



Toodyay Naturalists' Club Inc.

THE TNC NEWSLETTER

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wheatbelt
natural resource
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PRESIDENT'S REPORT

by Sharon Richards

Looking back across the first four months of the year we have already achieved so much. Our club meetings began earlier than usual this year with the planning meeting in December agreeing to an early start so we could become better informed about the ecological impact of the proposed open cut mine by Chalice Mining in the Julimar area.

Viv Read, David Newsome and Doug Blandford gave great presentations covering the potential impact on all that makes up the Julimar Conservation Park (as it is locally known and signed) and the surrounding area. The land itself would be scarred with an open cut mine not much smaller than the Kalgoorlie Super Pit, the risk to the multiple small waterways running into the Avon and Brockman Rivers, the rare fauna (Carnaby Cockatoos and Woylies to name but two) rare flora and insects and not forgetting the social, psychological and tourism value the area has for the town and all its visitors. It was an incredibly informative but sobering meeting which has led to the formation of an alliance of interested groups in Toodyay who would like to ensure the integrity of Julimar is not compromised by the proposed mining activity. It was agreed that the group would work towards gaining this protection through having the area recognised as a National Park.

In February we were very fortunate to have the renowned volunteers Fred and Jean Hort share their experiences relating to their times visiting and collecting in Toodyay. Their dedication to and love of their task came through clearly in the stories and wonderful photographs they shared. Who would have known we had rare Sun Moths in Julimar, cited by them.

In March we engaged in two events with a very successful litter pick up for Keep Australia Beautiful Day along the Julimar Road near Dawn Atwell Reserve with 15 bags of litter collected amongst which we gleaned 94 containers (Containers for Change) and fortunately only two disposable masks among the rubbish.

Later in the month our friend Mike Griffiths, a familiar face to Nats club members, who has been working in the Peel-Harvey area as a Wetlands Restoration Officer, was persuaded to visit and provide a great presentation about the impact of the development of the Peel-Harvey. Since the 1830s European settlement, the clearing of land for farm development and the interference of the natural waterways, untold damage has occurred to the natural environment and only been recognised in the last 30 - 50 years. Community demands that something be done have resulted in public education, revegetation and ongoing monitoring now being undertaken. Only time will tell how successful this will be. We can but hope that as a society we learn that re-engineering the environment to suit our own purpose can have dire consequences.

Combining a love of history and trees, in April, Max Hipkins walked us through the origins and work of The Tree Society from 1956 – 2001. The forethought and dedication of its founders like Mabel Talbot and members like Peter Thorn who devoted their lives to the cause of conservation in a time when its importance was neither recognised nor acknowledged provided great inspiration and a feeling of sadness that at times today, we still don't always protect this crucial part of our environment.

We have a lot to look forward to in 2022, April has given us a little rain and there are already a few flowers showing their petals. Our excursion to the Dryandra National Park in May is promising to be an exciting couple of days with quite a few members already booked to attend. I'm personally hoping for some numbat sightings and long walks amongst the trees and look forward to seeing you there.

Cover photo: Beth Boase stands beside a three-hundred year old (plus) Salmon Gum remains on the Northam to Pithara (Goomalling) Road, slain by Main Roads contractors under the guise of safety (see article pages 4-5)

Photo Vicki Warburton, 2022-04-06

Jean and Fred Hort

[Notes by Desraé Clarke from a talk by Jean & Fred Hort to the Toodyay Naturalists' Club, February 2022] Jean and Fred retired from their working lives approximately 25 years ago to follow their passion of exploring and photographing the flora and fauna of Western Australia. They are devotees of James Drummond (1786-1863) and great admirers of Dr Rica Erickson (1908-2009).

They are not trained botanists but are authorised collectors of flora for the Department of Biodiversity, Conservation and Attractions (DBCA) WA Herbarium Plant Science Division. They also collect insect specimens for the WA Museum that are shared with CSIRO Canberra and worldwide scientific research institutions.

Plants and invertebrates, previously unknown to science, have been discovered by Jean and Fred with some named after them. They contribute to many flora and fauna research programs with written reports, images and specimens and have been involved in world-wide research on flies with a Chicago scientist interested in their work.

Jean and Fred know the Julimar Conservation Park. Gallager and Anvil Blocks, along with Flat Rock Gully Nature Reserve, demand recognition as high priority flora conservation areas together with neighbouring Bindoon Army Training Area, an area for which they have research permission.

If these two Julimar blocks, together with Flat Rock Reserve, were combined to form one large reserve, included would be stunning land forms with rare and priority flora discoveries that, historically, trace back to James Drummond and the early Swan River Colony.



Above: Meomyia hortorum - a bee-fly belonging to the family Bombyliidae - named in honour of Fred and Jean, is pictured on a native daisy.

Photos: Fred and Jean Hort

Further photographs on page 12

Roadside Vegetation Crisis

by Rob Boase

I think the Club's letter sent to Wheatbelt Natural Resource Management (NRM) outlines our concerns rather well. The alarming increase in the clearing of roadside vegetation throughout the Wheatbelt by both Main Roads Western Australia (MRWA) and local shire councils has to be stopped, or at least drastically reduced! Too often safety is used as an excuse and not as a valid reason to remove our unique roadside vegetation including trees that existed prior to European settlement.

The following is an extract from the Toodyay Naturalists' Club (TNC) letter dated 12 April 2022 to the Wheatbelt NRM Chief Executive Officer, Dr Karl O'Callaghan:

'Revegetating the Wheatbelt'

I have been asked to write to you and express how deeply disappointed the Toodyay Naturalists' Club (TNC) is with Wheatbelt Natural Resource Management (WNRM) promoting the activities of Main Roads Western Australia (MRWA). In the WNRM April 2022 On-line News, information and photographs feature an article 'Main Roads Revegetating the Wheatbelt'. Although alternatives are now being sought to halt this action it is too late for a number of giant, iconic Salmon Gums'.

MRWA are currently clearing old-growth roadside vegetation at an alarming rate. The clear-felling of many two to three hundred year old (plus) Salmon Gums on the Northam-Pithara (Northam-Goomalling) Road in late March and early April are prime examples. It has only been through community backlash that the current programme has ceased (temporarily).

There are alternatives that can be seen immediately leaving the Toodyay Shire, where barriers have been erected instead of clearing.



Above: Sufficient land on either side of the current road could have been purchased by MRWA and the road realigned away from this ancient remnant.

Photo: Vicki Warburton 2022-04-06

Roadside Vegetation Crisis... cont

Although MRWA and Wheatbelt NRM promote the MRWA offsets program as a positive replacement for vegetation removed, this is often far from positive. While the purchase by MRWA of cleared farmland for their offset plantings is certainly to be commended this is not always the case. Sometimes un-cleared land is purchased as an offset. This is usually land that would not be cleared anyway, so cannot be claimed to be a replacement for what was lost.

Main Roads funding would be better spent aligning roads so that offsets are not required, or at the very least, minimized. This was possible with the Northam-Pithara Road and is possible for some sections of the Toodyay-Perth Road.

Where money is to be spent on offsets, their choice should be based on environmental considerations such as the (re-)establishment of wildlife corridors and the protection of riparian zones. They should not be chosen on the basis of the willingness of the landholder to volunteer to sell land.

While MRWA have had some great successes with their revegetation plantings, these cannot even go close to replacing ancient trees with their canopies and associated flora and fauna. Care needs to be taken that promoting MRWA's offsets does not lead to even greater loss from our roadsides. Apparently not all MRWA offset plantings have been successful. I have not seen these sites so cannot confirm if this is fact. However Wheatbelt NRM needs to be very careful when endorsing MRWA offset program, and I feel the Club's letter expresses that well.

A glimmer of hope appeared on Tuesday the 12th of April 2022. I joined Eddy Wajon and Brett Loney, members of the Wildflower Society of Western Australia, Conservation Sub-committee, at an on-site meeting at the road works on the Northam-Pithara Road with the Regional Director of MRWA and the Project Manager. Some more trees have been saved from removal and three more are under consideration. Unfortunately not much hope is held for the three being considered.

If MRWA live up to their promise, there will much more time and opportunity for public consultation in the lead up to future projects. Something that has been sadly lacking up to date!

The Avon Wheatbelt is one of the most heavily cleared IBRA (Interim Biogeographic Regionalisation for Australia) bioregions of Australia¹, with about 85% of the total pre-European native vegetation removed. A majority of the original vegetation, and consequently the vegetation type that was largely cleared, were eucalypt woodlands.

(¹Appendix D: Detailed Assessment of Eligibility for Listing Against the EPBC ACT Criteria D1: Criterion 1 - Decline in geographic distribution).

This appendix presents a detailed assessment of how the WA Wheatbelt Woodland ecological community meets each of the listing criteria.



Left: These once-proud limbs of an ancient tree will probably be chipped or burnt.

*Photo: Vicki Warburton
2022-04-06*

Peel-Harvey Wetlands

by Desrae Clarke

[Notes from a talk by Mike Griffiths to the Toodyay Naturalists' Club in March 2022]

MIKE grew up in the bush of the Perth Hills following his family's passion for natural history. He has previously worked with the World Wildlife Fund (for nature) with Wheatbelt farmers and Noongar families. His substantial contribution to Toodyay was his role to the advancement of the Toodyay Reserve 5273 to be given the name of the Dawn Atwell Reserve, recognising one of the four foundation members of the Toodyay Naturalists' Club.

Mike's current position is that of Wetlands Restoration Officer with the Peel-Harvey Catchment. Mike's attribute of encouraging community engagement to look after our unique environment is his great skill.

Mike began his presentation with the interesting, but often painful, past history of the Peel-Harvey wetlands. The original European settlers of the 1830's, under the aspirations of Thomas Peel, were to develop the area for farming and to build a town to be known as Peeltown.

There was confirmation that original owners of the land, the Noongar peoples, well utilised the area with evidence of fish traps and weirs together with the knowledge that the wetland had plentiful wildlife to sustain them.

The wetlands were not successfully farmed by the English newcomers. The water required removals so drains were dug to, theoretically, have the water enter the Harvey and Serpentine Rivers to eventually make its way to the sea. However, erosion and siltation blocked the outlets.

All manner of ideas, projects, years of surveys and research have been carried out but the changes made in the ecosystem made the situation impossible to return the landscape to its original form.

In 1974 the area around the now changed name of Peeltown to Mandurah had a developing population that became aware of a horrendous STINK from red and green algae and cyan bacteria.

That STINK began the age of Landcare! It had become evident that the natural landscape cannot be drastically altered without severe retaliation!!!

1982 saw the development of three West Australian Land Conservation District Committee groups (LCDC). In January 1990 well-known conservation activist, Keith Bradby, was appointed Agricultural Advisor by Ernie Bridge, Minister for Agriculture and by 1994 there were 350 landcare groups throughout Western Australia. Toodyay's LCDC commenced in 1991 and functioned till 2014!

The Peel-Harvey wetlands are formed of many lakes and waterways and in June 1991 were recognised, internationally, as Ramsar-listed wetlands. In 1997 Keith released the publication '*Peel-Harvey - The Decline and Rescue of an Ecosystem*'.



Above: Mike Griffiths addressing TNC members

Photo: Wayne Clarke 2022-03-19

Flower Beetle

by Jennifer Donegan



The above beetle appears to be a flower beetle, *Chlorobapta frontalis* (Coleoptera: Scarabaeidae) from the *Cetoniinae* subfamily. Rarely encountered in Western Australia but more often recorded from the eastern states, it is a widespread native. The adults feed on flowers and nectar, and are probably important native pollinators in the process. The larvae feed in rotten wood.

Kind regards,

MyPestGuide Team

Photo: Jennifer Donegan 2021-12-29

Toodyay Walk Track Forum

by Lynn and Ian Phillips

Ian and I spent a lovely afternoon at the Walk Track Forum on Sunday 13th March 2022, and afterwards we did some walking at Pelham's Lookout and on the Bilya Walk Track.

The presenters were Greg Warburton (Tooday Shire and TFOR) and Peter Weatherly (Avon Valley Environment Society) and they both spoke about their local projects and asked for future ideas.

From 'little things, big things grow' and now the walk tracks in both Northam and Toodyay have developed to a point, where there is consideration for a Master Plan.

Vicki Warburton raised the idea for a track, all the way along the Avon River from Toodyay to Perth, and it would be named, The Caterpillar Dreaming trail (in recognition of Aboriginal heritage).

Helen Shanks spoke about the Noongar walk trail which is nearing completion, with lovely signage, at the Pelham Outlook. For me, to learn about the indigenous local language is very special.

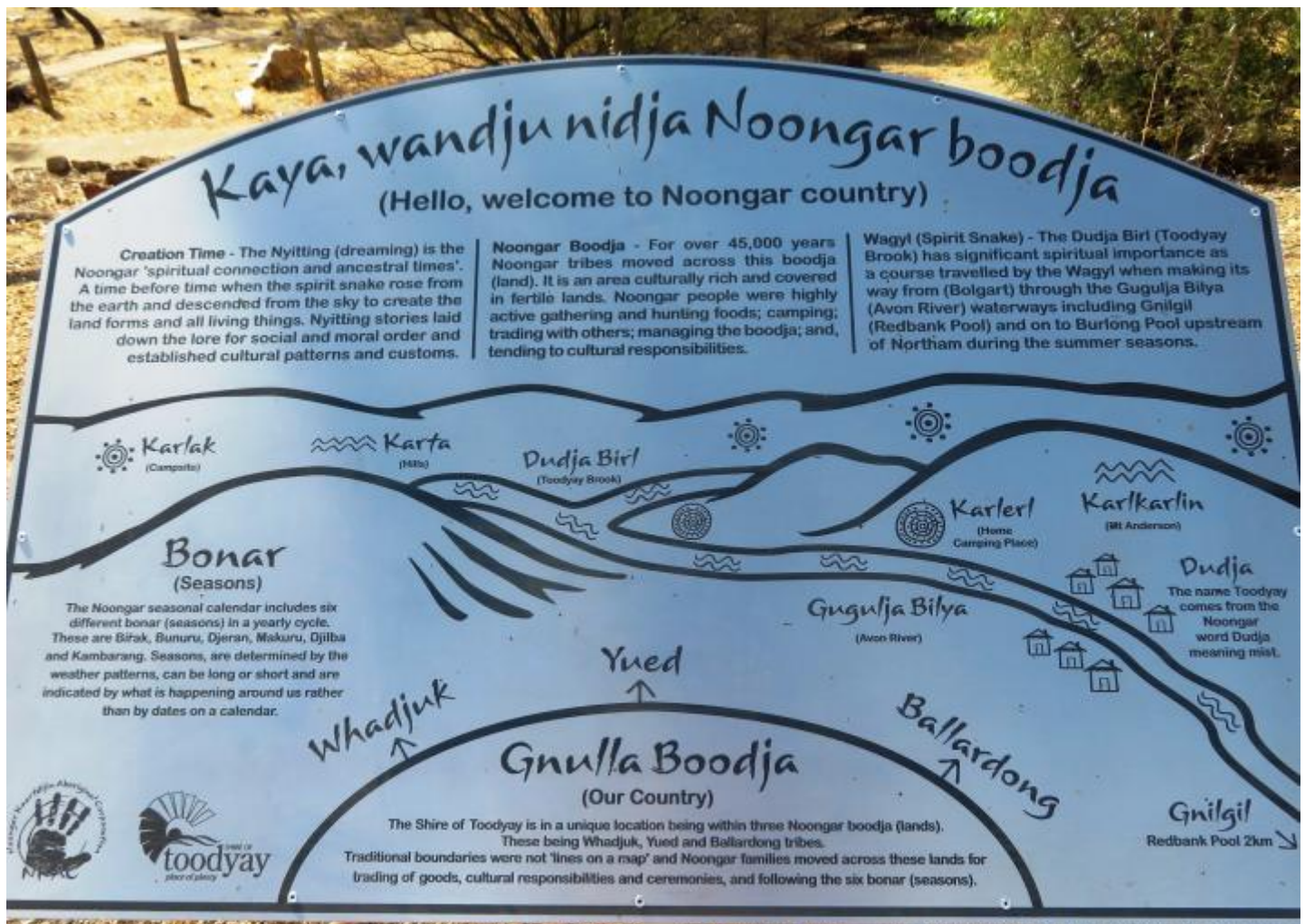


Figure 1 Noongar History of the Wagyl (snake creator) in the Nyitting (dreaming).

Photos: Lynn Phillips

The lively discussion which followed the speakers, concerning Tracks and Trails and their various uses was informative. Concerns were raised about how to make tracks specifically for hiking, mountain bike riding, dirt bike riding, or are horses allowed? Different tracks for different purposes. Some people prefer the tracks to be narrow and unspoilt, and always there will be future care of these paths, with appropriate signage. Guided tours around existing tracks in spring time, was one of the great ideas, I thought.

Here are some photos I took while we were exploring Toodyay, although we have visited both the Pelham Reserve and Bilya walk trail before, but never ventured as far as the Nardie Cemetery. There is much history in Toodyay and from the signage at Pelham Lookout we learnt about 'revetment' or retaining walls, used in WW2 structures.

Toodyay Walk Track Forum ... cont

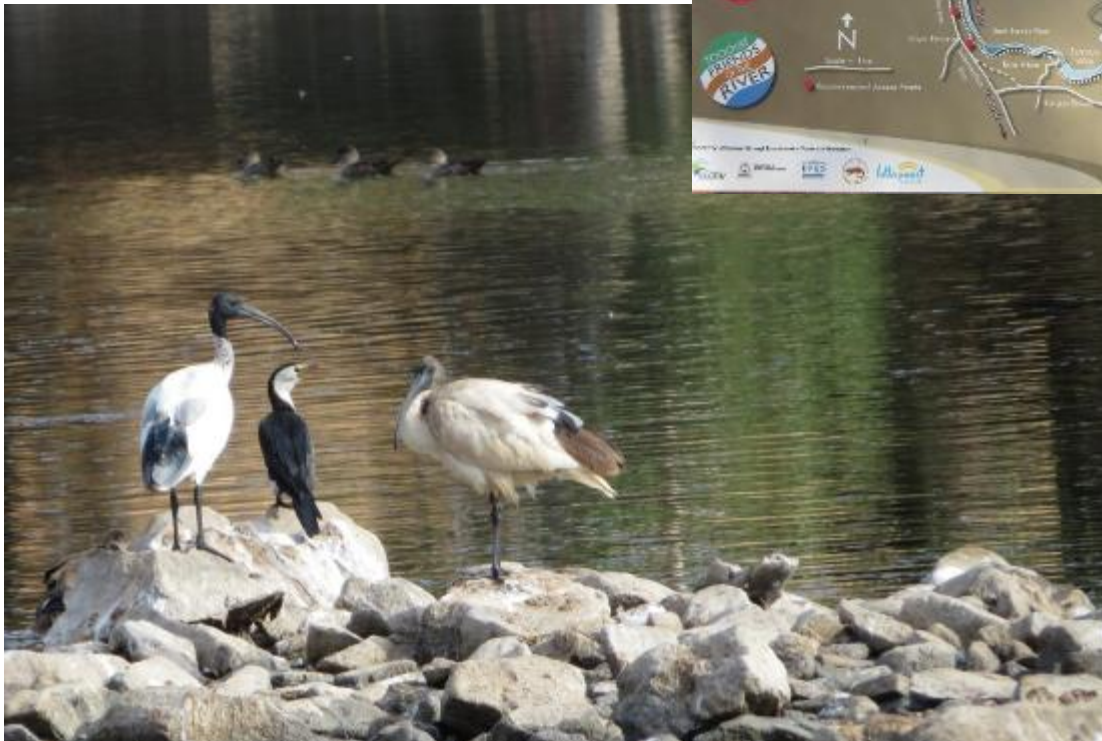
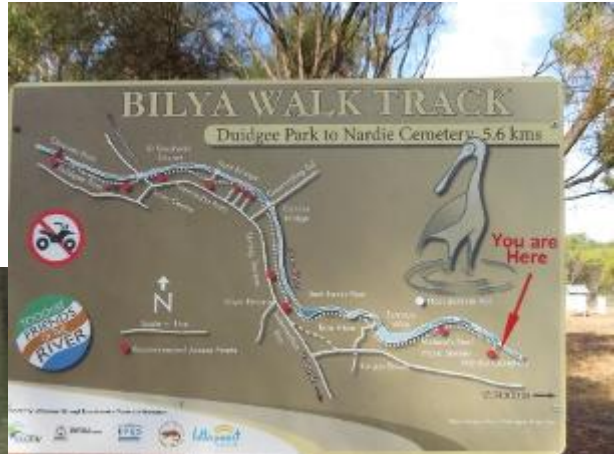
The flies were friendly as usual, and we walked to the Extracts Weir, from a side road, and almost walked to the John Masters Bird Hide. I walked across the Avon River bed as it was dry, and saw the many beautiful coloured stones (including green Toodyay stone, fuchsite or chrome mica, a quartzite), and was reminded of the diverse geological past that caused the formation of many soil types in WA.

It was a peaceful and relaxing walk, with the stillness causing reflections to form on the pools, with great signage.

We visited Nardie Cemetery, first established in 1839, where an infant Isabella Harper was buried.

Right: Map of the Bilya Walk Track

Below: Extracts Weir



Left: The historic Nardie Cemetery, established 1839

The Value of Watering Points



Above: A thoroughly-wet Red-capped Parrot enjoys a last splash while there's still water

Photo: Sharon Richards 2014-12-06



Above: A carpet python takes up quite an area in a water-lily pond.

Photo: Edith Thompson 2021-12-16

The Value of Watering Points



Above: Male Splendid Fairy-wren

Photo: Charmian St. John 2021-12-28



Above: A Brush-tailed possum right in and drinking from a bird bath at 10.12pm with the temperature at 73deg F (or 22.8deg C) 2019-02-08

Photo: Bushnell Sensor Camera- Wayne Clarke

Jean and Fred Hort



Above: Fred with Grandson Jai

Below: A Blue-banded bee hones in on brightly-coloured flower



Member's Gallery



Left: Once again the value of watering points around your property. At left a Black-gloved Wallaby takes advantage of a free offering

Photo: Eva Smith

Below: An historic meeting for the TNC members - all adhering to the 'Mask Mandate' due to the COVID Pandemic.

Photo: Bridget Leggett 2022-02-19



A Wolf Spider Tale

by Robyn Taylor

I first saw her (I assume it is the female that looks after the spiderlings), a Wolf Spider, when she was sheltering inside a nearby planter basket with a huge egg sack, about 1.5cm in length, held between her back legs. It looked much larger than any other spider egg sac I had seen before. I was wondering if I should remove her, thinking of hundreds of hatchlings crawling inside the basket, but decided to leave her in peace.

Next morning, she had moved out and settled on the tile floor between the pot plants. She had unravelled the outer layers of the silk, which is unlike spider-web silk. It isn't sticky and is a bit thicker with almost the strength of a human hair which it resembles. The sac is made of a different sort of material; it is a smoothish, grey ball with what looks like a seam making two halves of the ball; inside is a small mass possibly old eggs that didn't hatch.

She had evidently removed a piece of the sac and hundreds of spiderlings had crawled onto her body. She continued to unravel the egg sac and the 'silk' ended up in a loose bundle drifting around the floor. I collected some of the outer silk and put it into a plastic container.

When she was totally smothered in babies she started moving towards the lounge-room. Richard happened to walk through and she shuddered with half the load dropping onto the carpet and scattering. She stayed a while, maybe allowing some to return to her body, then moved into the dining room where I eventually lost her.

Other spiders I've watched build webs in the ceiling cornice where they hang the egg sac. The spiderlings hatch out and hang about in the web for several days.



Above: Spider with spiderlings on her back, the egg sac under her legs. Photo: Robyn Taylor 2022-04-08

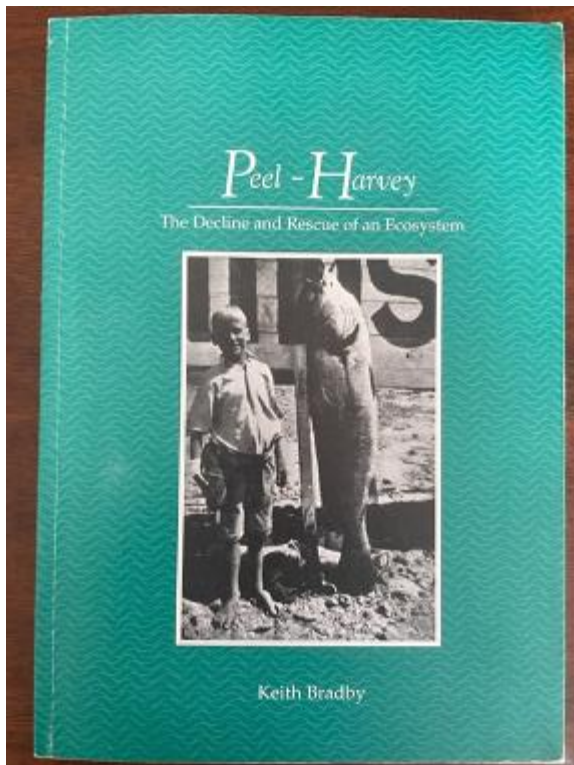
Inset: The egg sac and what looks like human hair

Photo: Wayne Clarke

Book Review: by Desrae Clarke
The Peel-Harvey
The Decline and Rescue of an Ecosystem
By Keith Bradby

This publication is a 'must read' for those who wish to assist in conserving valuable age-old natural history. Keith's publication emphasises what unforeseen disasters can occur in the altering of the natural landscape.

The book describes the severe problems resultant in the Peel-Harvey region, an original significant wetland in the south west of Western Australia. Following land clearing, removal of vast areas of protective waterways vegetation, damming, de-snagging and straightening of major rivers and tributaries and the digging of monstrous drains resulted in a landscape change that had far-reaching, dire effects not ever dreamed of by our society of scientists, economists, agriculturists and community.



Left: Photo Rob Boase

At a cost of \$35, postage included, this publication can be obtained by contacting:

web@peel-harvey.org.au

[Keith collaborated with Frank Rijavec and Noelene Harrison on the Award Winning Documentary 'A Million Acres a Year' - Ronin Films]

DID YOU KNOW...

... the RAMSAR Convention on wetlands of international importance was the first modern treaty between nations at conserving natural resources.

The signing of the Convention on Wetlands took place in June 1971 in the small Iranian town of Ramsar. Since then the Convention has been known as the Ramsar Convention.

The aims of the Convention are to halt the world-wide loss of wetlands and to conserve, through wise use and management, those that remain.

Habitat types can range from rivers to coral reefs, mudflats, lakes, swamps, marshes, peat bogs, billabongs, salt marshes, mudflats, flowing or static, fresh or saline waters.

Under the Ramsar criteria wetlands are selected on account of their international significance in terms of biodiversity of their ecology, botany, zoology and hydrology and to be wetlands of international importance to water birds at any season.

Australia has 66 registered Ramsar wetlands with 12 in Western Australia; the Peel/Harvey wetlands were designated in June 1990. There are none in the Avon Catchment.

ENVIRONMENT MATTERS



Member, Karen, found these hard 'things' in her bird bath beneath a tree that she fills daily. With her research the 'things' were found to be the seeds of Lupins. It is thought they may have been collected by Ravens to be left in the bird bath water to soften.

Photo: Karen Hansen

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