



MAGNIFICENCE



A male Australian Shelduck tickles the lagoon at Pelican Point *Photograph courtesy T Graham-Taylor*

Ducks, swans and geese form the *Anatidae* family. They are all wetland birds, having waterproof plumage, webbed feet and flattened bills. In Australia there are twenty-three common members of the *Anatidae* family.

Most waterways will have resident and visiting species of duck. Of the twelve duck species native to Australia, those we are most likely to see at various and seasonal times of the year around the Swan River Estuary are the Australian Shelduck (*Tadorna tadornoides*), Pacific Black Duck (*Anas superciliosa*), Musk Duck (*Biziura lobata*) and Grey Teal Duck (*Anas gracilis*).

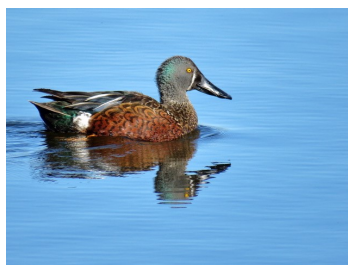
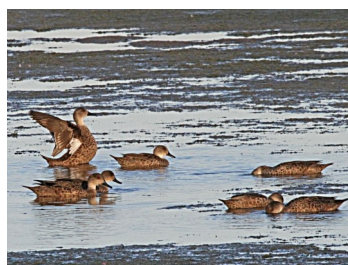
Occasionally we may spot other species, including the Australasian Shoveler (*Anas rhynchos*), Australian Wood Duck (*Chenonetta jubata*), Chestnut Teal (*Anas castanea*) and Pink-eared Duck (*Malacorhynchus membranaceus*).

Species differ in their foraging methods: some dive or dabble, others use special beak adaptations to filter food. Ducks may feed in the water or along the edge - or some even away from the water - on algae, insects, molluscs and grasses.

It is the pretty Pacific Black Duck that we encounter most often at popular picnic areas. Although people may be well-intentioned, feeding ducks (and swans) with bread is *strongly* discouraged as it is detrimental to the birds' health. (Picnickers could consider 'frozen' peas, corn and chopped lettuce as alternatives.)

Ducks tidy and clean their feathers with regular preening. As they groom themselves, waterproofing is maintained by spreading oil from a gland at the base of their tail through their feathers.

Species also differ in nesting preferences: in trees, in tree hollows, in reeds or under dense foliage/bushes - reminding us of the importance of maintaining wide and diverse natural vegetation buffers around our wetlands and waterways.



Grey Teal, Pink-eared, Australian Shoveler and Pacific Black ducks *Photographs courtesy T Graham-Taylor, S Waller & R Napier*

EXHIBITION OPENING

The Overwintering Project: Mapping Sanctuary is an Australia-wide environmental art initiative founded by Melbourne-based artist Kate Gorrington-Smith. It aims to draw community attention to the plight of Australia's most endangered group of birds - our migratory shorebirds - by inviting artists to help make the birds and their local habitats visible.

The *Overwintering: Summer on the Swan* Exhibition focussed attention on the natural habitat provided by the Swan River Estuary - its unique combination of physical and biological features that makes it an important place for around twenty species of migratory shorebirds to return to, year after year.



From the *Overwintering: Summer on the Swan* Exhibition, opened by Professor Lyn Beazley AO on World Migratory Bird Day 2020.

Photographs courtesy E Burton



It was the culmination of a year-long collaboration between The Overwintering Project, the Printmakers Association of Western Australia and the Swan Estuary Reserves Action Group - and part-funded by the City of Melville.

Works exhibited were contributed by the artists to the Overwintering Project Print Portfolio, which travels Australia. Proceeds from the sale of print #2 of each work were generously donated to *BirdLife Australia* in support of its migratory shorebird conservation efforts. Close to \$5000 was raised.

We hope the Exhibition and the many activities organized in its development and promotion will have increased community appreciation of migratory shorebirds - the wonder of their epic journeying and their local habitat needs - and encouraged us all do our utmost to arrest their decline and protect their well-being for future generations.

THREATENED SPECIES DAY BAKE-OFF 2020

Sadly, Australia's biodiversity is currently in decline. More than 1,700 species and ecological communities are known to be threatened and at risk of extinction; and the impact of the massive fires of last summer on species previously considered 'common' has not yet been fully assessed. Exacerbated by climate change, principal threats are habitat loss degradation or fragmentation, invasive species and altered fire regimes.

National Threatened Species Day (September 7) is a time to reflect on the rapid impoverishment of our extraordinarily wonderful natural heritage, and what each of us can do to reverse the situation - especially in 'our own back-yard'. For the last four years, Threatened Species Commissioner Dr Sally Box has held a 'Bake-Off' - a light-hearted event aiming to build community awareness about the serious issue of Australia's threatened wildlife.

To highlight the vulnerability of less-visible critters in an increasingly uncertain future, Robin Napier baked a fabulous cake to honour *Neopasiphae simplicior*, a small black short-tongued native bee. It is listed 'critically endangered'. The bee is found only in Forrestdale Lake Nature Reserve and occupies a total area of around one km², so a single bushfire could spell its end.

Little is known of the bee's relationships and functions within its ecosystem. What species of flora or other fauna may be impacted by its extinction?



Representing *Neopasiphae simplicior*
Photograph courtesy R Napier

FAIRY TERN: A THREATENED SPECIES

The small areas that form the Swan Estuary Marine Park (SEMP) support a number of listed threatened and priority species and communities. However, on National Threatened Species Day we focused our attention on the plight of the Fairy Tern (*Sternula nereis nereis*) - described as 'Vulnerable' under the EPBC Act 1999, due principally to habitat loss.

As they have done for millennia, after wintering in and around the Houtman Abrolhos Islands, Fairy Terns migrate southward in spring, to breed. Around a quarter of the surviving population head to the broader metropolitan region.

In what is now a highly urbanized environment, Pelican Point, Rous Head and Point Walter Spit provide the last-remaining habitat within the Swan River Estuary suitable for the terns' breeding and non-breeding activities. It is imperative to the species' survival that these sites are well protected.

Despite its being legislated for the protection of native flora and fauna, policies and decisions preferencing access for recreation thwart Pelican Point's capacity to fulfil its conservation responsibilities - not only to Fairy Tern but also to other species of Estuary birdlife vulnerable to human disturbance, predation, contamination and habitat destruction.

SERAG's UWA@PP volunteers acknowledged National Threatened Species Day by sharing a Fairy Tern cake with Claire Greenwell, who has undertaken much-needed research to support the conservation of this tiny Estuary treasure.



'Giant' Fairy Tern cake; with life-sized decoy; cutting the cake was a little confronting!

Photographs courtesy C Greenwell & C O'Neill

AUSTRALIA-WIDE #PLUSHIEPROTEST

October 1: taking to social media, many plush toys stood unanimous in their cry for stronger nature laws to protect the various species they represented and their natural habitats.

SERAG received a number of photographs from 'rallies' held across Australia. We fully endorse their desperate calls for robust and effective action against wildlife extinctions.

At one of many rallies Photographs courtesy M Matassa



A RICH DIVERSITY OF..... WEEDS!

This year, winter weeds were prolific in many project sites - all competing for light, water and soil nutrients with our new plantings. Volunteers were kept very busy hand-weeding, devoting many hours to a challenging repetitive task.

Among the tangle of weeds removed from areas of Bush Forever Site 402 were common vetch (*Vicia sativa*), *Fumaria capreolata*, perennial veldt grass (*Ehrharta calycina*) and masses of annual veldt grass (*Ehrharta longiflora*). Along the foreshore at Tompkins Park wild radish (*Raphanus raphanistrum*) was most abundant - although flat weeds, various clover, common storksbill (*Erodium cicutarium*) and marshmallow (*Malva parviflora*) were also thriving. The Attadale foreshore boasted 'the best' false hawkbit (*Urospermum picroides*) and prickly lettuce (*Lactuca serriola*).

We caught most of them just before they dropped their seeds - so hopefully next year's crop will not be quite as lush.



Hand-weeding at Pelican Point, the Attadale foreshore and Tompkins Park foreshore Photographs courtesy A Mraz, A Lim & R Napier

EROSION MITIGATION EFFORTS



Erosion mitigation at Tompkins Park, Pelican Point and along the Attadale foreshore Photographs courtesy C O'Neill

SERAG was pleased to receive a request from Landcare Australia to host volunteers from *Lendlease* for hands-on conservation work on a morning in late October.

The small but strong team provided valuable assistance in planting forty bags and two enormous hedge bags of mature *Juncus kraussii* at a site towards the eastern end of Tompkins Park, where erosion from winter storms and tidal surges is a growing problem.

In early November we commenced efforts to mitigate erosion along a section of the foreshore at Pelican Point, focussing on arresting the ever-widening and deepening loss at the end of a track to the water's edge.

'Soft' mitigation measures using coir matting and rolls, plantings of mature pots of *Cyperus gymnocaulos* and *Juncus kraussii* and fallen branches were used. The track will be steadily narrowed next winter, and eventually fully planted to limit foreshore erosion, as well as reduce disturbance to ospreys using their tower.

In late November a team of Aquinas College students provided SERAG with some terrific help, planting many hundreds of *Juncus kraussii* tube-stock in a narrow margin along the Attadale foreshore. With little natural riparian fallback, erosion has become increasingly threatening to the A-class Nature Reserve there.

PERFECT PARENTING



The story of a Pied Oystercatcher family at Pelican Point *Photographs courtesy T Graham-Taylor*

On August 23 a pair of Pied Oystercatchers were observed nesting with two highly-camouflaged eggs in a shallow scrape of sand on a high part of a dune at Pelican Point. It was a sensible place to nest - an appropriate distance from the water's edge, with some low vegetation cover, and providing a good vantage point from which to watch out for threats. However, as the nest was close to a regularly-used 'goat track', the risk it would fail was concerningly high.

Thankfully, the birds braved any disturbance and the eggs hatched after a long incubation on September 17. By that afternoon the chicks had been guided down to the edge of the lagoon to explore and nibble at food. When tired, they were kept warm under one or other parent's wing; and with this care they survived terrible storms a few days later.

Over subsequent weeks at feeding times, live molluscs collected from a rocky groyne at the end of the Marine Park were flown in at a rate of one every five minutes or so. The technique of opening mussels was carefully taught to the hungry youngsters - repeated lessons forming quite a midden on the beach.

The chicks grew quickly and gained confidence, graduating from the lagoon to the 'big kids pool' of the River. Both steadily (although a little unequally) became less dependent on their parents, who always stayed close by... just in case. By October's end - with more defined plumage, reddening beaks and a slight blush emerging on their grey legs - they discovered they could fly! That skill was honed in November with family outings to nearby attractions, including Mounts Bay Sailing Club - such excursions familiarising them with the local landscape prior to venturing into the greater Estuary.

Although the future may be challenging for these young birds, they are well-prepared - thanks to their devoted parents.

'RIVERS GOT TALENT'

An opportunity to celebrate the ancient beauty of the Derbarl Yerrigan presented itself through *Riversymposium 2020*, organised by the International RiverFoundation - a global organization for the sustainable management of river basins.

People from all over the world were invited to film a river-related performance for 'Rivers Got Talent', to be viewed at the Brisbane symposium in November.

Through the generosity of members and friends, SERAG's contribution was *Scherzo and Cantabile for the Swan* by local composer and early music specialist Glyn Marillier, performed by recorder quartet 'Les bons vivants' at a quiet nook at Alfred Cove - the exquisite music complementing images of the natural loveliness of Estuary life.

Our warmest thanks go to all involved: the composer, the performers, the photographers and to Steve Napier who produced the video. (A copy can be viewed on our Facebook page: [Swan Estuary Reserves Action Group - Home | Facebook](#))

PLOVER APPRECIATION – FROM A DISTANCE – DAY



From a distance Photographs courtesy T Graham-Taylor

BirdLife Australia's 'Plover Appreciation Day' was held on September 16. Taken a few weeks earlier, the photos above show some of the many Red-capped Plovers (*Charadrius ruficapillus*) gathered at Pelican Point for breeding.

Red-capped Plovers are small beach-nesting birds that lay their eggs in shallow depressions close to the water. Both birds and eggs are *extremely* well camouflaged, so nests are easily accidentally crushed by beach users, including casual walkers and fisher-folk. While breeding, plovers are highly vulnerable to disturbance, often meaning that eggs fail to hatch or chicks don't survive. To avoid such tragedies, it is crucial that people keep a good distance from nesting sites.

If their nest is threatened, Red-capped Plovers will try to distract intruders, often faking a wing injury to lead them away. We recommend cordoning-off nesting areas while the birds are breeding as a more effective strategy to protect eggs and chicks from growing numbers of unwary people accessing Marine Park beaches and other susceptible places.

SEMP IMPACTED BY POOR FISHING PRACTICE

Again in recent weeks people seeking beautiful natural experiences along the River have been confronted with the outcomes of poor fishing practice in the Swan Estuary Marine Park (SEMP).

The first photo is of one of two large piles of Common Blowfish (*Torquigener pleurogramma*) found carelessly discarded on the beach at Pelican Point. We believe the second is of a Masked Stingaree (*Trygonoptera personata*), similarly treated but still struggling for life. Both are native marine species with important roles in preserving the ecological health of the Estuary.

The third is of a fisherman, having put resting birdlife to flight, now ignoring signage regarding beach-nesting species currently breeding there.

The SEMP is crucially important in safeguarding the rich diversity of the River's native flora and fauna, not only for their intrinsic value but also for the enjoyment of future generations of people.

Surely it deserves better care and protection.



Photographs courtesy T Chia & C O'Neill



'MY LANDSCAPE MY PLACE'

SERAG felt honoured to be invited to contribute to the 'My Landscape My Place' section of the Changes Gallery of the new WA Museum, Boola Bardip.

The display highlights how natural areas have a profound effect on human health and well-being - both emotionally and physically. Its aim is to inspire visitors to think of the importance of ensuring that we as a community conserve and maintain green/natural spaces in our lives.

Our contribution focussed on how community members can connect through becoming involved in our conservation work in and around the Swan Estuary Marine Park. Hence filming took place at Alfred Cove, Milyu and Pelican Point - on a wonderfully still and beautifully blue day.



A volunteer is interviewed at Pelican Point
Photograph courtesy S Napier

AN UPSIDE-DOWN WORLD



A pardalote nesting box reveals a colony of roosting microbats - including a pregnant female
Photograph courtesy A Mraz

To compensate in a small way for the loss of natural habitat hollows due to the clearing of mature trees over many years, and in recognition of *UWA@PP* volunteers, SERAG has steadily erected artificial nesting boxes at Pelican Point - now totalling five boxes for pardalotes and four for microbats.

Their success has been terrific - although this year we found Gould's Wattled Bats (*Chalinolobus gouldii*) occupying a pardalote box, and a pair of Striated Pardalotes (*Pardalotus striatus*) rather optimistically attempting to find a way into a bat box. Obviously suitable housing is still at a premium!

Microbats play a critical role in ecosystem health, both as insectivores and as a prey species for other animals, such as owls.

Gould's Wattled Bats are nocturnal feeders and can travel more than 10km from their roost when foraging. These lovely little creatures have a body length of 56-75mm, with dark brown fur on their back, a black head and shoulders and lighter brown fur on their belly.

Weighing between 7-16 grams, each eats around 40% of its body weight in insects each night. Thus they play a vital role in controlling insect numbers, including a range of pest species and disease-carrying mosquitoes.

SWAN RIVER MUSSEL REEF TRIAL

In a joint effort between The Nature Conservancy, Murdoch University, UWA, Recfishwest and the State Government, a trial involving the building of artificial mussel reefs in the Swan River has begun. Rather than providing mussels for human consumption, the objective is to improve water quality and fish stocks in the Swan-Canning Estuary.

Sixteen pilot sites in the Estuary between Applecross and Bicton now have reefs of natural limestone which have been 'seeded' with millions of juvenile mussels. If successful, the aim is to construct full-scale reefs, which it is understood will be spread over an area of up to 10 hectares in the Estuary.

The importance to river health of improving water quality and marine biodiversity is indisputable. However, among questions asked at a recent community information evening was one that related to any potential impacts of the project on the hydrology of the Swan Estuary Marine Park - especially the still waters of Alfred Cove - and on natural values other than fish-stocks conserved by the Marine Park and associated reserves. Assurance was given that indirect consequences and possible side-effects were to be carefully monitored in the trial project.



Work begins on laying the reefs
Photograph courtesy C O'Neill

Recreational fishing in the small and ecologically fragile Marine Park is already cause for concern, with trampling of native vegetation and the disturbance and entanglements of native fauna at unsustainable levels. As there are *many* other areas of the Swan Canning River Park available for fisher-folk to enjoy, we hope that through the trial this growing threat to the River's wider biodiversity will be addressed - that the Swan Estuary Marine Park will be re-zoned as a 'no-take' sanctuary for wildlife within the Swan Canning River Park.

NEW ENCOUNTERS

Improvements in the biodiversity protection and ecological corridor functions of the Tompkins Park foreshore are slowly being revealed to those who look carefully.

These photographs were forwarded by a contractor engaged in weed-management at one of our recovery sites: a Buff-banded Rail trying to draw him away from its nest, and a Southwestern Crevice Skink (*Egernia napoleonis*) making sure the intruder wasn't a threat (although what the rather large skink was looking for doesn't bear thinking about!).

While more conservation effort is required along this narrow riparian margin, images such as these are very encouraging - rewarding the commitment of our many volunteers.



Photographs courtesy T Heckler

ANNUAL GENERAL MEETING

SERAG's AGM was informative, enjoyable and well-attended - a fitting culmination to a full and productive year.

PhD candidate Claire Greenwell proved an excellent guest speaker, sharing her extensive research on the Estuary's threatened Fairy Tern. Reports on the year's activities were presented and a new Management Committee was formed.

Most importantly, our sincere thanks were extended to those with whom we have worked and whose support we have enjoyed: managing authorities DBCA and the City of Melville; grant providers State NRM and SALP; the Printmakers Association of Western Australia, the UWA Guild Volunteering Hub, *Curtin Volunteers!*, *Wirambi Landcare* and other groups which have supplied us with significant help in our various activities - and especially our own members.

PLANS FOR 2021

As well as continuing our usual hands-on maintenance efforts at Alfred Cove, Milyu and Pelican Point, SERAG has applied for two grants to support additional conservation work at Alfred Cove and Pelican Point.

If our applications are successful, the Alfred Cove grant will facilitate the recovery of a particularly sensitive area of A-Class Nature Reserve, while the grant for Pelican Point will help extend an area in the terrestrial part of the Marine Park we have been working on for some time, and support our elimination of bulbous weeds more broadly in BFS402.

In addition to our regular monitoring of water- and bush-bird populations at Alfred Cove, we plan to conduct a survey of bat species using Pelican Point. We understand there are thirteen species of microbats in the South-West region, but due to their small size, nocturnal behaviour and cryptic roosting habits they are rarely seen by the general public and often overlooked in biodiversity assessments.

All going well, SERAG also hopes to present *Saltmarsh and Shorebirds* - a community event prepared for the 2020 National Trust Heritage Week Festival, but cancelled due to COVID-19. It will provide an opportunity to explore the complex inter-relationship of native flora and fauna within the threatened ecological community of coastal saltmarsh at Alfred Cove, including the site's essential habitat value to local and trans-equatorial migratory shorebirds.

The deepening of cooperative relationships with other interested and like-minded community groups will be pursued; and, as a priority, we will resume our advocacy for stronger protections for the Estuary's exquisite natural heritage values - with an emphasis on promoting the well-being of the Swan Estuary Marine Park, its adjacent nature reserves and riparian margins.

There will be many opportunities to be involved in SERAG's efforts. We look forward to your continued interest and support, and hope to see you 'about the Estuary' soon.



FOR YOUR DECEMBER CALENDAR

- TREEmendous Tuesdays Alfred Cove 6.30am - 8.30am
- 14 Monthly Monday at Milyu 7.00am - 9.00am
- 19 Saturday Morning at the Cove 7.30am - 9.30am
- Watering at Alfred Cove and Pelican Point

Please contact SERAG to register your interest in any event.



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