila garden.

Cover photo: Hairy caterpillars [see 'Did You Know' on Page 9]

Photo: Desraé Clarke

Photo: Bev Casey

NOT JUST ANOTHER BIRTHDAY

by Greg Warburton

2017 HAS PROVEN to be a year of birthday milestones for a number of my colleges and fellow community members, including myself. As the date drew closer my wife, Vicki, indicated to me my birthday celebration was to be a surprise. I was even more intrigued and excited when she said “pack your bags we are going to the airport”. Finally, the secret destination was revealed when I received my boarding pass. Written on it was - Learmonth. The penny dropped - we were going to swim with the Whale Sharks, a long-held item on my wish list.

I looked down on the extraordinary landscape of Cape Range and Exmouth Gulf as the air craft approached the airport in the morning light.

It was the middle of the school holidays and extremely busy with hundreds of tourists in town. The first thing that struck me about Exmouth was that it was plastic bag free. The two IGA's, coincidentally owned by relatives of a well known Toodyay farming family, were almost over-run with customers but all of them with their cloth bags or card board boxes. This was a community that obviously put a lot of value on their unique natural environment. Entry statements and public art represented the range of natural wonders found in this special part of the world.



In 2011 600,000 hectares of this region was awarded world heritage listing. Despite nearby oil and gas drilling the natural beauty and bio-diversity of Cape Range and the Ningaloo Reef received global recognition in what has not only ensured its protection but has provided a boon for tourism.

Exmouth offers everything for the visitor such as spectacular gorges, limestone caves and, of course, the famous Ningaloo coral reef just off the pristine beaches. The coastal waters are home to a range of marine life from colourful

coral fish, Green Sea Turtles to gargantuan Humped-backed Whales.

The most famous denizen of these pristine waters is the perfectly named Whale Shark *Rhincodon typhus*. Being the largest fish in the world it automatically enjoys iconic status. Solitary in their migrations that criss-cross the Indian Ocean these giant filter feeders aggregate at Ningaloo in autumn and early winter. This natural phenomenon provides an incredible opportunity for people to get up close and personal with a Whale Shark.

However, to do this is not cheap and requires an almost military-like operation with purpose-built vessels and aircraft. However, the paying customer is not assured of seeing a whale shark but on the day of our tour we swam with no less than three! The process to experience this is subject to strict protocols to minimise disturbing the sharks but, with luck, rewards are there. To be in the presence of such magnificent creatures, with the turquoise of the ocean and dappled light playing on their beautiful spotted markings, was a privilege and an unforgettable birthday. A bonus for this extraordinary day was to witness a mother humpback whale with her new born calf.

Excursion with Dr Neville Marchant

by Desraé Clarke

It was a tad worrying to awake to a rainy and dismal day on which to hold the 2017 Annual General Meeting preceded by a walk over the interesting property of Eva and Don Smith. However, the day progressed to become calm and sunny for all to enjoy a botanical feast in the company of botanist, Dr Neville Marchant AO, and his wife, Denise.

Neville and Denise joined the Toodyay Naturalists' Club in 1972, four years after its inception, with Neville a long-time patron of the Club and an Honorary Life Member.

Prior to leaving Eva and Don's home and partaking of the most delicious 'bring and share' lunch, Neville introduced the participants to the wonderful tool of NatureMap. This tool gives a list of Herbarium and Museum records for a selected geographic area.

The following quote is Neville's introduction to the use of NatureMap.



Above: Patron , Dr Neville Marchant AO testing his prowess using NatureMap.

Photo: Desraé Clarke

“NatureMap was initially developed in the WA Herbarium to provide information on what species had been recorded for particular areas of Western Australia utilising the vast amount of information on plant, fungi and lichens, etc, made available by FloraBase.

The current total number of records in the Herbarium totals over three quarters of a million specimens.

The digitalised records of the WA Museum collections and many plant and animal surveys were made accessible to NatureMap so that it could deliver information on specimen records of animals, as well as plants, fungi, etc in Western Australia”.

NB Neville has left data with the Club Secretary for members to further explore, at their leisure, this powerful tool so please feel free to make use of it.

Although there were not a lot of plants in flower along the track member, Beth Frayne, listed plants sighted.

It was a tad early for the orchids to be flowering although the Greenhood Orchid was plentiful with many sporting very long stems. Donkey Orchids in flower were rare and two 'practically spent' Hare Orchids were found hidden in litter at the base of a Marri. A Spider Orchid with several heads was unable to give a clue to its identity as it was very immature and a single *Caladenia flava* and an un-opened blue Orchid were sighted.

Neville spoke at length on the change of the Jarrah (*Eucalyptus marginata*) which is at its most northern point of its area. The trunks are many stemmed and the leaves described as 'glaucus' meaning they are covered with a protective wax making the leaves appear a bluish grey; it could be a subspecies of the Jarrah.

Neville also mentioned the incredibly heavy flowering of the Marri (*Corymbia calophylla*) last year. We passed by one large old, knarled Marri badly stricken with the parasite, Mistletoe, that was taking its nutrient. A large heavy branch of the parasite, covered in lichen, had broken from the main tree demonstrating the weight that eventually develops.

Leschenaultia plants abounded in disturbed areas with a promise to be a glorious blue showing and a small pink Boronia plant gave Neville the opportunity of speaking of the identification of Boronia as having a four-petalled flower.

Daviesia plants were covered in their pea flowers of beautiful 'egg and bacon' colours and, although frightfully unfriendly with their spiky leaves, were a wonderful additive to the landscape. Tiny prostrate plants of yellow and brown and plain yellow pea flowers were observed among the understory.

Neville explained the sequence of the spent seed head of a *Patersonia occidentalis*. The flower lasts for one day only but there is a succession of flowers over a number of days. Once finished the seeds are dispersed by the wind but they do not have a 'wing' for that dispersal.

Hibbertias are just in the process of blooming as were several species of Acacia with a particularly dainty low-growing plant with large flower heads for the size of the plant.

The tiny Blue Squill was extremely plentiful but the equally beautiful purple flowers of *Hovea trisperma* were just opening.

The large Jacksonia shrub was an item of interest as it has another name - Stinkwood! As Neville said "it certainly is an apt name when burnt!"

Other plants observed and discussed during the walk were hakeas, *Xanthorrhoea preissii* (Black Boy or Grass Tree), Grevilleas, *Baeckea*, *Zamia Palm*, Droseras, Lichen, *Pimelea*, *Darwinia*, *Allocasurina*, *Daviesia*, *Leptospermum*, *Dryandra* (and the name change to *Banksia*) and *Synaphea*.

Neville gave interesting information on the pronunciation of botanical names stating that all the letters are pronounced with *Marchentii* an interesting example. We usually would say **Marchentii** but the Latin pronunciation is **Marchentii** with the emphasis on the second part of the word and the pronouncing of all the letters.

The property of Eva and Don has a wonderful coverage of wildflowers, shrubs and trees with the added wonder of wildlife free to roam; the notable Chuditch is a frequent visitor. The property is registered with Land for Wildlife and lives up to that title

2017 WESTERN AUSTRALIAN LANDCARE AWARDS INDIVIDUAL LANDCARER AWARD - ROBERT BOASE

The Toodyay Naturalists' Club is delighted to announce that Club member and 2017-18 committee member Robert Boase has won the *Individual Landcarer Award* in the *2017 Western Australian Landcare Awards*. Congratulations are extended to Rob, and to his wife Beth, on this well-deserved and long-overdue award.

Rob set off on 20 July 1968 to attend the TNC's first meeting, and to join, but could not find the venue. Although missing out being an inaugural member, his second attempt to join was successful.

The citation reads:

"Since the 1970's Rob Boase, along with his wife Beth, has been committed to protecting the unique, rare and amazing flora and vegetation of the Western Australian Wheatbelt.



Rob is recognised as being one of the leading experts in the Wheatbelt on its unique flora, in addition to protecting the remnant vegetation of his property at Dowerin through Landcare activities and placing a conservation covenant on the property.

Through his nursery, *Arinya Plants*, Rob has supported revegetation across the Wheatbelt, by cultivating some of the more difficult species. He has been

responsible for his own planting of over 78,000 plants from his nursery and has participated in groups such as the Central Wheatbelt Threatened Flora Recovery Team, Wheatbelt NRM and the local Landcare group.

Rob is currently assisting with the cultivation of some lesser known bush tucker species for the Aboriginal NRM Program.

Rob and Beth's property at Dowerin is a testament of how to conserve fragmented vegetation in the Wheatbelt, whilst Rob's initiatives have resulted in his position as the custodian of an important wetland which supports a number of threatened species."

[N.B. Rob's family have been wonderful supporters of the TNC over the years, with both his mother and (late) father, Fred and Beryl, sister Janette, and son Craig all being enthusiastic members; Janette is a past President and his parents were made Honorary Life Members of the Toodyay Naturalists' Club in 1995]

CONGO-LINE GRUBS

by Robyn Taylor

My fascination with these grubs began back in May this year. While taking Jesse on his early morning walk along the gravel part of Drummond Street, I was perturbed by what I thought were the remains of the pelt of a silver-grey tabby cat. It was roughly circular in shape with a 'tail' and partly buried in the gravel. As the rays of the rising sun reached the pelt, parts of it started to move. The tail gradually stretched out and what had been a relatively thick mass, started to thin out into a single line with a leading grub in front. Their hairs are so long they had meshed together to give the impression of an animal pelt. I had seen these grubs before going nose to tail in a congo-line, and often wondered where they were off to and why.

Congo-line or Processionary grubs, are the larval stage of the Bag-shelter Moth (*Ochrogaster lunifer*), and around May they start to pupate. They move around in large numbers, the long hairs of each individual being locked with those in front and behind, with each laying a silk thread from the spinneret near their mouth. This was evident when looking up Drummond Street towards the sun as it was rising. The rays glinted off the numerous threads that stretched across the road along several miniature trenches formed by thousands of little marching feet. A large number of groups must have been on the move since late afternoon the previous day, as the threads were unbroken. Later in the day, there were numerous squashed grubs on the road where vehicles, and probably school children, had made short work of the congo-lines.

Previously I had only seen these Processionary grubs two or three times a year, but during May and June this year they were everywhere, including in my garden, where I found another nest of grubs around sunset settling down into a depression in the soil. The following day they were in the laundry and under the washing machine. Apparently when a line is broken the grubs get confused about where they should be going.

They like to feed on acacia leaves, jam being a favourite, and this grows in abundance in Toodyay. According to some sources they group together at the base of a tree in a nest of silk and leaf litter and feed at night. My limited experience suggests they nest anywhere, and not always in a convenient location.

Scientific data: TNC Patron, John Dell AO.



Above: Grub nest in garden



Above: Furry train

Photos: Robyn Taylor

Australian Naturalists Network

2018 Get-together - Victoria

The Australian Naturalists' Network (ANN) meets biennially in a nominated State with the forthcoming hosts to be the Victorian group, the South East Australian Naturalists Association Inc. The ten day programme commences at Hall's Gap on Saturday 29th September to conclude at Anglesea on Monday 8th October. The dates fall in the middle of the spring season in southern Victoria when many local communities hold native flower shows.

In 2014 Desraé and I attended the 'get-together' in Kingston, an area 11kms from Hobart - it was an excellent experience! The 2016 hosts were the WA Naturalists' Club members with the Toodyay Nat's taking attendees on a visit to Wongamine; the Toodyay Branch of the CWA provided both morning and afternoon teas for the visitors.

The comprehensive programme begins with registration and dinner on the Saturday. A visit on the Sunday is to the Southern Grampians and to the Northern Grampians the following day. Tuesday 2nd October, the last day to be spent in the Hall's Gap area, is a visit to Lake Fyans, Pomonal.

Leaving Hall's Gap on Wednesday, 3rd October, the next destination is via the volcanic plains to Warrnambool to stay overnight at Deakin University.

On the Thursday the group travel the scenic Great Ocean Road to stay for the next four nights in the Anglesea YMCA Camp. Friday morning is 'free time' with a visit to the You Yangs in the afternoon and Mt Rothwell to observe nocturnal animals in the evening.

Friday will be a visit to Bellarine Peninsular, Queenscliff and Mud Island with botany enthusiasts enjoying the Anglesea Heathland on Sunday.

Monday is the departure date following breakfast.

If you would like further information your queries can be directed to:

John Gregurke email: jgregurke1@bigpond.co T 0408 353 671 or

Geraldine Harris email: gedharris49@gmail.com T 0407 663 109

Malleefowl in June

by Sharon Richards

On the June long weekend I was fortunate enough to be invited to go to the Helena Aurora Range with friends who were off camping.

During our drive in to the camping area, between Southern Cross and the campsite, we stopped to look at some sandalwood bushes; I'd never seen them in the wild before and my friends were trying to educate me. As we happily took in the glorious scent of sandalwood away out in front on the track a bird emerged, slowly crossing over the track, not in any rush despite the fact it was quite exposed and there it was, my first ever Malleefowl in the wild. What excitement and also consternation as my camera was tucked away in the trailer and all I had to capture this moment was the phone camera! Never mind, at least the lovely Malleefowl was seen and the long distance photographic record is amongst my WA bird collection.

The weekend proved to be very rewarding with all the beautiful peeling salmon gums, the magnificent view from the top of the range and some shy but very beautiful Major Mitchells just outside the almost abandoned town of Bullfinch.

It may be a long drive for the weekend but it is a beautifully diverse area and well worth the effort.

THIRD GENERATION TOODYAY APIARIST

Colin Fleay

COLIN FLEAY, a third generation Toodyay apiarist, owning and running 'Bee Happy' was welcomed as guest speaker for the June meeting. He was been described, by one national inspector for the organic industry, as 'one of the best beekeepers in Australia'.

Colin is chairman of the Department of Agriculture and Food's Bee Keepers section. He has also been instrumental in maintaining the Queen Bee breeding program on Rottnest Island, 'Better Bees', which sustains the longest closed breeding population of honey bees on the planet!

Colin played a pivotal role in the establishment of a new peak body for the different bee keeping organisations in Western Australia, the Bee Industry Council of WA (BICWA), and is chairman of the body. Working closely together, BICWA and Curtin University gained a \$500,000 grant from the Western Australian Government for research into Jarrah and Marri Honey.

Money follows money and the federally funded Australian Research Council came good with \$7.5 million for further research into bees, with the University of Western Australia (UWA) at the centre of that research with the *Better Bees* program a key component of that research.

At the practical level, Colin is known for having calm and friendly bees and producing delicious honey! Colin and Ruth established Uniquely Toodyay a few years ago in the old Toodyay Post Office building knowing it as an outlet for local produce including Bee Happy honey and crafts.

Below: Bee Happy Honey & Crafts display in Old Post Office, Toodyay

Photo: Desraé Clarke



DID YOU KNOW...

... the caterpillars on the front cover are the larvae of a Sawfly Wasp. They are stingless and the female has a saw-like ovipositor (the egg-laying apparatus of female insects, concealed in some orders, and very long and conspicuous in others, e.g. wasps and crickets) for cutting a slot into a leaf to deposit the eggs. They mostly feed on native trees usually eucalypts and come to the ground to pupate underground. They are commonly called spitfires because they spit eucalypt oil when disturbed.

[Information supplied by Patron John Dell APSM]

Photographer's Pages



Above: The beautiful Hovea nitens

Photo: June Emerson

Below: Common brushtail possum with young, enjoying some fruit

Photo: Wayne Clarke



Photographer's Pages



Above: Malleefowl crossing the road

Right: Trees in Malleefowl country, near the Helena Aurora Range

Photos: Sharon Richards



Above: From left - Denise and Neville Marchant, Brian Foley, Margaret Redfern, Sharon Richards, Victoria Fernandez and right (seated) Bob Frayne, at the TNC Annual General Meeting in August.

Photo: Desrae Clarke

ENVIRONMENT MATTERS

A CONTAINER DEPOSIT SCHEME BY 2019?

The Department of Water and Environmental Regulation (DWER) has released a Discussion Paper on a proposed container deposit scheme (CDS) in Western Australia. The State Government is committed to the implementation of a CDS, with plans to start in January 2019.

DWER is seeking feedback on the CDS, and will compile and analyse submissions before making recommendations to the Minister for Environment. The submission period is open for an eight week comment period closing on 23 October 2017.

You can download the discussion paper at www.dwer.wa.gov.au/cds.

It is proposed that the scheme will compliment the Waste Authority's *Waste Strategy: Creating the right environment* and the Keep Australia Beautiful WA (KABWA): *Litter Prevention Strategy for Western Australia 2015-2020*

The Toodyay Naturalists' Club registered an *Adopt-a-Spot* with KABWA in 2010, and will be developing a submission. Written submissions can be lodged by email (at [cgs@dwer.wa.gov.au](mailto:cds@dwer.wa.gov.au)) or online submissions can be made through the website above.

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THE TOODYAY NATURALISTS' CLUB INC.

PRESIDENT: Brian Foley 9574 5448 **VICE-PRESIDENT:** Desraé Clarke 9574 5574
SECRETARY: Wayne Clarke 9574 5574 **TREASURER:** Sharon Richards 9574 5723
OBSERVATIONS OFFICER: Wayne Clarke 9574 5574 **PROJECT OFFICER:** Greg Warburton 9574 5445

ADDRESS: Post Office Box 328, Toodyay. 6566

NEWSLETTER EDITOR: Desraé Clarke [Format by Wayne Clarke]

email: info@toodyaynats.org.au

Website www.toodyaynats.org.au

Drummond House - Toodyay Environment & History Centre: 108B Stirling Terrace, Toodyay (next to the Bendigo Bank). Opening hours Saturday 10am - 2pm. Sunday Market Days 10am - 12pm