



TO HAVE AND TO HOLD, FROM THIS DAY FORWARD...



A pair of Crested Tern (*Thalasseus bergii*) engaged in a beautiful courtship ritual were photographed at Pelican Point at the start of Spring.

With crests erect and wings trailing, one offers the other a lovely fresh Perth Herring (*Nematalosa vlaminghi*), which is coyly accepted. The mate parades around its partner, then both birds fly off.

So begins a new breeding season.

The Crested Tern is a grey and white bird with a lemon-yellow, slightly curved beak. Its wings are long, its tail is forked and its legs and feet are black.

In breeding plumage, it is *very* handsome with its glossy black cap and long crest contrasting with its white face and under-parts. During non-breeding seasons its cap recedes and becomes rather mottled.

The pair's nest will be a shallow scrape in the ground, or among rocks or low vegetation. Usually a single egg is laid, sometimes two. Incubation lasts for 25 to 30 days and is carried out by both sexes, and both care for the young. If all goes well, their chick will fledge after around 38 to 40 days but will remain dependent on its parents for a further three months.

The Crested Tern is distributed around the Australian coastline and is the second largest Australian tern after the Caspian Tern.



Photographs courtesy T Graham-Taylor

WORLD RIVERS DAY PROTEST

World Rivers Day highlights the many values of our rivers, strives to increase public awareness, and encourages the improved stewardship of all rivers around the world.

Rivers in virtually every country, including Australia, face an array of threats, and only through the community's active involvement can their health be assured in the years ahead.

On the eve of World Rivers Day it was therefore fitting that people of all ages and from all over Perth gathered to represent widespread community disquiet and express deeply-held objections to a planned massive private wave park and retail development on the shores of the fragile Swan Estuary Marine Park, including on Crown Land clearly earmarked for conservation.

The Swan River is much-loved and deserves the best of care.



Yoondoordo and others gather in protest

Photograph courtesy M Owen

PETITION PRESENTED TO PARLIAMENT



Petition presented on the steps of Parliament House Photograph courtesy C O'Neill

Lot 9789 is required as a buffer to support and protect the superb natural heritage values of the Swan Estuary Marine Park. The *Swan Estuary Marine Park and Adjacent Nature Reserves Management Plan* recommends as an important management strategy, that Lot 9789, Crown Reserve 35486, form part of the Alfred Cove A-Class Nature Reserve. Further, the recent whole-of-government draft *Perth and Peel Green Growth Plan for 3.5 million* also recognizes the land's vital importance to Estuary biodiversity and ecological health, and designates that the Crown Land Lot 9789 is to be brought into the Conservation Estate in the first stage of implementation.

Given government policy recommends that buffers to Conservation Category Wetlands should be *at least* 50 meters in width, and Lot 9789 lies entirely within Bush Forever Site 331 and within the Development Control Area of the Swan-Canning River Park, we organized a Petition for presentation to both the Legislative Assembly and Legislative Council.

The issue has been widely recognised as a major one, with Estuary-wide environmental implications. In just a few short days over 1100 signatories from across Perth had requested that any application from the City of Melville to purchase Crown Land Lot 9789 be rejected, and, as a matter of urgency, the Government legislates to draw Lot 9789 into the Conservation Estate as part of Alfred Cove A Class Nature Reserve Number 35066.

The Petition to the Legislative Assembly was accepted by Mr Dean Nalder MLA (Bateman) and Mrs Lisa O'Malley MLA (Bicton), and Hon. Alison Xamon MLC (North Metropolitan Region) received the Petition to the Legislative Council.

MELVILLE BIRD SANCTUARY & DISCOVERY CENTRE PLAN

The rich natural heritage safeguarded by the Swan Estuary Marine Park and associated Reserves is of inestimable worth, as are the cultural and social benefits of public open space along the River.

As a positive initiative to protect these values, the Alfred Cove Action Group (ACAG) has recommended establishing a *Melville Bird Sanctuary and Discovery Centre* at Tompkins Park.

Their plan has evolved from SERAG's alternative vision, offered in early 2017, and will:

- celebrate the outstanding natural and cultural values of the Estuary and strengthen and protect its ecological health,
- enhance the exceptional local and international eco-tourism and passive recreational opportunities along its margin,
- preserve public open space to the benefit of current and future generations of the Perth community, and
- retain the unobtrusive and popular Melville Bowling Club *in situ* for the enjoyment of the local community.

The concept is sympathetic to the landscape, minimises ground-water use and the impervious built footprint, and is community-focused. It allows for the realignment of the dangerous dual-use pathway from the shoreline and brings the narrow ribbon of Crown Land into the conservation estate as a protective buffer for the River.

Please consider supporting ACAG's on-line petition: [Sign the Melville Bird Sanctuary & Discovery Centre Petition](#)

SERAG is greatly concerned that the City of Melville has applied to the Department of Planning, Lands and Heritage to purchase a significant portion of Crown Land Lot 9789 - a narrow strip of land bordering the Swan Estuary Marine Park at Alfred Cove - to facilitate a commercial lease for wave park proponent Urbnsurf.



1. Viewing Platform
2. Upgraded and realigned dual use path
3. Revegetation/ Buffer area
4. Existing A Class Nature Reserve
5. Living Stream
6. Footbridge
7. Picnic tables and BBQs
8. Nature and adventure playground
9. Sanctuary Cafe
10. Melville Bowling Club & Community Center (Ground floor)
11. Discovery Centre (built above Bowling Club)
12. Existing car park and proposed shade trees
13. Proposed trees to screen Canning Highway
14. Atwell Arts Centre
15. Overflow parking
16. Sculpture lawn

WAVE PARK UNDER CONSTRUCTION AT TULLAMARINE



Photographs courtesy R Pride

NATIONAL LANDCARE WEEK

In support of SERAG's efforts to restore the foreshore of Tompkins Park (east), Landcare Australia generously provided some greatly-appreciated additional resources, including seedlings and a team of corporate volunteers.

Eight Landcorp volunteers joined SERAG during National Landcare Week to plant wetland herbs and sedges in the extensive swale where weeds of all kinds had smothered a diversity of coastal saltmarsh species, and been removed.

Over two hundred 11 litre bags and six enormous 'hedge' bags of mature sedges were included, to better-resist the increasing intensity of storms impacting on the site. These will grow over summer to strengthen the narrow ribbon of coastal saltmarsh that has fortunately survived massive and various weed incursions and other urban pressures.

The efforts of Landcorp complemented those of our tireless *Tremendous Tuesday* volunteers, who were encouraged by the '*before and halfway*' photographs (below) to continue this arduous restoration work.



Planting large bags of *Juncus kraussii* & *Schoenoplectus validus*
Photographs courtesy C O'Neill



Woody starwort, prickly lettuce, *Typha orientalis*, fleabane, and other weeds choke the foreshore & New plantings of *Juncus kraussii*
Photographs courtesy M Matassa

LIFTING THE LAST OF THE BRAZILIAN PEPPERS

Our *Coastwest Tompkins Park Stage 2 Restoration Project* is now concluded.

In September the last of the Brazilian peppers were lifted by crane from the eastern end of the Tompkins Park foreshore, to prevent the trampling of the surrounding native vegetation, and the bare expanses left were planted with many hundreds of native sedges and a few sapling shrubs and trees.

During October new signage was erected and final weeding and in-fill planting was completed by SERAG volunteers, with help from *Curtin Volunteers*!.

While the work has been extremely challenging and on-going care will be essential, SERAG is very grateful for the wholehearted community support that has helped return this neglected and weed-infested part of the Marine Park foreshore to a more ecologically healthy wildlife habitat and corridor.



Photograph courtesy C O'Neill

NATIONAL THREATENED SPECIES DAY DISPLAY

Changes to the landscape and native habitat as a result of human activity have put unique communities and species at risk, to the extent that over the last 200 years many have become extinct. The numbers of others continue to plummet, with more than 1,700 species listed by the Australian Government as being at risk of extinction.

The small interdependent sanctuaries of the Swan River Estuary at Alfred Cove, Milyu and Pelican Point contribute landscape essential to the survival of some of these - among them the Threatened Ecological Community of Coastal Saltmarsh and birds such as Fairy Tern and various migratory species.

Among the trans-equatorial migratory waders spotted by some of our volunteers in the Swan Estuary Marine Park this season have been Grey Plover, Red-necked Stint, Common Greenshank, Common Sandpiper, Terek Sandpiper, Whimbrel and Pacific Golden Plover.

To mark National Threatened Species Day the Grove Library in Cottesloe hosted a display of some of our material about these three precious environments, the urban pressures they face and how they can be better protected.

JOHN CURTIN WEEKEND

Nine students from Curtin University spent time with SERAG over the 'John Curtin Weekend', completing infill planting of sections of Bush Forever Site 402 where thick stands of *Casuarina glauca* had been removed a few years ago.

Sustained by a delicious morning tea and lunch provided by SERAG volunteers, the students worked very hard! Around 600 sedges and a few shrubs were planted to strengthen the site's habitat value for native fauna, including quenda.

John Curtin Weekend is CV's largest community project, where volunteers work with the locals on community projects at regional and metropolitan sites. We hope to host another group in 2019.



Photographs courtesy C O'Neill

EROSION MITIGATION

Given the increasing intensity of storms, foreshore erosion is an on-going challenge, requiring careful management.

The problem is exacerbated by the narrowness of the ribbon of riparian vegetation remaining along the River's margin, providing little natural fall-back capacity for native vegetation impacted by changes in climate and extreme weather events.

For some years, SERAG has engaged in 'soft' erosion-mitigation work in particularly susceptible areas - ie we have used natural materials such as coir and plantings of sedges to protect and strengthen the existing but threatened coastal saltmarsh community bordering the Swan Estuary Marine Park.

Coir rolls dampen the force of waves, preventing undercutting of vegetation as well as softening the impact on new plantings.

Recently our *Saturday Morning at the Cove* team and volunteers from Brookfield Place successfully replaced a number of degraded coir rolls and bolstered *Juncus kraussii* sedgebanks and samphire species along the Attadale foreshore.

Funding for materials was provided through the State Government's *Community Rivercare Program*, which aims to conserve the natural, cultural and social amenity values of the rivers, tributaries and urban drains in the Swan Canning Catchment.

Rolls of coir are replaced

Photograph courtesy N Peters & C O'Neill



HABITAT RECOVERY

Following a morning's weeding, we had two artificial nesting boxes erected by Joe Tonga in the Pelican Point bushland, as part of our SALP habitat-recovery project. One is designed for micro-bats and the other for pardalotes.

We dedicated the boxes to two outstanding *UWA@PP* volunteers - Amal and Erchuan - who have devoted many hours to helping SERAG, while completing postgraduate degrees in Agriculture and Mathematics respectively.

The boxes will help to address the problem of there being too few trees remaining that are old enough to support natural nesting hollows for native fauna.

Erchuan's box was placed near one erected last year to acknowledge Jiwei Li, and both boxes are now occupied by nesting pairs of Striated Pardalotes.

We hope a colony of Gould's Wattled Bats will soon take up residence in Amal's.



Photographs courtesy J Li & T Graham-Taylor

PINK-EARED VISITORS

In mid-October, bird-watchers were thrilled to see a pair of Pink-eared Duck (*Malacorhynchus membranaceus*) on the lagoon at Pelican Point. A small nomadic duck more usually found on inland swamps, this species will fly great distances in search of water.

The Pink-eared Duck has a large highly specialised bill fringed with fine lamellae (grooves). Water is sucked through the bill-tip, then expelled through the grooves along the side of the bill, filtering out the microscopic plants and animals, which make up the bulk of its diet. It has strongly barred brown flanks and a large brown eye patch on a white finely barred face. There is a small pink patch behind the eye, giving it its common name.

Pink-eared Ducks form monogamous, probably life-long pair-bonds.



Pink-eared Ducks

Photograph courtesy T Graham-Taylor

YOUNG VOLUNTEERS RECOGNISED

Jiwei Li has been SERAG's link with Guild Volunteering for almost three years, helping to coordinate our *UWA@PP* teams each month. For her efforts she was awarded *Student Volunteer Coordinator of the Year* by the UWA Guild. Her work with SERAG and other causes and charities was also acknowledged through Convocation's *Outstanding Student Volunteer Award*, for which she received the Convocation Medal.

Since its inception in 1998 the Swan Alcoa Landcare Program (SALP) has provided \$8.5 million to fund 1,351 projects and support more than 40 community groups, including SERAG.

At an awards evening to celebrate SALP's 20th Anniversary, **Nicola Thomas** was a finalist recognized as an '*... up and coming environmentalist who has embraced landcare and brings a strong arm, sound technical knowledge or a good attitude to the site or project*'.



Jiwei Li and Nicola Thomas at their awards ceremonies. SERAG warmly congratulates both young women on their richly-deserved acclaim.

PRESENTATION ON ESTUARY DOLPHIN AT AGM

SERAG's Annual General Meeting was once again well-attended and successfully conducted, with reports on the year's activities and finances presented and approved, volunteers acknowledged and a new Management Committee elected. As well, Dr Delphine Chabanne proved an extremely stimulating guest speaker.

A member of Murdoch University's Aquatic Megafauna Research Unit, Dr Chabanne has studied the Indo-Pacific Bottlenose Dolphin (*Tursiops aduncus*) since 2011, successfully completing her PhD on the species. She has been monitoring resident dolphin in the Swan Canning Riverpark monthly since June 2015, collaborating closely with the [Dolphin Watch](#) citizen science project.

Her message: the best future for our dolphins lies with ecosystems that are healthy and resilient and with a community that is actively engaged in their conservation.

There are currently only 14 adults (8 females and 6 males), 6 juveniles and 4 calves in the Estuary. The recent death of Pebbles - following closely on that of Highnitch and her calf - has unfortunately impacted greatly on their population.



Dr Chabanne (left) is thanked by Margaret Matassa

Photograph courtesy R Napier

AMAZON FROGBIT ALERT

DBCA is calling on Perth residents to help manage the spread of Amazon frogbit (*Limnobium laevigatum*), a highly invasive aquatic weed.

An escapee from the aquarium industry, it has **a leaf the size of a five-cent piece** and is able to double its biomass in a few days. By smothering habitat it has the potential to destroy wetland/ river health and biodiversity.

Amazon frogbit is now registered and declared a pest under the Bio-security and Agriculture Management (BAM) Act 2007. Anyone who sees this weed should contact the Department on 9278 0900 or email rivers.info@dbca.wa.gov.au.



Photograph courtesy SERCUL

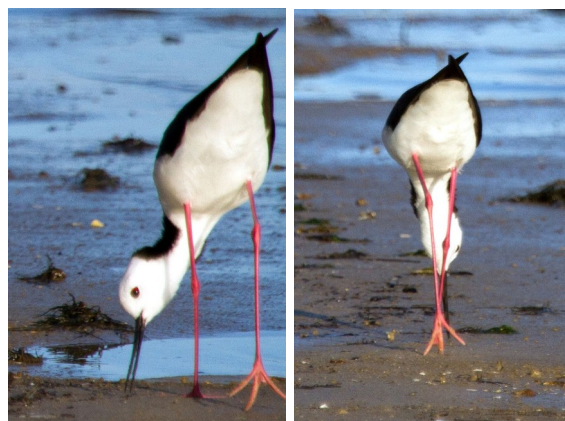
THE TAIL-END

The two photographs shown (right) are of one of our beautiful shore birds - a Black-winged Stilt (*Himantopus himantopus*).

This particularly neat and refined-looking bird is a widely-distributed very long-legged wader in the avocet and stilt family. Essentially black and white with lovely pink legs, it weighs up to 200g and is between 33 and 39cm from tip to tail. It is a social species, usually found in small groups.

Black-winged Stilts prefer freshwater and saltwater marshes, mudflats, and the shallow edges of lakes and rivers. Its long, slender bill is described by Birdlife Australia as 'like a pair of fine tweezers', and used to peck and ingest only very small food such as molluscs, miniscule crustaceans, algae, flies and aquatic insects. Its nest may be a simple scrape in the ground or a mound of vegetation near the water.

Fortunately Black-winged Stilts can be found feeding, resting or nesting on the relatively protected margins of all three areas of the Swan Estuary Marine Park, delighting those who pause quietly to look and listen.



Photographs courtesy T Graham-Taylor



FOR YOUR DECEMBER CALENDAR

- TREEmendous Tuesdays: Alfred Cove 6.30am - 8.30am
- 07 (Fri) Bushcare Alfred Cove 9.00am - 12.30pm
- 10 Monthly Monday at Milyu 7.00am - 9.00am
- 22 Saturday Morning at the Cove 7.30am - 9.30am
- Watering at Alfred Cove & Pelican Point

Please contact SERAG to register your interest and for further details.
Please check our website for a calendar of events for the year.



WITH ALL GOOD WISHES
for the
CHRISTMAS SEASON



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