.... about the Estuary



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Spring 2021

WINTER AT THE COVE

It was difficult to decide just where to look next during a visit to Alfred Cove on a cold clear winter's afternoon!



A spoonbill is mirrored in the stillness of a coastal saltmarsh lagoon Photograph courtesy C O'Neill

There were birds aplenty and wonderful sights to be seen in the air, on the water, among the saltmarsh flats and lagoons and in the surrounding woodlands: swans preening on the narrow beach; four or five species of ducks in and about the water; waders including egrets, herons and stilts feeding in muddy shallows; the family of ospreys watching over their nest; willy wagtails darting after insects in the grass, and a flock of black-cockatoos wheeling overhead.

The quick snap above shows a spoonbill feeding in the beauty of reddening samphire.

It was taken from a site bordering the Nature Reserve at Point Waylen, where the Friends of Melville Bird Sanctuary hope a viewing platform can be erected unobtrusively in the landscape, facilitating visitors' enjoyment of superb vistas like this, without disturbing or destroying the communities of fauna and flora that make the place so very special.

'ORANGE WAS THE NEW BLACK'

Winter rains enlivened the melaleuca woodlands at Alfred Cove, and in June, fallen branches among the understorey were festooned with fabulous fungi, in various shades of orange.

Fungi are part of our rich biodiversity and underpin the long-term health and resilience of bushland. They play many important roles in ecosystem functioning, including breaking down forest litter and debris to provide nutrients for plants.

Fungi are neither plants nor animals, and belong to their own separate kingdom.

There are at least ten times as many fungi as plants in Australia, the vast majority being microfungi that cannot be seen with the naked eye. It is estimated that there are about 10,000 species of macrofungi - but unfortunately as yet, few have been formally described and named.











NOW ABLAZE WITH WATTLE

Heralding Spring, our bushland is once again ablaze in the yellows of various Acacia, commonly known as Wattle.

Among others, Acacia pulchella, A. cyclops and A. saligna are bursting into flower in Bush Forever sites 331 and 402.

There are some 1350 species of Acacia found throughout the world and close to 1000 of these are found in Australia.

Wattle seeds may form an important part of Aboriginal diets. Over 30 species are utilised across the continent, including *A. cyclops* (Noongar: Woolya / Wilyawa). High in protein, seeds are usually ground into flour or paste.

Wattle has become a cherished icon of Australia: Australia's national floral emblem is *Acacia pycnantha* (Golden Wattle) and national teams wear 'the green and gold'.

'Wattle Day' is celebrated on 1 September each year.



A sprig of A. pulchella; A Little Sprig of Wattle by A H Scott, serving with the 4th Battery of the Australian Field Artillery. The poem was first published in 1916 in C E W Bean's 'The ANZAC Book', which featured creative works by soldiers serving on the Gallipoli Peninsula.

DISTURBANCE SURVEY: SUMMARY OF RESULTS

During the hot and windy weeks between 9 January and 24 February 2021, SERAG participated in a survey to ascertain the impact of recreational activities on the birdlife in the Marine Park at Pelican Point.

The survey was coordinated by the Conservation Council of Western Australia, supported by BirdLife WA. Below is a summary of its findings.

The total number of individual surveys totalled 44. The number of surveys where human recreational activity was reported = 38 (86% of surveys). The number of surveys where disturbance of birds due to human activity was reported = 27 (61% of surveys). The total number of disturbance events reported = 61.

Shorebirds and Fairy Terns were consistently reported present at the site – shorebirds for 84% of surveys and Fairy Terns for 77% of surveys. The most frequently reported shorebirds included Pied Stilts, Australian Pied Oystercatchers and Red-capped Plovers.

Joggers, walkers and people fishing (which generally occurred near to the shoreline) caused the most disturbance to water birds.

Disturbance to waterbirds, including the vulnerable Fairy Tern and resident shorebirds that regularly use Pelican Point, is an ongoing and frequent occurrence, principally due to recreational activities associated with accessing the shoreline such as walking, jogging and fishing. Water based activities where they remain outside the marine reserve markers have less disturbance impact.

IMPERATIVE & POSSIBLE

It seems that the Pied Oystercatcher couple that delighted us all last year have returned to nest in the exact same spot at Pelican Point. Sadly, the threats - both avoidable and unavoidable - to a successful breeding season continue to grow

at the site.

While we can do little directly about the impact of increasingly destructive weather events for example, it is imperative and possible to prevent casual disturbance at this once fully-protected bird sanctuary.

Beach-nesting species relying on Pelican Point include Pied Oystercatchers, Redcapped Plovers and Fairy Terns (vulnerable to extinction).

The site's beaches, dunes and lagoon also support resting and foraging trans-equatorial





One of the Pied Oystercatcher nesting pair & a crowd of local waterbirds resting and drying their wings (until someone walks along the beach)

Photographs courtesy T Graham-Taylor

migratory waders - for which we have international protection obligations - and of course wonderful local water birds, that have already lost the vast bulk of their Estuary habitat to development and recreation.

Allowing casual disturbance at Pelican Point jeopardises all this.

THE EROSION CRISIS

Erosion is a *major* problem along the narrow ribbons of shoreline bordering each of the three areas of Swan Estuary Marine Park.

In the last ten years, for example, it is conservatively estimated around thirteen meters of beach and dune have been lost from the north-eastern margin of the terrestrial area at Pelican Point, threatening the future of the enclosed lagoon.

Booriarup (the place of swampy country) has been highly important to Noongar people for millennia, while its significance to estuary-wide biodiversity and species conservation has been well-understood for many generations. It was classed as a Nature Reserve long before reclassification as Marine Park in 2014. One of three small areas in the Estuary specifically set aside to provide habitat and sanctuary to wildlife (particularly birdlife), it also supports some of the last-remaining coastal saltmarsh (*Threatened Ecological Community*) in the Estuary.

For many decades various constructions such as buildings, bridges, groynes and river-walling - as well as dredging and dumping - have constrained the natural flows and meanderings of the River, significantly altering its hydrology and impacting adversely on remaining lengths of natural embankments, such as at Pelican Point. The erosion problem has been exacerbated by boat-wash and the increasing frequency / intensity of storm events associated with climate change.

RECLAMATION WORK AT CRAWLEY HAS ALTERED BEACH

Owing to the extensive reclamation work that has been carried out at Crawley certain changes in the foreshore have taken place and visitors to the popular river resort, particularly crabbers, prawmers and yachtsmen, ahould observe the following features of the place as they now exist, said the chairman of the State Gardens Board (Mr.

The swimming area is defined by costs for about 200 yards east of the serooms and remains unaltered. From the end of the swimming area to the end of the swimming area to the end of Pelican Point, the wide hallow bank which bred quantities of nuissels and aigae has been reduced to the same width as the swimming area. The bank was cut in two steps, but is tressent rather steen.

Non-swimmers should avoid this section, which is marked by Iron posts and with danger heards at

At the commencement of the area it a small spit, and another has been built near the Sea Scouts headquarters. The object of these is to prevent the scour of the beach with northerly winds, which was causing serious erosion, now apparently arrested.

at each corner, the two nearest Pelican Foint carrying danger boards.

As this is a totally unexpected fulliment of a wish expressed by Mr Connell, when Commissioner of Police some years ago, for a convenient place for the police Isunch, Cygnet, to tox captizes in easterly weather. It is pro-

Crabbers and prawners should be expecially careful of this area, which is roughly 300 feet by 450 feet.

The sandspit and vicinity are reserved as a bird sanctuary. The public are requested not to use this or frighten he birds, and especially to keep dog

The signal tower, from which warnng signals were displayed was washed
wasy last winter. It is hoped if funds
sermit to replace it with a 30ft mast
or the end of the point, when storn
signals will once more he displayed
flags on the big mast refer only to

While the result is a great general improvement in the beach, for this season until the easterly winds east off the grades of the banks, there is possibility of secidents, and parents of children especially should take notice of these alterations.

> Source: Daily News 17 December 1936

We hope a thoroughly-researched, long-term and properly-funded strategy can be implemented over forthcoming months and years to recover and conserve Pelican Point and other important places of natural heritage value.















The eroding NE margin between River and lagoon Photographs courtesy S Graham-Taylor & C O'Neill

MARINE PROTECTION AREAS

The Nature Conservancy is a global environmental organisation working to create a world where people and nature can thrive. Founded in 1951, it has become one of the most highly respected, effective and wide-reaching organisations in the world. Recently it has published some interesting data regarding conservation practices in marine areas.

The Nature Conservancy has studied various levels of protection and their conservation outcomes in marine-protected areas. In what are known as 'fully protected areas', no plants or animals can be taken away or harmed; in 'partially protected areas' some activities (such as fishing) can still happen. It has found that partially protected areas do not help wildlife conservation that much. Research indicates that partially protected areas had no more fish or invertebrates than unprotected areas. Fully protected areas had 30% more fish species and over twice the weight of fish compared with unprotected areas.

Such information is highly relevant to the good-management and conservation goals of the Swan Estuary Marine Park within the greater Swan Canning River Park, and supports SERAG's advocacy for the Marine Park's full protection.

WORLD ENVIRONMENT DAY 2021

On 5 June each year, World Environment Day acknowledges and celebrates positive environmental action. 2021's theme was 'Ecosystem Restoration' and it ushered in the 'United Nations Decade on Ecosystem Restoration'. It is an initiative aimed at preventing, halting and reversing the degradation of ecosystems worldwide.

We celebrated the Day at Pelican Point, with fifteen enthusiastic SERAG and UWA volunteers aiming to strengthen the ecological health and habitat value for wildlife of Bush Forever Site 402.

Foremost in mind were the needs of the site's families of Purple-backed Fairy-wren (*Malurus assimilis*) - tiny birds that require dense, low vegetation cover. Hence, a revegetation plot first planted in 2013, where canopy species had done well, was augmented with additional understorey species, generously donated by Plantrite.









JOHN XXIII STUDENTS

In the week following World Environment Day, SERAG also hosted students from John XXIII College.

The large group spent part of an afternoon at Pelican Point, first weeding then planting native understorey species in yet another rehabilitation section of BFS 402. Well-aged mulch was spread on the exposed area too.







Students from UWA and John XXIII planting understorey species in BFS 402

Photographs courtesy C O'Neill, A Goundrey & T Graham-Taylor

THE IMPORTANCE OF UNDERSTOREY

Re-establishment of understorey vegetation is an important step in the restoration of some bushland ecosystems.

Understorey vegetation includes small trees, shrubs, herbs, grasses, mosses and lichens that occupy the vegetation layers below the canopy of taller trees.

Understorey vegetation is vitally important to the stability of the soil surface. The presence of an understorey, along with leaf debris, softens the impact of rainfall, reduces runoff by acting as a physical barrier to surface water and contributes to soil porosity. Understorey plants are a source of organic material that sustains living organisms in the soil, ensuring nutrients are returned to the soil.

As well as conserving and protecting the essential resources of soil and water, this all-important layer supplies habitat necessities of food and shelter to numerous beneficial insects, along with many frogs, reptiles, birds and small mammals.

Small birds such as fairy-wrens build their nests in dense, prickly shrubs for protection, and when the young leave the nest, they can hide in thick understorey vegetation.

Spyridium globulosum, known as basket bush, has been among the native species recently planted in recovery sites at Pelican Point. It features glossy green leaves and bunches of heavily perfumed white flowers in winter and spring. Its common name is taken from the Greek 'spyridion', meaning 'little basket' - referring to the circle of bracts surrounding each flower head.

Kennedia prostrata (running postman), Patersonia occidentalis, Conostylis aculeata and Banksia littoralis were also included.





Spyridium globulosum and Kennedia prostrata in BFS 402 Photographs courtesy C O'Neill

The biodiversity of much of our bushland suffers greatly from a cleared or degraded understorey.

Among the main contributors to its disappearance are the 'tidying-up' of the understorey to create a park-like setting of mown grass and scattered larger trees, weed invasion and inappropriate fire regimes.

DOTTEREL VISITORS TO PELICAN POINT

Normally Black-fronted Dotterels (*Elseyornis melanops*) are found near freshwater and are not often seen on the coast. It was very unusual to see one in mid-June on the Estuary at Pelican Point.

Then, even more unusually, on their weekly Tuesday evening count in mid-August the Pelican Point Group spied an Inland Dotterel (*Peltohyas australis*) - an endemic shorebird of the arid Australian interior!





Black-fronted Dotterel & Inland Dotterel at Pelican Point Photographs courtesy M Altman & T Graham-Taylor

PAMPAS GRASS PROBLEM

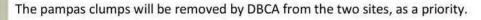
Weeds are a major problem in Australia, both in agricultural/grazing areas and natural bushlands. Currently the list of alien invasive plants exceeds 2700 species, with around 20 new weeds added each year.

The majority of Australia's environmental weeds have been introduced deliberately - as fodder, for cropping, or as garden ornamentals - then have 'escaped' to wreak havoc on various water- and land-based ecosystems.

Pampas grass (Cortaderia selloana) is one such weed. Originating in Uruguay, it was introduced into Australia in the late

19th century, becoming popular as a garden ornamental. It was also used for stock fodder and as a windbreak.

Pampas grass is a perennial that grows in large clumps to 1.5m wide and 4m high. Each of its many plumes holds up to 100,000 seeds, which are disbursed by wind over great distances. Until the early 1990s it was believed only female plants existed in Western Australia, thus limiting its reproduction capacity. However bisexual plants were soon discovered throughout the south west, where it has become a serious environmental weed. It has invaded sunny, swampy sites from Perth to Albany - unfortunately including damp areas at Pelican Point and Alfred Cove.





Pampas at Pelican Point Photograph courtesy C O'Neill

CARING FOR THE COVE

Improvements in vegetation condition along the margin of the Swan Estuary Marine Park at Alfred Cove have not only strengthened habitat values for native flora and fauna, including the diversity of birdlife, but thereby also enhanced the natural beauty of the location - returning it from a 'weed-infested heavily-littered eyesore' to a treasured place, where nature can flourish and the community enjoy its loveliness.

Although the Nature Reserve still suffers periodically from vandalism (as exampled in the poisoned *Casuarina obesa* tree below) and invasive weeds such as *Carex divisa* remain a major threat, its recovery so far has seen the reappearance of species once lost to all or part of the site and enabled people to better-visualise its potential to be returned more fully to a place of outstanding natural and cultural heritage value.



Saturday morning on Attadale foreshore Photographs courtesy N Peters







Members of Melville City Rotaract have been among other community groups contributing time and energy to our projects. Regularly participating in *Saturday Morning at the Cove*, their efforts have been acknowledged recently - the club receiving Rotaract's 'Most Outstanding Community Service Activity Award' for their involvement. Congratulations!

THE DETRITUS OF OLD TIPS

Much of the foreshore of the Marine Park at Alfred Cove was previously used as rubbish tips, with dumps sited along Tompkins Park, Troy Park and Attadale foreshore.

Hence, often in the bags of litter collected during our planting and weeding events along the foreshore is the detritus of past generations - such as old partially decomposed socks, plastic hair brushes, car tyres, toothpaste tubes and beer bottles from the 1950s and '60s, that have been uncovered by storm events or simply steadily made their way to the surface.

On an occasion following very high tides, the bravest of the *Tree*mendous Tuesday Team headed down a steep embankment into the River, wading almost up to her knees to retrieve a remnant of the former land-use

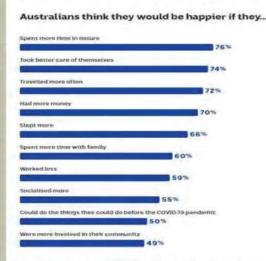
of Tompkins Park.

Volunteer retrieves old car tyre from Marine Park Photograph courtesy M Matassa



element.

COMMUNITY OPINION



Values survey summary

Melville element. SYRINX ASPECT Studios : Porter



Recent surveys of attitudes and values have once again revealed the importance of natural areas to the community.

The 'Australia Talks' online tool https://australiatalks.abc.net.au/ shows that people think they would be happier if they spent more time in nature.

A survey conducted by **element** as part of the City of Melville's current Master Planning process for the Attadale, Alfred Cove and Applecross (part) foreshores, reveals a similar outcome.

COMMUNITY WALK-SHOP,

The Urban Bushland Council (UBC) is the peak community organisation for urban bushland recognition and protection, and is an association of more than 70 community conservation groups concerned about urban bushland.

A focus for its current community engagement and support program is the concept of 'why your patch matters'. A series of presentations and workshops on relevant topics and site visits have been arranged for the course of the year, including a tour of Alfred Cove in June.

Participants from all over the metropolitan area were guided on a walk through the section of Alfred Cove from Haig Road to the little viewing platform just past Stoneham Road. Along the way, SERAG Chairperson Margaret Matassa outlined the principal threats and challenges impacting on the site, some of the group's successes and hopes for the future there, and the natural values that make 'the patch' worth the dedication and hard work of our volunteers.









Welcomed by a local resident; discussing the Marine Park shallows; one of a couple emerging from the tall grass; admiring mistletoe

Photographs courtesy M Owen

'MASKING UP' FOR WASR

Western Australian Seabird Rescue (WASR) is a network of seabird and waterbird rescuers based in coastal southwestern Australia.

Many will know of WASR's superb efforts to support birds in distress in the Swan River Estuary, but the work of these dedicated volunteers extends from the wider Perth region to Shoalwater, Mandurah and Albany.

Every year they rescue and rehabilitate hundreds of waterbirds such as herons, swans and ducks, and a huge variety of seabirds including penguins, shearwaters and albatrosses.



Among the masks & the winner Photographs courtesy R Napier



Most coastal seabirds they treat (eg ospreys, terns pelicans, cormorants) are entangled in fishing line and hooks.

SERAG was pleased to support WASR's recent Quiz Night fundraiser - an enjoyable masked event with a prize awarded for the best mask. The winner - 'Pied Oystercatcher Peter' - later confided: After I made the mask I almost didn't bring it, for fear of embarrassment. But I discovered when you're standing on stage being laughed at by a few hundred people a mask is good thing to have on!

YOONDOORDO VISITS PRIMARY SCHOOL

In July Margaret Matassa and Yoondoordo visited a class at Our Lady of Fatima Primary School to promote interest in ANSTO's National Shorebird Competition.

Open Australia-wide to students from Year 3 to 6, the annual competition draws attention to Australia's wetlands and coastal areas for their great natural beauty and importance in supporting diverse animal and plant life.

Margaret and Yoondoordo proved thoroughly engaging, providing a variety of activities designed to stimulate the children's curiosity to know more about the birds of the Estuary and the exceptional habitat provided in nearby Alfred Cove.

On World Migratory Bird Day in October, SERAG will present awards to students who best highlighted the contribution of the Swan River Estuary to sustaining biodiversity.



Yoondoordo & some happy students

Photograph courtesy M Matassa

MILYU'S OSPREY

Volunteers who meet each month at Milyu in South Perth to collect litter blown on to and washed up at the site, also keep an eye out for the local ospreys.

We regularly see them fishing in the shallows or eating their catch on the beach.

Due to a lack of suitable tall mature trees in the vicinity, the pair has built their nest on a nearby telecommunications tower. Both male and female have been at work on the nest since May, carefully adding sticks and soft material.

While we are concerned about possible long-term impacts of such direct microwave emissions on parents and offspring, we hope their nesting is successful - that chicks are born strong and healthy, and find the Estuary habitat sufficiently safe and abundant to support generations to come.



Sticks are just noticeable on left Photograph courtesy C O'Neill

CV! PLANTING MORNING

Choking kikuyu has been removed by the City of Melville from under the canopy of a remnant stand of *Melaleuca raphiophylla* and *Eucalyptus rudis* in Bush Forever Site 331, to reduce the stress on and improve the health of these beautiful old trees.

On a very wet day, with the assistance of students from Curtin University, SERAG began to revegetate the swale with native sedges (*Baumea juncea*) and low-growing plants, (such as *Rhagodia baccata* and *Lobelia anceps*). They will reduce compaction and improve moisture penetration into the soil
Planting begins as well as provide habitat for native critters.

Photograph courtesy M Matassa



FROGMOUTH FEATHERS

Birdwatchers have been tantalized with separate findings of a full feather and part of one in Bush Forever Site 402.

Although there isn't an official record of Tawny Frogmouths at Pelican Point (and we have looked unsuccessfully to find them) the collected evidence indicates they are present.

Tawny Frogmouths (*Podargus strigoides*) are nocturnal birds, active at night and at rest during the day. To facilitate their way of life, they have become highly proficient in pretence.

Camouflage and disguise are achieved through a combination of their having soft, mottled, bark-coloured feathers and an amazing capacity to adjust their posture - narrowing their eyelids to obscure large yellow eyes, and stretching and flattening their bodies. Additionally, they are able to remain absolutely quiet and still for long periods of time.

Generally roosting low down on tree branches during the day, often abutting the tree's trunk, Tawny Frogmouths can be easily mistaken for a dead branch, as illustrated by the beautiful pair photographed





Part of a feather found at Pelican Point; Tawny Frogmouth pair resting in Hollywood Reserve Photographs courtesy C O'Neill & M Owen

recently in Hollywood Reserve (relatively close to Pelican Point). One has to look hard to see one bird, let alone two!

Their diet principally comprises a delicious variety of nocturnal insects, snails, slugs and worms.

Tawny Frogmouths form lifelong partnerships. Breeding occurs from August to December, generally resulting in one brood of one or two chicks. Both parents share nest-building and chick-rearing responsibilities. The forks of old native trees offer the most suitable nesting sites - places where twigs and leaves can be accumulated to form nests - again confirming the importance of preserving mature bushlands in our community.

DECADE OF ECOSYSTEM RESTORATION

As mentioned earlier, 2021 has ushered in the 'United Nations Decade on Ecosystem Restoration' - an initiative aimed at preventing, halting and reversing the degradation of ecosystems worldwide.

There is much to be done in ecosystem restoration in and around the Swan Estuary Marine Park: in protecting and recovering the ecological health of what remains of our natural heritage; in rectifying past land- and water-use mistakes, and in preparing for and mitigating growing pressures associated with climate change.

The SERAG Committee has begun identifying goals we hope to achieve, bit by bit, by the end of the decade. These will be shared and discussed at our Annual General Meeting in October. We hope you will be able to attend.

Of course, the capacity of SERAG to meet *any* target is fully dependent on the practical and/or moral support provided by our members and friends. *Many* thanks to all who have chosen to be part of SERAG - your continued encouragement and involvement over forthcoming years will be vital to our success and greatly appreciated.

FOR YOUR SEPTEMBER CALENDAR

- National Biodiversity Month
- TREEmendous Tuesdays Bushcare at Alfred Cove 7.00am 9.00am
- 01 Wattle Day
- 02 (Thur) Bushcare with CV! 9.00am 12.00noon
- 04 (Sat) UWA@PP Bushcare 8.30am 10.30am
- 07 National Threatened Species Day
- 10 (Fri) Planting Morning at Milyu with DBCA 9.00am
- 13 Monthly Monday at Milyu Litter Collection 7.30am 9.30am
- 13 (Mon) Bird-count at Alfred Cove
- 25 Saturday Morning at the Cove Bushcare 8.00am 10.00am
- 26 World Rivers Day

Please contact SERAG for further information or to register your interest in any event.

SERAG Annual General Meeting 6.00pm Wednesday 20 October 2021



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The Swan Estuary Reserves Action Group acknowledges the Whadjuk Noongar people as the Traditional Custodians of the land and waters for which we care, and pays respect to their Elders past and present.