Check out the latest news from your friendly *Nearer to Nature* team.

Nearer to Nature News

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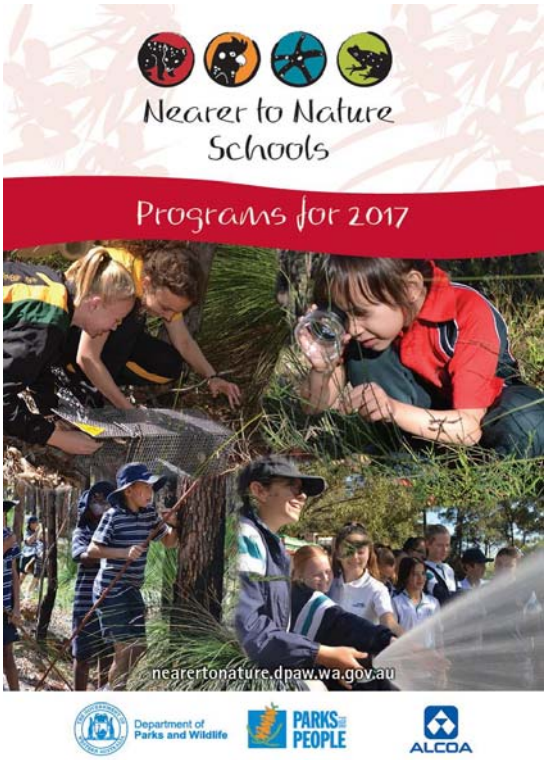
Hi Lisa Wright



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

Winter has been wet this year so plants and animals have responded with good growth and breeding. Flowering this season was the best it has been in years! Several schools doing *Monitoring Marsupials* had the added bonus of seeing the young marsupials, which was exciting for students but a little stressful on the handlers.

After so many dry 'wet' seasons the soil took a long while to soak up the rainfall before runoff occurred. The moisture soil profile will possibly extend the spring prescribed burning season. It is planned to do a few prescribed burns around our centre giving students new areas to study both the impact and recovery from a low intensity fire.

In August, Richard Olive and I attended the GAWA Annual Conference and met with many enthusiastic geography teachers before leading a field workshop at

Mundaring. It was great to meet up with many familiar faces as well as new teachers. From the discussions we had during breaks, several possibilities for new excursions were discussed, including land cover change and dieback as an ecological hazard. Further input from teachers will be sought out as we develop new excursions to meet your needs. Once we organise new geography excursions we will update GAWA and hopefully feature the details on their web page.

The Programs for 2017 brochure is now available online. Hard copies of brochures for high schools should be in schools now. For primary schools the brochure is being mailed out for return to school in February. Spaces fill up quickly for these excursions. To avoid missing out in 2017 make sure that you get in early.

Time to get out from behind the computer and wander through our amazingly rich landscape, before the next downpour!

Mr C

Photo: *Out now! Our brochure with programs for 2017.*

In this issue:

Junior Dolphin Watch

The Swan Canning Riverpark is home to a diverse fish community, with more than 130 species recorded including a resident population of 20 Indo-Pacific bottlenose dolphins and their calves.

Parks and Wildlife recognises the importance of dolphins as potential indicators of river health. In light of this

they coordinate the Dolphin Watch project.

The Dolphin Watch project is a partnership between Parks and Wildlife, River Guardians program and Murdoch and Curtin universities and was developed as a collaborative, citizen science research and education project. The project was helps people learn more about the community of bottlenose dolphins residing in the Swan and Canning rivers.

In 2013, the Junior Dolphin Watch program was launched and to date more than 1500 students from 26 schools have been involved. Activities and excursions are free for schools and include key ideas on how to care for our dolphins and the river they call home. Students learn how to identify the individual dolphins, recognise their behaviours and learn the importance of citizen science.

Learn more or get involved.

Top: *Two Junior Dolphin Watchers from Aquinas College*

Bottom: *Play time in the Swan Riverpark*

Kambarang – the season of birth, wildflower season

Noongar people are connected to the land. They divide the year into six distinct seasons that corresponded with moving to different habitats and feeding patterns based on seasonal foods.

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For Europeans, October to November is late spring. For Noongar people that time of year is Kambarang; the time to move toward the coast where frogs, tortoises and freshwater crayfish can be caught. With warming weather, there are longer dry periods and fewer cold fronts passing the coast.

Kambarang is a time of transformation. Wildflower season is at its height in the south-west, the yellows of acacias continue to be prominent along with banksias. While there are many delicate, smaller plants in flower such as orchids, trigger plants and kangaroo paws. Towards the end of Kambarang we see the spectacular flowering of mooja, or ‘Christmas tree’, a sign that the heat is on its way.

Above: *The 'Six Season Walk' is great way to explore Aboriginal culture and our bush*

The warmth brings increased activity with reptiles more frequently encountered. Bobtail (or shingleback) lizards are commonly seen basking in sunny areas before foraging for food during the warmer parts of the day. Like all lizards, shinglebacks do not produce their own body heat, and rely on the warmth of their surroundings to raise their body temperature.

It's also a time that many young families of birds will be singing out for their parents to feed them. Koolbardies (magpies) will also be out protecting their babies in the nest.

The Jarrah forest is great place to be in Kambarang and one of the excursions focusing on Aboriginal culture with *Nearer to Nature* is a great way to do that!

Our flora rises like the phoenix

As we approach summer we openly welcome long, hot, dry days after our prolonged winter season. With summer comes fire. Have you ever wondered why our amazing native flora endures even after it is charred and blackened in summer fires hot enough to kill non-native species?

This is because these plants have evolved with fire
for centuries. Fossil records and charcoal deposits indicate that fire has been present in our landscape for at least 30 million years. To cope with fire, our plants have developed ingenious methods to protect themselves from the extreme heat fire brings. Our eucalypt species have epicormic growth buds buried deep beneath their thick protective bark. After a fire, new growth sprouts from these buds,a vivid green against the charred trunks of these trees.

Above right image: *Epicormic bud growing from Eucalypt after fire has activated it.*
Below image: *Regrowth is a vivid green against fire charred bushland.*

Eucalypts also have a swelling at the base of the stem just below the soil called a lignotuber that contains dormant buds full of water and nutrients which burst into life when the top growth is killed by fire. The lignotuber serves as a backup strategy for regrowth in the case that fire is so hot it kills the epicormics buds in the trunk. Grass trees have a growth bud hidden away from the heat in the centre of their trunk.

Zamia plants also regenerate from a protected growth bud. Zamias and grasstrees regenerate very quickly after fire and provide welcome food for the native animals. Nearer to Nature Schools *Biology and Fire Biology* program explores the amazing ways our flora rises from the ashes of fire, just like the legendary phoenix.

Below image left: *Zamia plant, about 60cm high resprouting out of a burnt out bush.*
Below image right: *New growth from a grasstree after fire.*

Crickey! Magpie season again!

No, not the Collingwood Football Club. I'm talking about the peril of swooping magpies. Magpies are iconic song birds with a range of calls from melodious warbles to harsh squawks. For all their great attributes they have one behaviour that worries people - swooping. Swooping ties in with their breeding season which, depending on the rains, runs from August to October with peak swooping season being in October.

Above: *Posties are often targeted by magpies. Photo - Sydney Morning Herald on-line*

Why they do they swoop?

When magpies are raising their chicks, they defend their nest by swooping on perceived threats. Unfortunately this often means people! Studies indicate the males have a more aggressive behaviour. Walkers within 50m of the birds nest are in the 'danger zone' and unfortunately a cyclist's danger zone is closer to 100m! Usually a swoop will come from behind and not make contact, occasionally the bird will use the

sun behind them to strike from the front. In a small percentage of cases, contact with the head occurs but the injury usually isn't major. Howeverfor cyclists it is the fall after that causes the most damage, physically and to confidence.

Here at the Perth Hills Discovery Centre magpies are very common, with multiple nests around the centre. Yet our magpies don't swoop. Why? Our guess guess is because people haven't caused the birds any problems and do share some food with them they therefore are not seen as a threat. If we are not a threat then no need to try and drive us away. So as long as visitors don't throw sticks or stones at our magpies they will not swoop.

What can you do?

- Avoid known swooping area during the breeding season.
- For walkers, try using an umbrella or a broad brimmed hat
- For cyclists, sticking eyes on the back of helmets or attaching zip ties across the top of the helmet with the ends sticking out seems to work. Neither are a fashion statement but will definitely avoid you being swooped.

Removal of offending birds is a last resort as you are breaking up a pair during breeding season. Remember it is illegal to kill magpies.

Education for students

Students are, understandably, intimidated by swooping magpies. The more we educate students about when, where and why magpies swoop the more resilient they are. By encouraging avoidance techniques rather than aggressive defensive behaviours against the birds the incidence of attacks may diminish.

For more information or if you need assistance, contact Parks and Wildlife.