

The latest news from your friendly *Nearer to Nature* team.

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Hi Lisa Wright

Issue No. 14

Wanju (welcome)

Monday, 16 August 2021

Welcome to the latest issue of *Nearer to Nature News*, where you can find nature-based education news and events for Perth and surrounds from Parks and Wildlife Service.

Term 3 has got off to a rather wet start, but the good news is, we will have a spectacular flower season this year!

Yes, Spring is around the corner and is a great time for getting out in the bush to learn about WA's amazing fauna and flora. Take advantage of our [September Threatened Species Special and get a 20 percent discount](#).

Join us to learn about the nature of Western Australia and help Parks and Wildlife Service ensure it is protected and conserved for its intrinsic values and to enrich people's lives.

Looking forward to working with you
Mr C

Djilba, a time of colourful transition

When the creams of the soap bush (*Trymalium*) and white myrtle (*Hypocalymma agustifolium*) and the purples of the holly-leaved hovea (*Hovea chorizemifolia*) and blueberry lily (*Dianella revoluta*) join the vivid yellow *Acacia* blooms that brightened the bush in Makuru, the Noongar people recognise a seasonal transition is about to take place.

This is the signal that the jarrah forest is about to enter its annual massive explosion of colour.

Woodland birds are still be nest bound, hence the swooping protective behaviour of the Koolbardi (magpie). The Djidi Djidi (Willy wagtails) and the Chuck-a-luck (wattle birds) will also divebomb anything that gets too close the nest for comfort, people and dogs are often targets.



Clockwise: Noongar Six Seasons. Photo - Lyn Marshall/DBCA, prickly Moses (*Acacia puchella*). Photo - Fran Bollands, and holly-leaved hovea (*Hovea chorizemifolia*). Photo - Lyn Marshall/DBCA.

Wonders of wildflower biology – pollination



Honey bush (Hakea lissocarpha). Photo - Liz Grant/DBCA

We are privileged to live in an area internationally recognised for its rich and diverse flora.

Have you ever wondered why our flora looks like it does? It's all to do with propagation and, in particular, pollination.

If a flora species is to continue it needs to breed with maximum seed set and minimal 'flowering' effort.

Less effort is required for inbreeding or 'selfing', but this can lead to a plant being less vigorous and not able to adapt to changes in its environment.

Hence the better strategy is outbreeding or 'crossing'. This is straightforward for plants with unisexual flowers on separate plants (dioecy), Dioecious plants produce much pollen and tend to be wind pollinated.

However only five percent of flora in our southwest is dioecious.

Plants that have both male and female flowers (monoecy) prevent inbreeding by controlling when male and female flowers open. If only male flowers are open and all female flowers are closed, the plant cannot breed with itself.

Most flora of the south-west is hermaphroditic (bisexual flowers with both stamens and carpels).

Inbreeding (selfing) is possible, but prevented by controlling when male and female flower parts are active. The pistil is only activated after the pollen has been released. In this way the plant can't fertilise itself.

Outbreeding in these plants requires fairly specialised pollinators (anthophily).

colours and scents of our flora is a concerted effort by plants to attract pollinators to transfer pollen from flower to flower.



Blue leschenaultia (*Leschenaultia biloba*) attracts insect pollinators.

Photo - Lyn Marshall/DBCA

Insects are attracted to the blue range of the spectrum, while birds are attracted to the red range. As Australian birds are unable to hover while feeding, like hummingbirds, plants need to provide a landing platform for birds (see kangaroo paw photo).

Less brightly coloured flowers have nectar that attracts small beetles, ants, cockroaches and native bees.

Others have a strong scent, especially at night. Birds are insensitive to scent, so the scent targets nocturnal rodents and small marsupials.

Orchid flowers are soft and delicate and may be destroyed by birds, marsupials or even large insects, so have specialised methods of attracting suitable pollinators.

The Australian slipper orchid (*Cryptostylis*) flower emits a pheromone male ichneumonid wasp finds irresistible. As it flies from flower to flower the wasp collects pollen on its abdomen the male flowers and takes it to female flowers.

Scents are not always pleasant. *Hakea trifurcate* flowers smell like rotting meat and are surrounded by flies and blowflies.

Plants go to a lot of trouble to attract efficient pollinators and that's why our wildflowers are so spectacular and diverse.

Students can learn more about our biodiverse flora with us

- [Flora biology](#).
- [Biodiversity in the bush](#) .



Left: Bunny orchid (*Eriochilus dilatatus* subsp. *multiflorus*). Photo - Liz Grant/DBCA

Right: The sloping red stem of *Mangles kangaroo paw* (*Anigozanthos manglesii*) attracts birds, which land on the stem to feed from the flower that tilts towards them.

COMING SOON --- 2022 Year 7-12 program brochure out in early September

Looking to the future

Late last term we held a very successful focus group session with secondary school biology teachers as a first step in reviewing our senior level biology programs.

Many thanks to the teachers who participated! We really appreciate the feedback we received, it is an important part of our ongoing processes of reviewing and updating our programs.

We invite any teachers who were not able to attend the focus session and are interesting in shaping our secondary biology programs to contact us. We can either ring you or visit you at school and 'pick your brains' for 20 – 30 minutes at a time that

We are also interested in comments about how we can make things easier for you.

Please get in touch by [email](#) or phone 9295 2244.



Group focus - teachers and N2N staff taking a long-range look at the field work needs of Year 11 and 12 biology students. Photo - Liz Grant/DBCA

Hands up primary school teachers

Are you a kindy or primary school teacher? Are you passionate about environmental education?

We need your input as we focus on how we can increase the number of primary school students engaging with nature and learning about WA's fauna, flora, environment and Aboriginal culture through hands-on activities.

We would like to know:

- What obstacles do you face?

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- Are we delivering?
- Your preferred channels of communication, and formats?
- How can we reach more teachers and schools?

Focus group meeting details

Time: 4pm

Date: 11 November

Place: DBCA Head office, 17 Dick Perry Ave, Kensington.

Let us know by [email](#) if you would like to join us.

Or, if you have ideas/feedback and are unable to attend, please email those to us or ring us for a chat [9295 2244](tel:92952244).

Have program, will travel



Not in the Perth metro area? Not a problem.

Our intrepid Mr C hit the road in May to help Cadoux Primary School bring their students Nearer to Nature.

Cadoux is in the Wheatbelt, a squeak more than 200km north-east of Perth and getting access to incursions and specialist-presented excursions is a big challenge for the school.

Undaunted by distance, Mr C immersed the Year PP-6 students in a full morning of

Click to find out more about our popular [programs](#) (incursions and excursions) for students from Kindy to Year 12.



Meet Nova – a kwara (black-gloved wallaby)

What's smaller than a kangaroo and bigger than a quokka?

A wallaby!

Little Nova is a kwara (*Notamacropus Irma*), commonly called western brush wallaby or black-gloved wallaby.



Kwaras have soft, gun-metal grey fur with attractive white facial stripes down the side of the face and delicate black 'gloves' on feet and paws.

When on the move, they lower their head, extend their tail and hurtle quickly through their habitat of open forest or woodland

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Rehabilitation. Her mother was caught in a farm fence in Jurien and badly injured. She sadly did not survive.

The farmer took Nova from the mother's pouch and she was cared for a few days in Geraldton before being transferred to Perth. She has been at the Blue Gum centre for two months and will need to stay another 12 months.

Black-gloved wallabies were very common in the early days of settlement and hunted commercially for their fur. However, their habitat was seriously reduced and fragmented due to agricultural clearing.

In addition, a dramatic increase in the number of foxes in the early 1970s led to a decline in their population as foxes preyed on their young.

They are now found only in the south-west of WA and are uncommon. However, fox baiting by Western Shield has seen an increase in their numbers.

When she is ready, Nova will be released into beautiful, protected, fox-free bushland in the catchment area near Gorrie Road on the way to Northam.

Photos - Lyn Marshall/DBCA



For teachers

Your students can learn more about how Western Shield protects our threatened native species by:

- Participating in one of our Western Shield programs, for details visit <https://www.dpaw.wa.gov.au/get-involved/nearer-to-nature/schools>.
- Downloading the [Western Shield action pack](#) for Years 4 to 6, a curriculum-linked resource about threatened species for teachers to use in the classroom.

For everyone

Are you interested in native wildlife and keen to help out from the comfort of your own home?

Centre revamp popular with locals



Perth Hills Discovery Centre (PHDC) resident roos are big fans of the new-look grounds at the entrance to the centre that were landscaped during June.

They particularly approve of the lovely lawn installed in the courtyard where school groups gather during excursions.

While the lawn type chosen is very hardy and suitable for the conditions it unfortunately still tastes good to roos – perhaps an unpalatable lawn is something that will be available in the future...

The revamp also included new picnic tables set amongst the trees shading beds planted with a variety of native plants, including those used for bush tucker.

The picnic area is used both by school groups and visitors who are exploring the forest or simply looking for lovely place to have lunch.

arranged to cater for both big and small groups.

“We have a few tucked away under the trees and a cluster closer together to cater for larger gatherings,” he said.

“We are very happy with the results, the Parks and Wildlife Service team from the Perth Hills District that did the work did a great job.”



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