

The Bushland Whistler

Friends of Forrestdale Newsletter ♦ Edition 11 ♦ October 2014

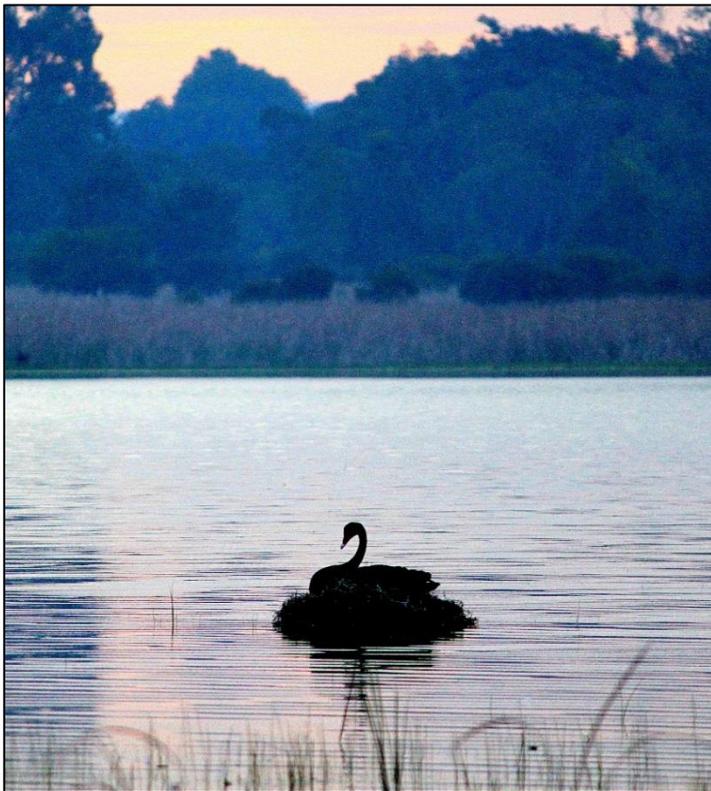
BLACK SWANS - nesting at Lake Forrestdale

THIS YEAR, AS WITH EVERY YEAR, several pairs of black swans have chosen Lake Forrestdale to raise their young. They began arriving in early June when the first trace of water appeared on the lake, and in early July when the lake had sufficient water, they started to build their nests. By mid August about 22 nests had been built.

Typical sites chosen for nests are exposed positions in open water a little distance from shore. A few nests are sometimes built among the rushes on the lake edge, and while these sites may be sheltered and hidden from general view, the eggs and cygnets are at greater risk here since they are more prone to fox attack.

To build their nests, swans collect submerged plant material from the lake bed and stack it up until they have a suitably large, bulky nest that sits above the water.

Black swans can lay up to nine or ten eggs in a clutch, but the usual number is five or six. The eggs are pale slightly lustrous creamy green when laid, but (as with the ones pictured below) they soon become nest-stained.



Incubation takes from 35 to 45 days.

Pale grey and downy when very young, cygnets need their parents around for protection until they fledge, but at Lake Forrestdale, this unfortunately is not always possible.

The lake usually dries before many of the cygnets can fly, the adults are forced to leave in search of other wetlands and the flightless cygnets are left stranded.

Without water and without their parents to protect them, the young birds perish.

Certainly this was the case in the past, and sadly some still do. But in recent years the Department of Parks and Wildlife and Friends of Forrestdale have organised an annual cygnet rescue where at least some of the birds are saved. This takes place usually around the end of December or early January and it is likely this season will be no exception and a rescue operation will need to be planned.



Top: A black swan (*Cygnus atratus*) at dawn on her nest on Lake Forrestdale.

Bottom: A typical black swan's floating nest built in deeper water. This nest was photographed at Lake Mealup south of Pinjarra and is mostly made of pieces of typha stem which the swans would have gathered from the lake bed. (On this occasion there was a brief opportunity to photograph the nest and its clutch of 6 eggs while the adults were away foraging, thus the chance of upsetting the birds was avoided.) Incidentally, black swans do not always build their nests in water, sometimes nests are built on dry land.



Male and female black swans are similar in appearance, the female is slightly smaller. He is called a cob, she a pen.



The black swan has been important to Australian Aboriginal people, culturally and spiritually, for thousands of years. Since European settlement it has remained a prominent symbol of Western Australian identity: the Swan River was named for the black swan; it is the bird emblem of Western Australia; it features on the state badge of Western Australian, on the state flag and on the Western Australian Coat of Arms; black swans also adorn the City of Perth Coat of Arms and the Perth flag.



More swan facts:

- ◆ Though they have white primary feathers, usually visible only when the bird is in flight, the black swan is the one true "black" swan in the world.
- ◆ Of the world's seven species of swan, the black swan has the longest neck in relation to body size—the neck of the female is slightly shorter than that of the male.
- ◆ Black swans are vegetarian, feeding on algae and other aquatic vegetation; they also graze grass on lawns and paddocks.
- ◆ Black swans feed in fresh, brackish or salt water.
- ◆ The call of the black swan is a musical bugling, most often emitted in flight.
- ◆ Black swans can live for around 40 years and typically mate for life. ✧

LITTLE GREEN SPRING SCARAB (*Diphucephala* sp.)

AT THE END OF WINTER and in spring, little scarab beetles sporting a bright green, sometimes bronze, metallic sheen, can be seen in the bushland in and around the Forrestdale area and elsewhere, clustered mainly on native wattle flowers, *Acacia saligna* and *A. pulchella* particularly.

Frequently gathering in large numbers, these striking beetles signify the arrival of spring, but despite their splendor and seasonal abundance, not much is known about their biology, other than that they are believed to lay their eggs in the soil (as do other scarab beetles).

Towards the end of spring, following their seemingly intense breeding activity and when the wattles they inhabit have finished flowering, the beetles vanish. Except for the occasional dead one found on the ground beneath the bushes where so much activity recently took place, no trace of them remains.

It is nevertheless reassuring to know that, come next season, when the wattles start to burst into flower, the beetles' cryptic life cycle will begin all over again, and these lustrous insects will emerge once more to add an extra touch of sparkle and wonder to the bushland. ✧



FIRE in Gibbs Road Swamp bushland

WITHIN THE JANDAKOT REGIONAL PARK and part of the \approx 290 hectare Bush Forever site 344 (that also encompasses Denis de Young reserve in Banjup), the Gibbs Road Swamp bushland reserve in Forrestdale was established to preserve the range of distinctive habitats it contains including damplands, heathlands, vegetated swamps and banksia woodlands.

While some areas of the Gibbs Road Swamp bushland have become weedy and have been damaged by off-road vehicles, much of the reserve has remained in good condition.

In early February 2014, an arson attack in adjoining private property started a fire that got out of control and burned an area of roughly 1.5 x 4.5 kilometres from near Nicholson Road, Forrestdale to Tapper Road in Atwell. The fire caused extensive destruction in the nature reserves it enveloped, including the Gibbs Road Swamp bushland reserve.

For many thousands, possibly millions, of years native flora and fauna has had to cope with fire. Before the arrival of humans to Australia—a relatively recent occurrence in the history of the continent—lightning strikes would have been the sole cause of fires and it is likely—though no one really knows—in those times fires would have been infrequent.

Since their arrival—believed to be about 60,000 years ago—Australian Aboriginal people are thought to have managed the land using fire by lighting usually small, cool fires, mostly for hunting purposes.

This custom would certainly have altered the flora composition of the Australian landscape and over time plants have had to adapt to survive fire or become extinct.

Before European settlement—when native vegetation covered the land and foreign weeds were absent—fires would not have had the harmful effects seen today. In those times, if an area was burnt, there were none of today's foreign opportunistic weeds to jump in and take hold. And when the fire killed wildlife, the burnt area would be recolonised with animals from the then boundless surrounding bushland.

But things are different now. Widespread clearing over much of Australia has meant that native vegetation



and wildlife are confined to mostly small, isolated islands surrounded by oceans of farmland, housing or industry. The Swan Coastal Plain (SCP) is no exception.

Remnant bushland reserves on the SCP are already under pressure for various reasons including fragmentation, weed invasion, fungal diseases and groundwater extraction. Fire adds to the pressure.

When fire burns bushland, it also burns wildlife. Birds, mammals and reptiles die in fire. And so do the arthropods—creatures that we don't always see—such as insects, crustaceans and arachnids. These animals all play a role in their own special way in ensuring their environment thrives.



Above: A once grand old modong tree (*Melaleuca preissiana*) sprouting new leaves 6 months after it and surrounding bushland was burnt in the February fire.

Below: A western bobtail skink (*Tiliqua rugosa rugosa*) burnt in the fire at Gibbs Road Swamp bushland. Reptiles, mammals and small, weak-frying birds have little chance of escaping a bushfire and incalculable numbers perish. Amphibians also succumb as do the numerous arthropods, which make up the bulk of wildlife species in the bushland.

Fires more prevalent now

Bushfires are more prevalent now than they were prior to European settlement and when bushland is repeatedly burnt, intentionally or accidentally, some species in the burnt areas are wiped out. And if the burnt bushland is isolated, if there is no connection through vegetated corridors to other tracts of bush, then there is little opportunity for the species destroyed in that site to become re-established.

Another damaging effect of frequent burning of bushland is the inevitable build up of weeds. Harmful weeds such as veld grass thrive after fire and each repeated burn brings an increase in weeds with which few native plants can compete. Overwhelmed by weeds, native understory plants eventually disappear along with the wildlife species that depend on them. Additionally, grassy weeds, which typically dry off in summer, ignite and carry fire more readily than do native understory plants.

One way, therefore, to decrease the risk of fire is to reduce grassy weeds. Veld grass is a formidable weed,



but it does have a weakness: a large percentage of its seeds are destroyed in a fire and those that remain are viable for a relatively short time—a couple of years at the most.

So, in the unlucky event that bushland is burnt, it does at least provide an opportunity to target the fresh new growth of veld grass with herbicide. This treatment needs to be done for just two consecutive years to substantially reduce the weed. Thereafter it's a matter of ensuring it doesn't take hold again from seed coming in from elsewhere.

Drosera species, *Burchardia* and blue squill struggle to compete with an influx of weeds following the February fire in Gibbs Road Swamp bushland.

Swift intervention and care

If a fire starts, a swift response is vital, and once controlled, the fire shouldn't be left unattended too soon. This might seem obvious, but in Forrestdale in recent years at least two fires that had at first been promptly contained, were then wrongly deemed safe to be left unattended. The unsupervised embers later flared up again and the fires sped out of control.

Bushland not to blame

Bushfires not only kill wildlife, they can of course also be a hazard to people; they can kill domestic animals and they destroy property.

But the bushland is not to blame—bushland never self-ignites. The only natural cause of fires is lightning. Most bushfires on the SCP are caused by people.

Accordingly, rather than looking upon bushland as the problem, greater emphasis should be placed on addressing the main causes of fire such as human carelessness, negligence and arson.

Colourful display

On a positive note, an anomalous but striking display of wildflowers often occurs the first season after a fire. This is the plants' response to a stressful situation. They bear a profusion of flowers to ensure enough seeds are produced to safeguard the species should adversity strike again.

Below are some of the flowers found in a fairly weed-free burnt patch in the Gibbs Road Swamp bushland reserve. ✧



Above: Orchids (photographed 18.9.2014) growing in an area of Gibb Road Swamp bushland reserve that was burnt in February 2014. **Clockwise from top left:** Purple enamel orchid (*Elythranthera brunonis*); bee orchid (*Diuris laxiflora*); slender sun orchid (*Thelymitra vulgaris*); cowslip orchid (*Caladenia flava*); yawning leek orchid (*Prasophyllum hians*); lemon-scented sun orchid (*Thelymitra antennifera*); swamp spider orchid (*Caladenia paludosa*). **Below:** Blue squill (*Chamaescilla corymbosa*) and pink rainbow (*Drosera menziesii*) create a stunning display.

