



## CROWN LAND RETAINED & LEASE CANCELLED

The Swan Estuary Reserves Action Group warmly congratulates the McGowan Government for Lands Minister Ben Wyatt's decision to retain as Crown Land the narrow border along the shoreline of the Swan River Estuary Marine Park at Alfred Cove, as well as the City of Melville for reaching a mutual agreement with the proponent to cancel a ground lease for a Wave Park to be located at Tompkins Park.

These decisions open the way for future foreshore land-use that complements, strengthens and protects Alfred Cove's outstanding natural heritage and visual landscape values - for their intrinsic worth, their ancient cultural significance, and for the enjoyment of present and future generations of the Perth community.

SERAG has requested the incorporation of the Crown Land into the Conservation Estate where it will contribute to the development of a vital protective riparian buffer and ecological corridor for the Marine Park.

Although the future well-being of Swan River Estuary Marine Park at Alfred Cove may remain insecure, we nevertheless welcome the positive reflection of community wishes to conserve the site, and thank all who contributed to these important 'first steps'.

## CELEBRATING BUNURU AT MARRADANGUP



In the South West of Australia, there are six seasons in the Noongar year. *Birak*, *Bunuru*, *Djeran*, *Makuru*, *Djilba* and *Kambarang* describe the yearly cycle of weather patterns and the response of native flora and fauna to variations more subtly than the four European seasons.

Bunuru is the hottest time of the year - with little to no rain - and corresponds loosely with February and March.

There was enormous interest in a Bunuru River Walk held at Marradangup (Alfred Cove), with over sixty people attending. Co-hosted by Perth NRM and SERAG, the event was one of a series of events organised by Perth NRM and supported by a State NRM Community Stewardship Grant to celebrate the six seasons.

Wadjuk Noongar Elder Dr Noel Nannup welcomed participants and spoke at length of the deep spiritual relationship between Aboriginal people and the land, the importance of Marradangup, and traditional activities associated with the season of Bunuru.

Dr Nannup then guided the group on an exploration of the natural beauty of the area, with scopes and binoculars assisting people gain a close view of the wonderful diversity of birdlife using the Cove's expanse of coastal saltmarsh, sandbars and mudflats that morning.

It was an inspiring and thoroughly enjoyable way to celebrate the end of Bunuru and to welcome Djeran.





# GREY TEAL SPEND BUNURU AT ESTUARY QUIET SPOTS

The Grey Teal (*Anas gracilis*) is one of the smaller Australian ducks.

A strong flier and highly nomadic, it covers vast distances to find suitable habitat. This year, during Bunuru many dozens of Grey Teal sought refuge from drying inland wetlands in the quiet protected lagoons and margins of Alfred Cove and Pelican Point.

Grey Teals feed in small to large flocks. They are normally nocturnal feeders but are frequently seen foraging at dawn and dusk. Food consists of a variety of types and includes dry land plants, aquatic plants, seeds, crustaceans, and insects and their larvae. The bulk of their diet is plant material, however.

Pairs may breed when there is available food and waterways are suitable, laying soon after conditions become opportune. Several broods may be raised while conditions remain favourable, but Grey Teal may not breed at all in a year should conditions be unfavourable. Five to nine eggs are incubated by the female, and the male helps in defending the ducklings. Pair-bonds are retained from one season to the next.

The Grey Teal is a beautiful little duck. Male and female are alike in appearance, although the male is slightly larger: mostly grey-brown with pale cheeks, chin and throat; each feather of the body is edged with buff, except on the rump; bright crimson eyes, especially in adult males; a dark grey bill, and dark brown wings, with primary feathers a darker brown. Note the fabulous wedge of colour in flight!



Grey Teal at Pelican Point  
Photographs courtesy T Graham-Taylor

## TREEMENDOUS TUESDAYS



Our *Treemendous Tuesday* volunteers complete an enormous amount of solid conservation work in the two hours allotted to the weekly event at Alfred Cove. These photos show some of the weeding jobs they tackled over summer in the Nature Reserve.

The first shows a volunteer in a sea of fleabane and broad-leaved weeds flourishing along the dual-use pathway behind Atwell House, and the other shows volunteers managing *Typha orientalis*.

The dedicated team also targeted Brazilian pepper, deadly nightshade, pampas grass, kikuyu, giant reed, woody starwort and paspalum at the site.

TT Volunteers at work Photographs courtesy M Matassa

## 'NEW' WEED REMOVED FROM FORESHORE

A weed new to the site has been discovered growing strongly in Alfred Cove Nature Reserve, behind the Atwell House drain.

*Hibiscus diversifolius* is unfortunately another 'garden escapee' and difficult to remove.

It is a tall prickly shrub (even its buds have spines!) growing up to 2m or more. Its leaves have three to five lobes and are rough to the touch. The petals of its attractive flowers are yellow with dark purple centres and are 3-4cm long.

Native to tropical Africa and perhaps eastern Australia, this alien is regrettably now found on mud flats in the Swan River Estuary and on creeks in the Darling Range.

Photographs courtesy C O'Neill





# SEAGRASS RESEARCH IN THE SWAN ESTUARY

Seagrasses are submerged flowering plants found in shallow marine waters. Their vast biodiversity and sensitivity to changes in water conditions make them an important species for study to determine the overall health of coastal ecosystems - and there is substantial evidence that they are declining at a disturbing rate across the globe.

Seagrasses play a fundamental role in the Swan River Estuary ecosystem, providing food, habitat, and nursery areas for numerous vertebrate and invertebrate animals, including fish stocks and internationally important migratory wading birds. They also stabilize the Estuary floor, maintain water quality and absorb carbon dioxide.

On-going monitoring and research to secure their future health is vital.

Currently, Masters student Caitlyn O'Dea, with the Centre for Marine Ecosystems Research at Edith Cowan University, is investigating the combined effects of herbivory (particularly of swans) and temperature increases from climate change on the resilience of seagrass in WA.

You may have seen her 'plots' in various parts of the River.

As part of her current research into seagrass rhizospheres, UWA PhD candidate Belinda Martin is investigating the eutrophication of seagrasses in Alfred Cove.

Data from the Department of Water and Environmental Regulation suggest that the dominant seagrass meadows (*Halophila ovalis*) in the Marine Park at Alfred Cove include some in relatively poor condition, compared with other areas in the Swan River Estuary. Belinda's project will determine the potential for nitrogen enrichment in the area to be a contributing factor to the problem, as well as to macro-algal overgrowth.

Both projects are in collaboration with DBCA and will inform policy and best practice in estuary management. We commend all involved in these important scientific endeavours.



One of Caitlyn's plots *Photograph courtesy C O'Neill*

## CLEAN UP AUSTRALIADAY

A crowd of 36 people gathered at Pelican Point to assist in SERAG's annual Clean Up Australia Day event in March.

The large group was split into five teams which headed off in different directions. In around ninety minutes over 100 kilos of discarded material had been collected.

This year we analysed the litter. Among the piles of plastic, glass, paper, aluminium cans and other rubbish were 625 cigarette butts that had been carelessly dropped. Cigarette butts are not biodegradable.

Litter-counts conducted by Keep Australia Beautiful show cigarette butts to be the most frequently recorded type of litter in Western Australia. It was certainly the case on this occasion.



Some of the participants *Photographs courtesy C O'Neill*

## 'TOAST TO THE COAST' GRANT

Landcare Australia's 'Toast to the Coast' project has enabled SERAG address some breaches in foreshore vegetation in the Alfred Cove Nature Reserve.

Sedges and small numbers of shrubs of the Vasse vegetation complex have been planted in degraded spots, aiding in the protection of the Swan Estuary Marine Park by helping to filter pollutants from water run-off from surrounding areas, and contributing to soft erosion control along the water's edge.

Our aims are to mitigate potential algal blooms and seagrass loss by limiting excess nutrients reaching the River, and to strengthen the capacity of its margin to cope with increasing erosion pressures.

*Photograph courtesy M Matassa*



# YET ANOTHER DOLPHIN DEATH DUE TO ENTANGLEMENT!

We are greatly concerned and saddened by the death of yet another dolphin calf, found tangled in a crab pot in April.

The male calf was found deceased in Claremont Bay with its grieving mother (Moon) trying to carry its entangled body through the water.

The official cause of death was asphyxiation (drowning) due to misadventure (ie getting entangled in a crab pot).

We understand this is the third entanglement incident involving a resident dolphin calf and a crab pot that has come to DBCA's attention over the past twelve months, and it followed rapidly on the deaths of Highnitch and her calf from entanglement in discarded fishing line last August.

A solution must be quickly found to this and similar tragic, unacceptable and avoidable consequences of recreational fishing in the Swan River.



Moon trying to support her entangled calf  
Photograph courtesy DBCA

**SERAG has requested the Government undertake an urgent review of recreational fishing practices in the Swan-Canning and other estuaries, with improved community education and tighter regulations.**

## SUPPORTING BEACH-NESTING BIRDS



Pelican Point is an important site for beach-nesting birds, such as Fairy Tern, Red-capped Plover and Pied Oyster-catcher.

As well as disturbance from beach-walkers and kite-surfers, the threats to beach-nesting birds' survival there include changes to the habitat itself.

Beach-nesting birds need open expanses. Their nests are most often simply a shallow scrape in the sand just above the high-tide mark. Although exposed, their eggs and chicks are both perfectly camouflaged to blend into the sand.

Unfortunately at Pelican Point *Casuarina glauca* and couch grass (*Cynodon dactylon*) had rapidly invaded a depression on the foreshore, once richly covered with low-growing samphire.

The change in habitat made eggs and chicks more vulnerable to predators, such as gulls and ravens, which could keep watch for an unprotected egg or stray chick from above, in the tall stand of trees.

These two weed species have now been removed from the damp-land. As a result, we are seeing the natural recovery of samphire.

Under DBCA licence, samphire with local provenance is also being grown for future planting, to strengthen the resilience of this fragile area of coastal saltmarsh.



UWA@PP volunteers remove *C. glauca*;  
Recovering samphire Photographs courtesy  
Yvonne Ching Ying Fong & C O'Neill

This project received funding from the Western Australian Government's State Natural Resource Management Program.



natural resource  
management program



## FIRE DESTROYS PRECIOUS HABITAT

A fire at Pelican Point has destroyed vital habitat for native fauna, including Grey Fantails, Variegated Fairy-wrens and Mistletoe Birds, as well as Quenda (Southern Brown Bandicoot) - all of which rely on dense plant cover to survive.

In their efforts to control the blaze in a wetland thickly covered with *Typha domingensis*, fire-fighters unfortunately destroyed some acacias, melaleucas and eucalypts planted in 2012/13 as part of a long-term strategy to replace weed with native species.

It could have been much worse - and of course we will restore what has been lost.

Photograph courtesy S Graham-Taylor





# AN ENCOURAGING STORY FROM PELICAN POINT

It has taken a number of years, but we were thrilled to see one of our early seedling plantings burst into flower this year.

*Banksia littoralis*, commonly known as the swamp banksia, swamp oak, pungura and the western swamp banksia, can be found in low-lying, seasonally damp areas, along watercourses. The scientific name 'littoralis' means 'belonging to the sea shore', referring to the coastal woodland habitat of this large, majestic banksia.

*Banksia littoralis* grows as a shrub or tree from 1.5 to 12 meters high. Its trunk is gnarled, covered with a crumbly grey rough bark. Its yellow flower spikes - often partly hidden by foliage - grow up to 200 mm long and contain more than 1000 individual flowers, attracting insectivorous and nectariferous birds and mammals.

We hope that this banksia and other plantings will continue to thrive, adding to the food and other habitat resources available to native wildlife and to the sheer beauty of Pelican Point.

*Photograph courtesy S Graham-Taylor*



## WORLD MIGRATORY BIRD DAY

Each year, World Migratory Bird Day is celebrated on second Saturday in May and October to highlight the need to protect migratory birds and their habitats. The Day draws community attention to the need to care about maintaining healthy bird populations and protecting breeding, non-breeding, and stop over habitats used by migratory birds.

Numerous bird species in the world complete epic journeys annually, to and from their feeding or breeding grounds. They include trans-equatorial wading birds that arrive here in September/October to feed over summer and leave around March for their northern breeding grounds in Siberia - and Bridled Terns that fly down from the seas around the Philippines and Celebes to breed on coastal islands such as Rottnest and Penguin Island.

Research by experts such as Ron Johnstone from the WA Museum has found that, as winter approaches the South West, many land birds leave for the Kimberley, and beyond to Indonesia - birds such as Rainbow Bee-eaters, Sacred Kingfishers, Tree Martins and many Cuckoos. Even birds like Black-faced Cuckoo-shrikes and Magpie-larks travel remarkable distances.

Regrettably such journeys are becoming increasingly hazardous, with habitat loss and degradation now posing *enormous* threats to migratory birds.

This year's theme for World Migratory Bird Day is **Protect Birds: Be the Solution to Plastic Pollution** - putting the spotlight on the negative impact of plastic pollution on migratory birds and their habitats. The number of birds dying from the effects of plastic every year - for example from entanglement and ingestion - is estimated to be well over 1 million.

It is imperative that we, as part of the international community, take urgent action to mitigate unnecessary injuries to and mortality of migratory birds and other wildlife due to plastic pollution.



## AQUINAS & CBC BOYS ASSIST IN BFS331



Aquinas and CBC working in a recovery site in Bush Forever Site 331

*Photographs courtesy C O'Neill*



Over past weeks SERAG has hosted teams of students from Aquinas College and CBC Fremantle for restoration work in Bush Forever Site 331.

Through CVA's *Earth Assist* program, Aquinas boys began by ridding a recovery area near Troy Park of a massive outbreak of fleabane, in preparation for winter plantings. Some weeks later CBC students - as part of community service - planted understorey shrubs and ground covers to complement existing native vegetation and improve habitat function.



# NATIONAL EUCALYPT DAY

Held annually on 23 March, National Eucalypt Day aims to raise community awareness of eucalypts and celebrate the important place that they hold in the hearts and lives of Australians.

This year National Eucalypt Day fell on the same day as *Saturday Morning at the Cove*, so after a couple of hours of general bushcare the team celebrated by planting a small tuart (*Eucalyptus gomphocephala*).

Tuart forest occurs only in the Southwest Botanical Province of Western Australia. A predominantly coastal tree, it occurs in a narrow belt along the coast, mainly on dune formations - particularly the Spearwood and Quindalup dunes - but also along rivers and wetland fringes.

It is estimated that prior to European settlement there were more than 111,600 hectares of tuart woodland and forest. Because there is so little left, in 2016 it was nominated for listing as a *threatened ecological community*.



Photograph courtesy N Peters

## CURTIN VOLUNTEERS: CV!



Twelve student volunteers from Curtin University have joined SERAG fortnightly on a restoration project along the Attadale foreshore. The three-year project is supported by the Department of Biodiversity, Conservation and Attractions' *Community Rivercare Program*.

Tasks have reflected the seasonal changes and various challenges on that part of the A-Class Nature Reserve, and have included weed-management, planting and erosion control.

The site is exposed to the elements, with little vegetation to stabilize embankments, supply corridor habitat or provide canopy to lessen the forces of wind and sun. The soil is water-repellant, much is composed of dredging spoil and it has been heavily impacted by running grasses and other weeds.

Great care has been taken to maximize the success-rate of our plantings. Indeed, we are using one particular area as a 'trial' plot to inform the restoration of other equally difficult spots. After weeds were removed, Bentonite was spread, matting laid, and seedlings deeply planted in 'dishes' to improve water retention, then carefully watered-in with a seaweed solution to promote growth.

We hope the plantings will reach a maturity that can replace the ecological functions currently provided by a stand of *Casuarina glauca*, allowing for this species' eventual removal.



Erosion mitigation & Planting  
Photographs courtesy C O'Neill

## SALP 19 PROJECT WELL UNDERWAY

SERAG has been fortunate to receive a grant through the Swan Alcoa Landcare Program for weed-management - and their replacement with indigenous species - at Pelican Point.

The Grant will enable our continued focus on bulbous and woody weeds, of which there are plenty!

However, in our most recent event with UWA@PP volunteers we concentrated on removing Pigface (*Carpobrotus edulis*).

Identified as a priority weed in our Management Plan for the site, Pigface is a strong, spreading, succulent perennial herb capable of smothering native flora, suppressing regeneration and outcompeting and/or hybridising with native *Carpobrotus* species.



Photographs courtesy Yvonne Ching Ying Fong

# LITTLE BLACK & LITTLE PIED CORMORANTS



Little Black and Little Pied Cormorants resting on sandbars in the Marine Park *Photographs courtesy C O'Neill & T Graham-Taylor*

Some of the most spectacular sights to be seen in the Estuary involve Little Black and/or Little Pied Cormorants.

Over summer there have been hundreds - possibly thousands - of Little Blacks seen flying close to the surface of the Swan River, passing in long low lines or v-shaped formations that seem to last forever; or Little Pies feeding in a commotion on schools of fish, or resting on sandbars or sheltered River beaches.

As their feathers are not waterproof they are regularly seen perched on jetties or pylons with their wings outstretched to dry after fishing, while at night they may be found roosting in trees over-hanging water in quiet, protected places.

## INTERNATIONAL DAY OF ACTION FOR RIVERS

The International Day of Action for Rivers falls on March 14<sup>th</sup> each year and the focus for this year's Day was to celebrate the role of women in protecting and managing our rivers.

In support of the initiative, SERAG decided to acknowledge and formally thank two women as outstanding representatives of the many people deeply involved in the care of the Swan Canning River System.

Through their different but complementary disciplines, Historian Dr Sue Graham-Taylor AM and DBCA Rivers and Estuaries Principal Scientist Dr Kerry Trayler have contributed enormously and over many years to the knowledge, understandings and values imperative to maintaining river health. Both are positive and highly-regarded role-models in our community.

River systems in Australia are under great pressure, including from over-exploitation, climate change and poor planning decisions over time. Their health - and the wellbeing of the communities that depend on them - requires continued care and commitment from not only leaders like Dr Graham-Taylor and Dr Trayler, but from us all.

We commend Dr Graham-Taylor and Dr Trayler - and all others doing their best to conserve and protect rivers.



### FOR YOUR JUNE CALENDAR

- TREEmendous Tuesdays: Alfred Cove 7.00am - 9.00am
- 04 (Tues) Bushcare Alfred Cove 8.30am - 2.30pm
- 05 (Wed) *World Environment Day*
- 08 (Sat) UWA@PP 8.30am - 10.30am
- 15 (Sat) *Printmakers* at Alfred Cove 9.00am
- 22 Saturday Morning at the Cove 8.00am - 10.00am

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

In the Noongar seasonal calendar  
*Makuru*  
is the cold and wet time of the year.



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