WICC
WILSON INLET
CATCHMENT COMMITTEE

WICC News

WICC Newsletter August - September 2021

Djilba

Season of conception
Transitional time of year, flowers starting

Photograph by Craig Carter from Earthrise Productions

Farmers in focus

Pauline McHenry with three of her grandchildren

WICC interviewed Pauline McHenry who is a local sheep farmer from Mt Lindesay. Pauline was one of the original members of WICC!

WICC: Can you give us a little history of your experience with WICC many years ago?

I was asked by a chap from the Ag Dept to be on the original WICC committee consisting of six women who were progressive farmers trying to improve our farms. This was in the 1980s and we were women farming in Narrikup, Young Siding, Hay River, Denbarker, near Forest Hill, and us at Mt Lindesay. We met monthly at everyone's farm to share new ideas and skills, and were trying to promote what you could call now 'agroecological principles' to others. These included observing natural systems, and encouraging other farmers to plant more trees for stock and salinity, and fence out rivers from stock. WICC was off to a good start under Jean Webb from Narrikup as the Chair.

WICC: Can you give us a little bit of history about your farm?

From reading recorded history we think the land our farm is on was well known to Mokare, a Minang man from Albany who guided both Wilson's and Barker's 1829/30 expeditions naming Mt Barker, Mt Lindesay, and the Hay and Denmark rivers, and also Wilson Inlet. After European settlement, the farm was milled for timber in the early decades of the 1900s and made freehold land in the 1930s. It had many owners in that time. It was then resumed for a local water supply for a couple decades while being leased before it was made freehold again in the late 1970s. Michael and I were the fourth owner in around four years after the second time it was up for freehold.

WICC: When did you buy the farm?

We bought the farm in 1982 in a very dilapidated state with hardly any trees left standing in paddocks. Four months after purchase we learned the farm was under quarantine for Patterson's Curse. It was also covered in rocks, roots, thistles, and many other weeds, and had hardly any

stock watering points apart from the rivers. We saw the potential in all the water and rainfall coming from dryland farming in Moora, but soon recognised salty groundwater getting worse from overclearing in previous years.

WICC: So what did you do?

Well before terms like ‘regenerative’ or ‘sustainable’ became common, Michael and I used similar principles, but it was called ‘cell’ or ‘rotational’ farming then. Coming from Moora with flatter land, we saw how Denmark farms needed to be managed around water and rainfall, and that you have to work with the complexity and not against it. We had to look at where the water travels and how the land, forest vegetation, and soils changed. I was brought up on a pioneering farm and later worked in the Lands and Survey’s Dept, and Town Planning Depts in Perth, and then for Sir William Halcrow in London. So I used this previous experience to draw up a farm plan. We observed our farm and then fenced on the contour, soil tested, and started manually planting trees along fence lines for the goats, sheep, and cattle to keep dry, shaded, and comfortable. We pruned these trees for extra summer feed as we rotated the stock around in small paddocks. The soil tests showed the ‘older’ country had a good super bank, but the ‘new’ more recently cleared areas needed various elements not obvious to the eye. There was a lot of work to do weeding, fencing, cleaning paddocks of rocks and roots, etc. It took many years to address the groundwater salinity issues too.

WICC: How did you address the salinity issues?

It was fairly basic then. We were advised to drain the salty water to the river and that was a disaster. So much erosion in the 1988 winter. It was then we decided to fence a hundred metres in each direction from the salty area and revegetate it. I have since sampled every dam and waterway for TDS at least once each year. I now have over 30 years of salt records from each river and dam on the farm that we fenced out and revegetated and how each changed when we worked at it. Those that know me know I like to keep detailed records of everything!

WICC: What drew you to farming in Mt Lindesay and Denmark from Moora?

Returning to Moora to marry Michael we farmed in Dandaragan while we also worked in the Moora Hotel. Michael was the Licencee for his parents, but after a few years Michael’s health deteriorated and he followed doctors orders to leave the Pub. So we moved to Denmark as it was where we had our Honeymoon. Farming in Denmark was difficult with a sick husband and two young sons, but we set our sights on improving the health of our farm.

WICC: Coming to your farm, the number and diversity of trees is striking. Why did you plant them?

I selected the trees for many reasons, but I never planted a monoculture for timber. Yes, I planted good timber trees, but they were mostly planted along fence lines for erosion control, windbreaks, aesthetics, accessing deep minerals, food and fodder, and as wildlife corridors for the birds and bees to travel along. I wanted to connect the paddocks to the river and the surrounding forest. Growing up on the family farm in Moora taught me a lot about working with the land. I count myself lucky to travel to many places and learn alongside my Dad and Grandfather. My Dad, Maurice was a friendly and inventive man who was good with his hands. He used to say, “you always plant a tree for at least three reasons”. There are many things that came in handy from the experience of an intergenerational family farm, such as planting trees, and learning how to burn off to enhance the bush. My grandfather took up land in Moora in 1896 after landing in Albany in 1892, as he previously farmed in Northern Ireland. Planting trees was just normal as a child. All our family had a green thumb, as you needed to in those days. Mary, my Mother, spent her early childhood years in

in Gwalia in the Goldfields and her Northern Italian Mother provided for her children by supplying staples of goats milk and cheese and vegetables grown in kerosene tins. They were very resourceful and well-educated people. I was one of five daughters, but we were brought up working with the men during school holidays when we were home from boarding at New Norcia.

WICC: Apart from hard work, what other things about farming did you learn from your family?

Like my sisters I used to drive the farm ute and truck from a young age. One thing we did was drive to the Cook family farm's salt lake west of Moora. When soils were lacking in minerals in those days you needed to observe and work out what your animals needed. You couldn't just buy things. You had to do it yourself. While too much salt in the groundwater is a problem, the animals need some in their diet for sodium. When we came to Denmark, I knew from my Dad that we didn't need to drench as much if we ensured the stock had ad lib mineral lick and salt in each paddock. So I made a salt feeder from old drench drums and wired them to the fences to keep them in place.

WICC: You mentioned fencing off your rivers and dams for salinity. How do your stock access water?

We had troughs made in the paddocks and dug trenches for polypipes that followed the contours as much as possible. We pump from a gully dam up to a holding dam and have gravity pressure to every paddock for stock water and fire access points. We chose one solid concrete trough suitable for both cattle, sheep and goats that is easy to clean for good water for healthier and more productive animals. It also prevented a lot of erosion and was safer for them well away from the rivers. We agroploughed on the contour to prevent erosion to aerate any compacted soils, and we did a lot of work with seeding in the early days. We tried many clovers, ryes, fodder rape, kikuyu, and irrigated lucerne, plus various fodder crops for silage. We became good friends with Neil and Isabelle Everett and used ICI bags to make silage like they did. We put two round bales into one bag, and used our house vacuum cleaner to remove the air. It was quite new then, and very time-consuming, but the sheep and cattle loved it. We haven't cut hay since, but making silage has come a long way with all the machinery.

WICC: Has all the trees changed the health of your farm?

Yes. The farm trees look beautiful and have many other benefits, but there were some unexpected ones. A surprise was that we haven't needed to spray pesticides for over 30 years. We learned from a sample I sent to the Ag Dept that what I thought was a pest insect on a trough was a natural predator to the aphid we had on our lucerne. We realised spraying insecticides would upset our little 'agroecosystem' balance. Since the trees along fence lines have matured, they have connected as corridors to the native vegetation. We seem to not get the pest infestations we once did 40 years ago. And we do enjoy the numbers and variety of birds and bees the trees bring. It is now great that my son Mark and his wife Julia and young children have now improved on my original farm plan while following the family tradition of looking after the health of the land.

A message from our Elders

A gathering of Noongar Elders was held at Kwoorabup Park, Denmark, Western Australia on 19 May 2021. This is on the site of a traditional gathering place of the Menang and Pibbulman Wadandi Tribal groups whom came together periodically to trade, intermarry and share the resources of the Wilson Inlet. Earthrise Productions has captured the event - please check it out.

"If we can get everyone thinking that way, that everyone takes a totem on, a bird an animal or something like that and they take responsibility of looking after that flora and fauna, we'll be in a beautiful spot... just nurturing the land and looking after em because there under that much threat now that we need to standing up and start doing something about it."

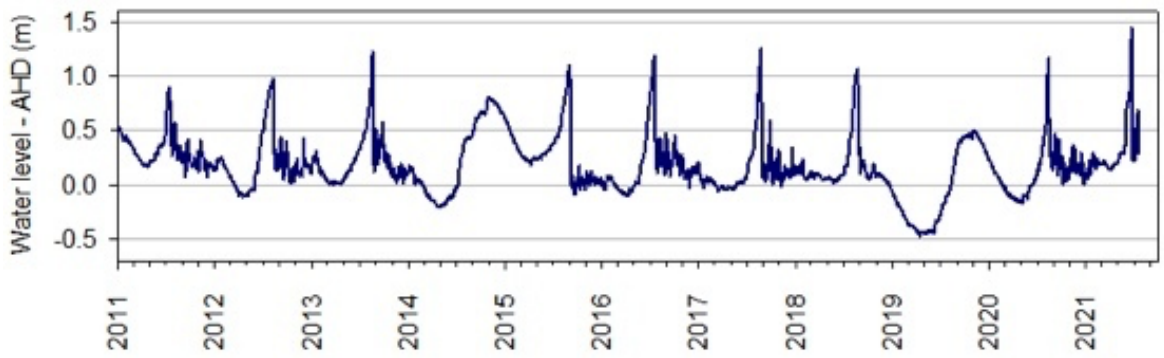
Pibbulman Wadandi Elder Wayne Wonitji Webb

Inlet update

The Dept. of Water and Environmental Regulation Environmental Officer, Dr Elke Reichwaldt, said

that on 21 June 2021 Wilson Inlet was once again opened after having been closed for only 3.5 months. The last time the inlet was opened this early was 16 years ago. The early opening this year came about after a low pressure system dumped over 100 mm rainfall over the Wilson Inlet catchment within 24h - one of the wettest days Denmark has ever experienced. This made the inlet level rise by 30 cm within 10 hours and the Inlet was opened at just under 1.5 mAHD, the highest water level since records began in the 1950s. It took the water level 4 days to drop to around sea level, but since then high ocean levels, storms and big swells have made the inlet water level fluctuate between 0.2 and 0.8 mAHD.

The inlet is currently showing the typical stratified conditions caused by the ocean water flowing into the inlet. This stratification, where the saltier, warmer and heavier ocean water is overlayed by the colder and fresher estuary water, has lead to some areas of low oxygen near the sediment. The rivers are still flowing strongly and the large input of fresher water from the eastern rivers has resulted in lower salinity in the eastern part of the inlet than in the western part.

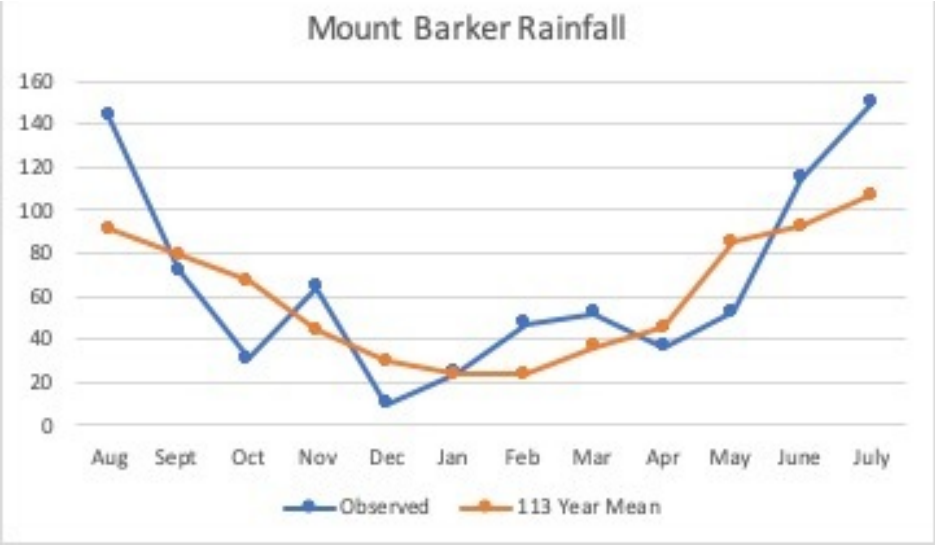


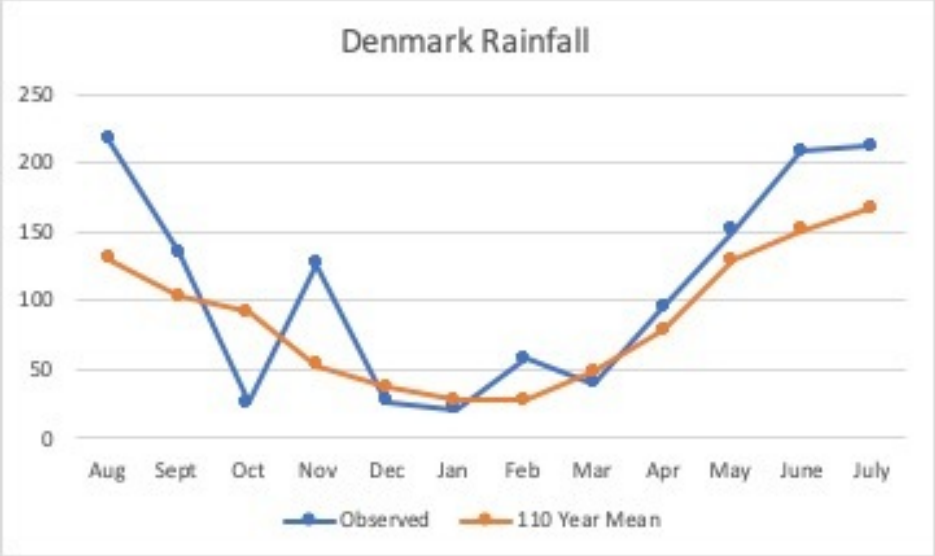
Inlet height since 2011 (courtesy DWER)

Rainfall update

WICC's most reliable source for Mount Barker rainfall data is retired farmer and wine maker, Tony Day. Tony has been keeping rainfall data since the first rains. Tony says, "So far this year we have had 649 mms. The average for 12 months since 2001 has been 676mms, but this was divided between East Denbarker and Mount Barker. It would seem that we have a well above annual rainfall about every 5 years or so. This year's rain was a welcome relief after the three dry years and one average one, in which dams struggled to reach 75% capacity, and set up a full soil profile which will see us through most of next summer. Last year we had late spring rain with 84.5mms in November which helped us through the early summer and allowed for a good flowering and fruit set in the vineyards with subsequent highish yields. It is going to be interesting to see whether the loss of the Blue Gum plantations will lead to lower rainfall in the area. The average seemed to go up after 2005 when the Blue gums were at a peak."

Looking ahead A negative Indian Ocean Dipole is underway, and large parts of the eastern Indian Ocean are warmer than average. This can favour above average winter–spring rainfall for Southwestern Australia.





Weeds in focus

Leucojum aestivum (Snowflake Lilly)

Commonly known as Snowflake Lilly, this strappy-like plant from the Mediterranean belongs to the Daffodil family of flowering plants. Forming clumps of leaves and stalks, it is highly invasive and contains toxic alkaloid compounds. One of these compounds, Galantamine is extracted for medical research in the treatment and study of Alzheimer's disease.

There are some 13 species of the daffodil family in Western Australia and this bulbous perennial weed can be found on the shady edges of the Wilson Inlet, flowering in winter and spring. It prefers wet and damp conditions, turning dormant during the summer.

The drooping white flowers are distinguished by small little green spots on the tip end of each petal. Flowers contain six white petals and produce little black seeds of about 5mm long.

These seeds and root bulbs are carried by water in the landscape, therefore creating an invasive seedbank lasting many seasons. Hand weeding this strappy plant is best, as the bulbous-like roots need to be removed from the soil. Crushing the bulbs will prevent them from germinating the next year. A glyphosate-based herbicide may destroy the bulbs but must be applied while the plant is in flower, though care should be taken when treating near waterways.

Nullaki fence finally features fully functional floppy

Great Southern Fencing installing floppy top

Following delays from Covid and weather the Nullaki fence now has a floppy top across its 8 km breadth. While the fence is no panacea, it is an invaluable tool in protecting native fauna within the 2400 hectares of fenced area of the Nullaki peninsula.

The fence has been a controversial (some would say divisive) topic since its construction in 1993. The original fence relied on electric wires to stop animals from climbing over it. The wires frequently shorted when male kangaroos boxed through the fence. Sea spray from the Southern Ocean further led to its deterioration. With access to both sides of the fence being limited since its construction, due to the regrowth of vegetation, WICC knew upgrades and maintenance of the fence would be difficult.

When the fence was surveyed in 2018, the posts and subterranean skirt (prevents burrowing under fence) were found to be in reasonable condition providing a good foundation for upgrades. With feral predation being the greatest pressure on preserving native fauna, the backbone of the Nullaki fence provided an opportunity to do something in our patch.

A recent parliamentary enquiry into feral cats recently recommended such 'safe havens' as the best opportunity to save many of our native fauna from extinction. Cats alone kill 390 million native animals in Australia each year, with each cat consuming 748 reptiles, birds and mammals per annum. Unfortunately these havens only represent 1% of Australia's area. National Heritage Trust advises that floppy top feral fences provide the most cost effective means of excluding feral animals from safe havens.

The fence has now been restored to a condition which makes entrance into the Nullaki quite challenging for cats, foxes and rabbits. Future upgrades and maintenance will further improve its integrity.

WICC has fielded numerous questions (and myths) about the fence since our initial involvement in 2018....

Q: ***The fence will never keep out 100% of ferals from the peninsula so what is the point?***

A: No it won't but it will slow them down. Intensive baiting, trapping and shooting on the inside of the fence will definitely tip the balance in the favour of natives. Plus, the fence was already there so why not improve it.

Q: ***The fence is being funded by the lime pit so why should public money be used to maintain it?***

A: No funds have been received from the lime pit. Contributions for recent upgrades have come from numerous Nullaki landholders, state, federal and WICC funding. It is always in the public's interest to do all it can to protect native animals.

Q: ***Feral animals can just walk across the sandbar when the inlet is closed so why worry about the fence?***

A: Surprisingly, the sandbar is not the feral highway we thought. Our camera data has shown a very low number of ferals adjacent to the sandbar. In addition, the western end of the peninsula is well managed with good uptake in our feral management program.

Q: ***How do you know you are making a difference?***

A: A grid network of cameras extends across the Nullaki. These data are reviewed regularly. A new Technical Advisory Group has been formed consisting of ecologists from Australian Wildlife Conservancy, UWA, the Department of Biodiversity and Attractions and South Coast NRM to provide ongoing management advice.

Q: Doesn't the fence limit the range of natives inside the fence reducing their genetic diversity?

A: We asked the same question. The area and diversity of vegetation within the fence provides adequate range for natives. The range of a Western Ringtail Possum for example is about 5 hectares. Plenty of room to find a soul mate (they mate for life!) in the 2400 hectare fenced area.

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