



## NATIONAL SCIENCE WEEK AT POINT WALTER

On the morning of Sunday August 6th SERAG celebrated National Science Week by organising a family-friendly exploration of the Swan River Estuary.

For a few hours Point Walter was transformed into a hub of scientific investigation as young and old engaged in a selection of rich educational experiences.

Focus was given to birds using the Point Walter Spit and the recently-formed island at its end for nesting, resting and foraging: beautiful beach-nesting birds such as Pied Oyster-catcher, threatened Fairy Tern and tiny Red-capped Plover that lay their heavily-camouflaged eggs in simple scrapes of sand on the beach - **so easily trampled or disturbed by walkers.**

Our guest speakers were outstanding.

Elder Dr Noel Nannup introduced the discussion by telling of the deep cultural significance of the ancient *Derbarl Yerrigan* to Aboriginal people.

A little later: zoologist Dr Milly Formby explained the needs of migratory shorebirds - whose habitat is being destroyed both here and along their route to Arctic regions - and how to help protect these and the Estuary's beach-nesting birds from human disturbance; Dr Kerry Trayler (Principal Scientist with DBCA's Rivers and Estuaries Division) simplified for us some of the complexity of elements influencing general Estuary health, and ecologist Dr Mike Bamford outlined major causes for the plummeting numbers of some Estuary birds and the growing populations of others.

Between sessions, people joined bird-watching groups, used microscopes to explore benthic matter that nourishes the water birds we see probing the River's mudflats and shallows, and browsed displays of photographic and other material. Colouring-in bird illustrations proved popular too!



Young Red-capped Plovers  
at Point Walter  
(Note tennis ball in the background)  
Photograph courtesy F Webster Wilkinson

 national science week 2017

  
An Australian Government Initiative

  
Inspiring  
AUSTRALIA



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birdlife  
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Swan Estuary Reserves Action Group Inc.



Our National Science Week project was supported by the Australian Government as well as other organisations and volunteer groups. We extend sincere thanks to the Western Australia Coordinating Committee for National Science Week for the small grant that underpinned the event, the City of Melville for allowing us to use the site, and the many individuals who generously shared their time, wisdom and understandings with the community.



# PLANTING SEASON

Taking advantage of good rains SERAG volunteers have been busy planting hundreds of sedges, shrubs and trees.

On some occasions we have been assisted by students from Curtin University or the University of Western Australia, and by Conservation Volunteers Australia. UWA volunteers have worked hard on a monthly basis to extend our bush-care efforts in Bush Forever Site 402; *Curtin Volunteers!* have contributed their energies at Milyu, planting around 300 dry-land species along the narrow foreshore, while CVA has assisted us at Milyu, Pelican Point and Alfred Cove.

We greatly appreciate the generosity, commitment and enthusiasm of all our volunteers - working as they regularly do on challenging tasks, sometimes in challenging weather.



Planting at Alfred Cove, Pelican Point and Milyu Photographs courtesy M Matassa & C O'Neill

## EROSION MITIGATION AT MILYU

Persistent and abnormally high tides and strong winter storms have taken a toll at each of the Swan Estuary Marine Parks.

Particularly at Milyu and Pelican Point, around a meter of strong, mature sedges have been washed away and mature trees undermined, exposing root systems.

Given the narrowness of each of the riparian margins, such losses are significant; hence work has commenced on replacing as much as we can.

At Milyu, Metropolitan Marine Park staff and volunteers planted eight-hundred and fifty sedges in late August - including fifty of the large bags of *Juncus kraussii* shown in the photo - building on plantings completed earlier in the season; while litter washed up onto the foreshore filled over five enormous bags.

Further restoration will be completed at Milyu, Pelican Point and Alfred Cove during September.



Milyu

Photograph courtesy P Rebuck

## PROGRESS AT POINT WALTER

Restoration of the eastern embankment of Point Walter has made wonderful progress over the last three years. Following the hand-removal of olive saplings by our volunteers and the removal by a contractor of enormous mature woody weeds choking the bushland, erosion-control matting has now been laid and native seedlings densely planted throughout it by Melville's hard-working Environmental Field Crew.

The replacement vegetation is indigenous to the site, all grown from seeds collected from local species. These will eventually mature to provide food and shelter for Point Walter's rich diversity of native fauna, including birdlife, mammals such as quenda, and small reptiles and frogs.



Enormous Brazilian Pepper and feral Olives are removed and replaced Photographs courtesy C O'Neill



# PLASTICS = PROBLEMS

## BAGS



The plastic bag you use once today will take up to **1000 years to break up**<sup>2</sup> - this means it will share the planet with more than 10 generations of your descendants! We add around 80 million bags to the Australian ocean each year<sup>3</sup>, killing our birds and marine life which mistake them for food.

## BOTTLES



As every piece of plastic ever made still exists today<sup>4</sup>, it's alarming that each year, Australians add around **370 million plastic water bottles to the landfill** - and generate 60,000 tonnes of greenhouse gas emissions through the production, transportation, and refrigeration required to replace them with new ones<sup>5</sup>.

## BEADS



Microplastics can be microbeads from personal products, or microfibres from synthetic clothing. They are up to 1000 times more toxic than the surrounding sea water, as chemicals stick to their surface<sup>6</sup>. Did you know that if you eat seafood, **you swallow around 11,000 pieces of plastic each year!**<sup>7</sup>

As *The Guardian* newspaper wrote on July 7:

*We all know the horrors of plastic. The way it hangs around without biodegrading for centuries, the way it's clogging the stomachs of birds, how it creates islands in the ocean for marine life to get stuck in, how it pollutes our riverways and motorways as non-biodegradable rubbish.*

In 2011 Perth's Western Metropolitan Regional Council launched *Plastic Free July*, now an international campaign which aims to raise awareness about the amount of single-use disposable plastic in our lives and challenges people to do something about it.

Apart from reducing SERAG's use of plastic, each month at Milyu we collect dozens of plastic straws, lolly wrappers, balloons, bait bags, cups, bottles and their caps from the foreshore.

**It's easy, so why not join us!**

Source: Conservation Council of WA

## DRAIN DISASTER

For many years now SERAG has devoted much of our time and energy to cleaning up what had been a smelly and weed-choked drain behind Atwell House. Draining directly into the A-Class Nature Reserve and Marine Park at Alfred Cove, we were concerned that the contaminants, pollutants and nutrients collected from roads, residences and businesses around Canning Highway were adversely affecting native flora and fauna.

Prior to commencing our efforts the drain was filled with such woody weeds as Brazilian Pepper, Victorian Tea-tree and Castor Oil, as well as Deadly Nightshade, Kikuyu and *Typha orientalis*; so in consultation with and approval from the City of Melville, SERAG raised thousands of dollars to commence major weed-management tasks and purchase replacement vegetation - mainly sedges.

Since then, we have contributed many hundreds of volunteer hours in regular maintenance: hand-weeding and collecting loads of litter. (We once were excited to find a \$50 note in the plug, but it turned out to be a forgery!) The physical work has been unpleasant, strenuous and difficult; but our members, volunteers from the wider community and corporate groups have always been keen to support the project.

In 2013, we suggested to the Council that the drain could be relatively simply converted into an attractive, fully-functioning 'living stream', using the natural fall of the land and an existing culvert to widen the outlet, thus facilitating but slowing the velocity of flow and enabling a more thorough removal of pollutants.

While the conversion did not progress, nevertheless we managed to maintain the drain well, allowing water flow but using native sedges as filters. Indeed, families of ducks, other birdlife and swamp tortoise had begun using it as habitat.

We were therefore appalled to discover that, on a single day in June, years of steady environmental gain had been obliterated.

Instead of deepening and widening the top of the drain a little - as had been planned and agreed upon by the two relevant departments within the City of Melville - it was all totally cleared, apparently due to a miscommunication with the contractor.



Photographs courtesy C O'Neill & R Napier

# PALMS REMOVED AND REPLACED

On a cold, wet day in July a reliable and careful contractor removed palm trees from the foreshore at Pelican Point.



Themselves a weed species, the palms also supported colonies of feral rats and lorikeet, both of which pose threats to native birdlife.

The balls of root mass were preserved *in situ* to stabilize the foreshore and a few days later - in better weather - a team of students from UWA assisted SERAG in planting sedges and shrubs in the areas disturbed by the removal.

Work was made possible through a grant from the Swan Alcoa Landcare Program (SALP) - a Community Program Funded by Alcoa of Australia and the Department of Biodiversity, Conservation and Attractions.



Cotton and date palms removed by contractor Photographs courtesy C O'Neill

## TOMPKINS TRANSFORMATION

Walkers and cyclists who use the dual-use pathway along the foreshore of the Swan Estuary Marine Park at Tompkins Park will have noticed that a large date palm has been removed.

The River Park Unit of the Swan Region Parks and Wildlife Service have carefully cut and taken away two enormous truckloads of palm fronds. To avoid damage to surrounding vegetation, the trunks have been left *in-situ* to break down naturally. SERAG volunteers have planted dozens of mature *Gahnia trifida* and *Juncus kraussii* around the remains, thus providing habitat while preventing acid-sulphate soil problems.

And there is more good news!

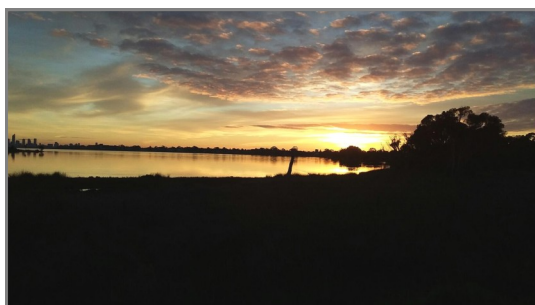
Photograph courtesy C O'Neill



SERAG has been successful in its application for Coastwest funding with which to commence the second stage of improving the ecological health of the narrow ribbon of Marine Park foreshore at Tompkins Park. Commencing at the eastern end, the shocking invasion of weeds such as fleabane, woody starwort and wild radish and the expanding swathes of Brazilian pepper and typha will be steadily managed and replaced with native species.

We hope to commence work in late September.

## RISE AND SHINE!



Sunrise over the Estuary  
Photograph courtesy R Napier

Over winter, the TREEmendous Tuesday Team bravely persisted in its early morning bushcare work, gathering each week at various locations along the foreshore at Alfred Cove for a 7.00am start.

Reluctance in leaving their warm beds was often quickly forgotten as volunteers experienced fabulous sunrises and took pleasure in the sheer beauty of the River on cold and frosty mornings.

No doubt sharing in Margaret's hot home-brewed coffee and delicious freshly-baked cake after the event helped maintain enthusiasm as well!



# ESTUARY HABITAT POISONED AGAIN AND OSPREY SHOT

Unfortunately the cruel destruction of our Estuary's wonderful flora and fauna continues, causing deep sadness and great alarm within the community.

At Alfred Cove, large swathes of healthy bushland vegetation - that had been illegally poisoned a few years ago, but recently restored - have once again been targeted.

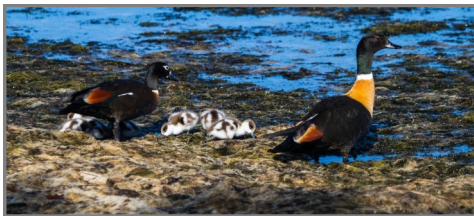
Further, the body of a young male osprey was found dead on the foreshore. Taken by a volunteer to the Curator of Ornithology at the Perth Museum for examination, two shots were found to be the cause of death.

Anyone with information that may lead to the apprehension of the person or persons involved in these shocking behaviors is urged to contact the Police.



The body of a lovely young osprey  
Photograph courtesy T Graham Taylor

## A VULNERABLE LITTLE FAMILY



This vulnerable little family of Australian Shelduck (*Tadorna tadornoides*) has been quietly observed over recent weeks at Pelican Point.

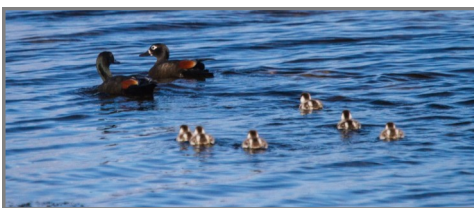
Carefully tended by both parents, nevertheless the brood faces many threats and challenges at this exposed site. Unfortunately only a few of the chicks may survive - predators, human disturbances and wild weather will take their toll.



Also known as Mountain Duck they are large, handsomely-coloured birds. The female is slightly smaller than the male and can be easily distinguished by a white ring around her eye and the base of her bill.

The species is monogamous and some birds are known to form permanent couples. They usually nest in a large tree hollow, well lined with down. However, they have also been known to breed in rabbit burrows - which is more likely at Pelican Point! They breed from July to December, raising young from a clutch of 10 to 14 eggs. Only the female incubates the eggs, while the male defends the brood territory.

Australian Shelduck graze on green grass on land or in shallow water and also eat algae, insects and molluscs.



Photographs courtesy T Graham Taylor

## IMPROVING THE POINT

The benefits to the human community of conserving natural areas have been well-documented.

Many types of benefits have been studied, although improvements to physical health, cognitive performance and psychological well-being have received much more attention than the social and spiritual benefits of interacting with nature.

At a minimum, the quiet enjoyment of nature soothes any monotony in our daily lives, enhancing our quality of life.

If any more proof of its importance were needed, surely this photograph helps to provide it: a wedding party has chosen an area of recently restored bushland at Pelican Point as a tranquil setting for their very special day!



Forming beautiful memories in a beautiful place  
Photograph courtesy S Graham Taylor

We wish the couple every happiness and hope that this beautiful place will survive to grow even more lovely for their children, grandchildren and great-grandchildren to enjoy.

# BULBOUS BLITZ BEGINS

Cape tulip is the common name applied to two toxic plants native to South Africa: the one-leaf Cape tulip (*Moraea flaccida*) and the two-leaf Cape tulip (*M. miniata*). They were introduced to Australia as garden plants because of their attractive flowers and hardy nature.

They soon 'jumped the garden fence' and both are common and widespread in the south-west of Western Australia. They are now 'declared pests' - ie plants that are prevented entry into the State or have control or keeping requirements within the State.

Cape tulips are members of the iris family, Iridaceae - a large family with both native and exotic species in Western Australia. Examples of other weedy species are freesia (*Freesia* hybrid), some gladiolus (eg, *Gladiolus caryophyllaceus* and *G. undulatus*) and watsonias (*Watsonia* spp.), which are all native to South Africa.

## And we have most of them at Pelican Point!

Wavy Gladiolus (*Gladiolus undulatus*) is found solely in the western third of the Reserve, Pink Gladiolus (*Gladiolus caryophyllaceus*) at the eastern and south-eastern end, whilst Freesia (*Freesia alba x leichtlinii*), One-leaf Cape Tulip (*Moraea flaccida*) and Watsonia (*Watsonia meriana* var. *bulbillifera*) are found mostly in the central third.

While in recent years we have focussed on removing large swathes of Watsonia, this season we have commenced managing the other bulbous weeds as well. This challenging and long-term work will greatly improve the health of the Reserve.

Again, SALP funding is supporting our efforts.



Cape tulip, Freesia & Watsonia  
Photographs courtesy  
Department of Agriculture and Food

## ANNUAL GENERAL MEETING

SERAG's Annual General Meeting will be held on **the evening of Thursday October 5th**, commencing at 6.00pm and concluding - after light refreshments - at around 8.00pm.

All members are warmly invited to attend to help celebrate a terrific year and plan for a positive future.

As always we will commence with an interesting guest speaker, and the meeting itself will be brief, enjoyable and to the point: reports will be presented; our Constitution updated to ensure it complies with the *Associations Incorporations Act 2015* and a new Management Committee elected.

Please consider joining the Committee - your energies and enthusiasm will very welcome!

The meeting will also provide an opportunity to renew your membership, catch up with old friends and welcome new members into our group - **so please keep the evening free.**

Further information will be forwarded soon.

Please RSVP for catering purposes.



## FOR YOUR SEPTEMBER CALENDAR

- National Biodiversity Month
- TREEmendous Tuesdays: Alfred Cove 7.00am - 9.00am
- 02 (Sat) UWA@PP 8.30am -10.30am
- 11 Monthly Monday at Milyu 8.00am -10.00am
- 23 Saturday Morning at the Cove 8.00am - 10.00am
- 24 (Sun) John Curtin Weekend Pelican Point 9.00am - 2.00pm
- 29 (Fri) Corporate Bushcare Day Alfred Cove 9.00am - 2.30pm

Please contact SERAG to register your interest and for further information.



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