

# protected

Magazine of National Parks Association of Queensland

## conservation vs visitation

conservation versus visitation  
new ways of experiencing nature  
moreton bay marine park  
moreton island national park  
dugong  
the national park experience  
ranger of the month

Issue 9 June - July 2016



Connect and Protect



**Connect and Protect**

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## Images

Cover - Moreton Bay Marine Park (K Leckie).  
Strip p2 - Mountain White gum bark (*Eucalyptus dalympleana* subsp. *heptantha*). (Paul Donatiu).

# FROM THE PRESIDENT



Michelle Prior, NPAQ President

**Welcome** to the June/July edition of *Protected*.

Conservation appears to be firmly back on the agenda in Queensland. The protected area estate has expanded, the state budget includes allocation for national parks and other aspects of the environment, nature conservation has been reinstated as the primary goal of national park management, mining is set to finish on North Stradbroke Island (Minjerribah) by 2019, some actions are being undertaken to stem the destruction to the Great Barrier Reef and vegetation management is back on the agenda.

NPAQ acknowledges the commitment to the environment from the Palaszczuk government, and their efforts to honour election commitments.

## Reinstating integrity of national parks

May saw the reinstatement of nature conservation as the primary goal of national park management, thereby restoring the integrity of Queensland's protected area estate. It took a lot to convince the opposition that the purpose of the Nature Conservation Act should again be about conserving nature. It was a battle well fought and deserving of the outcome. This reform reversed the changes made in 2013 and 2014 which broadened and downgraded the protected area concept, by placing competing and environmentally damaging interests on a par with nature conservation in national parks.

## Protecting North Stradbroke Island's remarkable cultural and natural heritage

Also in May, the Queensland Parliament passed legislation to phase out sand mining on Minjerribah / North Stradbroke Island by 2019. This decision is the best outcome for the Quandamooka people, the environment and the future sustainability of the island. Mined since 1949, the time is right to say 'enough'

is enough'. The remaining wonderful natural heritage of the second largest sand island in the world can now be protected from the irreparable effects of sandmining.

## Planning Bills

A suite of Planning Bills were passed in May, which will come into effect in mid-2017. Whilst being clearly better for public participation, transparency and accountability, they maintain the status quo for environmental protection. This is unfortunate, as the current planning system is failing protect nature – as seen by the impact on koalas by development in SEQ. On the topic of koalas, an expert panel has been established for the identification of ways to afford better protection.

## Great Barrier Reef

Whilst not changing its stance on coal mining or port construction, following reports that highlighted the massive extent of coral bleaching on the reef, the Queensland Government committed \$3 million to the Great Barrier Reef Foundation over three to boost the resilience of the reef (if the private sector produced the same amount on a dollar-for-dollar basis); and also purchased a \$7 million cattle station on the Cape in a bid to stem sediment runoff.

## Queensland State Budget

The Queensland Budget reflects recent change in sentiment towards protected areas. By committing funds to the expansion and good management of national parks, the government sent a strong signal regarding the importance of Queensland natural and cultural heritage.

National parks received a funding boost in the budget. Following on from the recent growth in the protected area estate, funding for an additional \$5 million for acquisition has been announced. Management of protected areas will also receive funding, with \$35.9 million being invested over four

years to establish and manage these lands.

Over the next four years 31 new park ranger roles will be established, which will begin to redress the cuts to ranger numbers under the Newman-Nichols government.

Similarly, the provision of support for an implementation team of 10 officers (by 2020) on Cape York Peninsula is big win for the region.

In a similar vein, an additional \$2.2 million has been committed to advance the World Heritage Nominations for Cape York and Great Sandy Region in consultation with Traditional Owners.

Other key areas receiving support include protecting koalas, addressing the impacts of climate change, protecting the Great Barrier Reef and expanding national parks. Overall the operating budget for the Department of Environment and Heritage Protection has increased by \$23.5 million.

## Growth of the Protected Area Estate

Further areas have been added to national and regional parks in Queensland – with the total protected area estate now at 13,704,240 ha (7.9% of the state).

Declarations at the end of June follow the major boost to the protected area estate in late 2015, which saw three new national parks and six new regional parks, and the extension of existing national parks – a total of 297,587.30780 ha. These properties were purchased by the Bligh Government under the National Reserve System with joint Federal (2/3) and State government (1/3) funding for nearly \$27 million, but remained un-gazetted under the Newman Government. These properties are located in regions with few national parks and provide habitat for endangered species, recently identified plant species and amazing landscapes.

# CONSERVATION VERSUS

Kirsty Leckie, Conservation Principal

National parks were established in Queensland to protect the states natural heritage. This ethos continues to be at the heart of why protected area estates are established and managed around the world. For the past several decades in Australia, new areas for national parks have been identified and gazetted affording protection to threatened species and ecosystems. As the protected area estate in Queensland grows, so do the pressures and threats putting these unique areas at risk. In parallel, visitors in some parks are increasing, placing further pressure on park staff and infrastructure.

This article explores why national parks are protected – for conservation or for visitors to enjoy?

## **Why were protected areas established?**

Globally protected areas were established for a wide array of reasons. Australia is no exception. NSW's Royal National Park, gazetted in 1879 was

originally established to provide a place to picnic and see wildlife from around the world. Belair National Park (1891) in South Australia was established for recreation and included a tennis court. Queensland's first national park, Barron Falls, was set aside in 1900. The first national park declared under Queensland's innovative State Forests and National Park Act 1906 - Witches Falls (now part of Tamborine National Park) was established to protect the area from clearing.

As the environmental movement gained momentum during the 1960s and 70s, conservation issues began to come to the fore. New parks were established to build Queensland's protected area estate. As the estate grew, so did questions regarding the purpose of establishing national parks. Does conserving the native species and ecosystems in these areas equate to preserving wilderness with no interaction with humans? The debate continues today as tourism thrives around many protected areas.

In a controversial paper published in Nature (2005) Hugh Possingham suggested 'there were too many parks in Australia of little value' and that research needed to be done to understand if national parks are the best way of protecting an area.

## **Conservation in national parks – conflicts with visitors**

Since the inception of the first national parks, there have been competing land uses. From clearing of vegetation to introduction of pest species, managing national parks for conservation is difficult. National Parks in Queensland cover vast tracts of the state, often in remote areas. Maintenance and upkeep on infrastructure within the parks is ongoing and costly.

In parallel, infrastructure to support tourism (camping, day trips etc) is expensive and also requires ongoing maintenance.

## **Impacts of visitors on protected areas**

The impacts to national parks from visitors varies depending on the sensitivity of the environment, the nature of the tourism activity and the behaviour of the individuals. Litter, pollution from detergents, fire, noise, artificial light, can all take a toll on protected areas. Catihog-Sinha (2008) goes further noting that if the relationship between tourism and protected areas is not managed properly, both the tourism and biodiversity can suffer.

In New South Wales, researchers studied the impact visitation had on abundance and diversity of bird populations (Densmore and French 2005). The results were mixed. Whilst a greater density of birds was observed in all of the recreation areas





# S VISITATION

in the study, a lower species richness was also observed.

In Western Australia, researchers found that even at low use levels (informal campsites etc), recreation lead to changes in resource conditions in natural areas (Smith and Newsome 2002). Catibog-Sinha, C. (2008) went on further adding that species richness or biodiversity in protected areas attracts people (visitors). Siikamakj et al (2015) found that the most visited sites were found to overlap with areas of high habitat and species richness. This is likely explained by considering that visitors find a heterogeneous and diverse habitat more attractive and interesting than a monotonous one.

Visitors can however have a positive impact connecting protected areas with the local community in a truly sustainable way. In the United States, Zion National Park built a shuttle system to transport visitors into the park to ease the demand for parking within the park's boundaries. In the process of developing a transport

plan (the shuttle system, signage and corridors), the parks service also built a strong relationship with the local community (McCool and Spenceley, 2014).

### Monitoring for successful management

In trying to understand the impacts of visitation on national parks, park managers need to move beyond anecdotal and observational information. Gaining access to environmental, social and economic information can facilitate a better understanding of levels and patterns of visitation. In parallel natural and physical science data sets can also be analysed.

Monitoring strategies can assist park managers in developing a proactive approach and mitigating measures to address any adverse impacts identified. Catibog-Sinha (2008) highlight the importance of well-designed monitoring frameworks to ensure conflicts between recreational impacts and biodiversity conservation are resolved early on.

### Conclusion

As the protected area estate grows in Queensland, perhaps it is time to look for innovative ways of finding and funding a balance between visitation and conservation. As Smith and Newsome (2002) highlight, managers of protected areas are now confronted with a complex challenge. Contemporary management of protected areas entails providing both protection of natural values and desirable recreation experiences for visitors.

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### Images

Undara Caves, Source: NPAQ

Springbrook National Park, Twin Falls Circuit, Source: Kirsty Leckie



# NEW WAYS OF EXPERIENCE

Kirsty Leckie, Conservation Principal

The development and evolution of smartphones symbolises how quickly society can embrace change on the technological front. The smartphone, now ubiquitous in everyday life provides users with a quick and easy means to document everyday life, access information and navigate the world. Photographing a trip to a beautiful rainforest no longer necessitates lugging heavy camera equipment. Nowadays it is as simple as packing a smartphone, which will also act as a Global Positioning System (GPS), weather tracker and of course provide mobile communications.

The growth of technology and gadgets for the outdoors is so rapid, it can be a little overwhelming to know where to start and what is useful. There is also the question of the negative connotations associated with technology as part of the national parks experience. With visitors to national parks beginning to demand Wi-Fi and information moving online, it is a good time to examine new ways of experiencing nature.

## The evolution of digital cameras

The development and evolution of digital cameras has been rapid. Coupled with advances in processing technology, modern digital cameras are now powerful devices. The doubling of computer processing speed every 18 months (known as Moore's Law) has added further momentum.

Processing film has rapidly become a thing of the past, whilst memory cards have increased exponentially in size (storage capability). An amateur photographer can now take thousands of photos without lugging about dozens of film canisters. Editing can be done on the go via the ability to

check images instantly rather than waiting until film has been processed. The advent of smartphones with built-in cameras has taken the evolution of cameras even further.

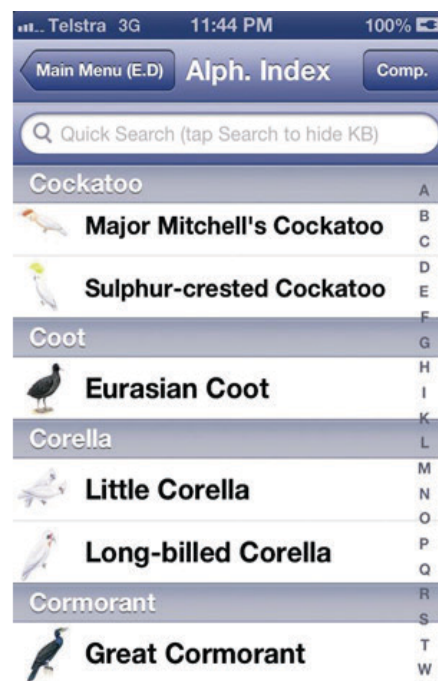
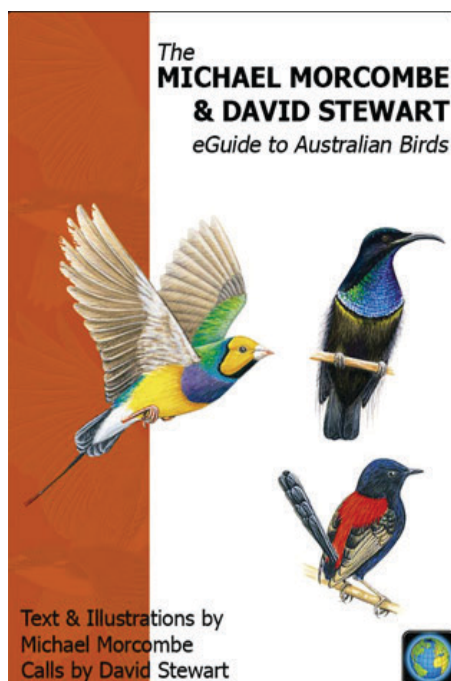
Images can be shared online, via email or stored in 'cloud'.

## Social media (connecting with communities and experts)

Social media platforms have flourished alongside smartphones and digital photography. Experiences can now be shared, linked and promoted in an instant. From Facebook to Instagram, social media connects users and allows images and content to be shared widely. For nature and wildlife, documenting a field trip or bushwalk is now easily managed via a smartphone. Users can now reach universities, research organisations, not-for-profits and government agencies via social media. These platforms are more open and informal, and are therefore more approachable.

Struggling with identification of an orchid? Tweet, Instagram or share an image to experts around the world quickly and easily. Found a beautiful place and want to share with your friends? Easy when you can capture an image and then distribute to your network via Facebook, Twitter or Instagram.

This is only the beginning. Savvy users can source funding, connect with like-minded people and promote campaigns all via free platforms with worldwide coverage. Organisations are now part of the fabric of social media, providing users and customers with ready access to engage and interact. This responsiveness threatens to supersede websites as a go-to place for information. Whilst website tend to be static, social media is fluid responding to the ebb and flow of sentiment and interest in the community.





# ENCING NATURE

## Applications for everything wild – engaging children and young adults with nature

Imagine being able to take the information and photographs from hundreds of large heavy field guides for native plants and wildlife on your next bushwalk. All of that information right at your fingertips to help you identify and learn more about the environment around you. In parallel, you can check the weather, keep an eye on where you are going and share your favourite experiences with friends and family. A smartphone can now provide a gateway to all of this and more. Welcome to the world of apps!

One of the first nature apps in Australia was the development and release of the *eGuide to Birds of Australia* (Michael Morcombe and David Stewart). Twitchers no longer need to carry around an identification guide, when a smart phone can do the trick. Runkowski (2015) describes wildlife apps as being better than books as the app often includes filtering systems, step-by-step identifications and provides the user with an easier way to name and learn about wildlife.

There are now many great apps available on both Android and Apple operating systems. The *Field Guide apps to Australian Fauna* is a joint project from the Australian Government and Museum Victoria. Users can access beautiful images, descriptions, conservation status and audio clips for each species. Regionally focused apps provide information about a specific area or bioregion. The *Coastal Life of South East Queensland* is a digital companion to the *Wild Guide to Moreton Bay*. The app provides users with access to information focused on species found in South

East Queensland making keying out a species just that little bit easier. Apps also provide valuable tools for citizen science projects.

### Citizen science

Citizen science is research conducted in whole or in part by amateur or non-professional scientists. Also known as civic science or volunteer monitoring, citizen science is public participation in scientific research.

Technology like smartphones, apps and digital photography offer a relatively inexpensive toolkit to undertake research. One example is monitoring populations of wildlife. Utilising online field guides, and identification apps enables citizen science projects to gain further rigour in data collection. Jepson and Ladle (2015) undertook research in nature based apps and found 33 citizen science apps.

### The downside of technology – what about going off the grid?

Like all new developments, these new applications of technology can also have a downside. Smartphone cameras now enable a visitor to capture and share an image (and location) easily and quickly. Whilst this may be attractive to some visitors, for those trying to 'escape', it could be construed as an intrusion into a natural experience.

Does technology mean the end for traditional field based skills, orienteering, keying out of species (for identification)? What about the privacy of those visiting the same place? What if someone's image is captured and shared without permission?

If a visitor is obsessively taking pictures and focusing on sharing their experience via social media, are they

missing out on an authentic natural experience in a national park?

Will potential visitors be encouraged or discouraged from visiting a national park if they can see a wealth of images readily available online? Does oversharing remove some of the mystery and excitement of first visiting a natural place?

### What does the future hold?

As technology continues to evolve and new gadgets and applications are released to the market, so do the opportunities for advancement in protected area management. Embracing technology and working with app developers could open up new ways of conserving threatened species and connecting people with nature. For younger generations, entwining science and technology could make natural sciences and conservation exciting and relevant.

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# PARK IN FOCUS

## Moreton Bay Marine Park

Kirsty Leckie, Conservation Principal

Stretching from Caloundra in the north to the Gold Coast in the south, Moreton Bay Marine Park boasts spectacular beaches, habitat for marine mammals and migratory birds along with a wealth of natural and cultural heritage.

Moreton Bay is one of Australia's largest estuarine bays and is managed as a multi-use marine protected area. From whale-watching and snorkeling through to fishing and aquaculture, the park is a hive of activity. In this issue, Kirsty Leckie provides an overview of the park, insight into the resident flora and fauna and discusses some of the threats to the park's ecosystems and wildlife.

### Exploring the diversity of the bay

Moreton Bay is home to a spectacular range of habitats and unique ecosystems.

Pandanus trees (*Pandanus tectorius*) line the fringes of rocky shores, areas that are home to sponges, anemones, limpets and periwinkles.

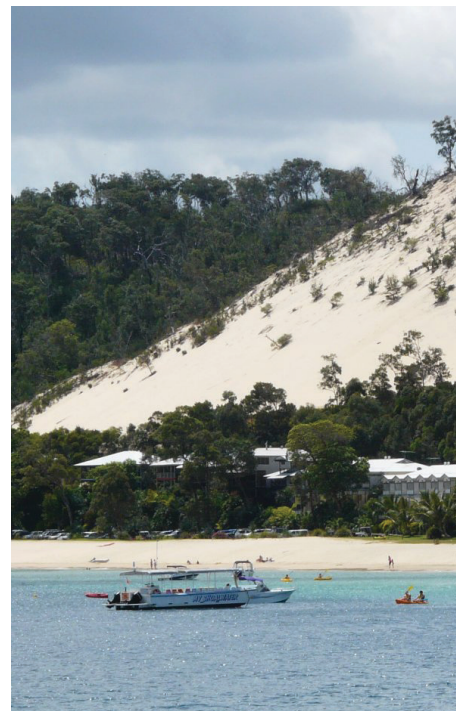


The intertidal rocky shores of Moreton Bay are fascinating to visit, providing keen observers with a natural lesson in marine biology and adaptation. Rock pools give way to the ocean and the seagrass beds and coral reefs that lie beneath.

In the warm waters of the bay, intertidal flats give rise to shifting sands, mud flats and lush seagrass beds. Intertidal flats may at first look like vast stretches of mud, closer examination reveals a rich diversity of species, including Soldier Crabs (*Mictyris longicarpus*), Green Paddle Worms (*Phyllodoce novaehollandiae*) and Yabby's (*Callinassa australiensis*). Another interesting resident is the Lamp Shell (*Lingula anatina*), which belongs to a group of animals called brachiopods. Brachiopods are 'living fossils' representing a line of animals virtually unchanged since the Precambrian Age (500 million years ago).

Seagrass beds are found throughout Moreton Bay, and in many places can be seen towards the low water mark. As the name suggests, seagrasses are flowering plants which form meadows on muddy and sandy substrate under the ocean. Meadows of seagrass help to stabilise the sediment on the bottom and also slow water movement in the bay. These lush underwater plants also provide foraging grounds for dugong and Green Turtles. In 2016, a team of researchers found increasing areas of mud and silt are suffocating seagrass meadows, with beds close to the Port of Brisbane most affected.

Coral reefs in the bay provide shelter and feeding grounds to over 1000 species of fish. Most of the reefs found in Moreton Bay are formed on rocky outcrops rising up from the sea floor. Reefs are almost all confined to



the northern two-thirds of the Marine Park and are dominated by different species of coral. The mix of tropical and subtropical species of coral that cohabit the reefs in Moreton Bay is unusual, and rich in diversity. Noble Staghorn Coral (*Acropora nobilis*), branching Finger Coral (*Acropora digitifera*), and the intricate colonies of Massive Coral (*Psammocora superficialis*) are just a few of the species that can be found by intrepid snorkelers and divers.

Coastal wetlands encompassing mangrove forests, saltmarshes and mudflats are found throughout the bay. The majority of the Bay is a Ramsar wetland (the International Ramsar Convention recognises wetland areas of international importance). Mangroves act as a natural filtering system, and are made up of trees and shrubs in the intertidal zone. Seven species of mangroves are





found in Moreton Bay, including the rare Black Mangrove (*Lumnitzera racemose*) found on the western side of North Stradbroke Island. There are approximately 13,500 hectares of mangroves within the Marine Park.

On the landward side of the mangroves, bands of saltmarsh can be found. Meadows of Marine Couch (*Sporobolus virginicus*) flourish in the extremely salty environment, though relatively few animals survive preferring the nearby areas of mangroves.

Sedgeland complete the assemblage, forming a dense band where salinity is lower and there is a regular influx of freshwater.

#### Marine mammals and wildlife

Marine turtles, bottlenose dolphins, grey nurse sharks and dugong are just a few of the species that inhabit Moreton Bay. Dugongs can be found grazing on meadows of seagrass (*Halophila ovalis* and *Halophila spinulosa*). Green turtles also enjoy grazing on seagrass before moving to the southern Great Barrier Reef to breed in rookeries. The bay provides an important feeding ground

to other resident populations of marine turtles including Loggerhead (*Caretta caretta*) and Hawksbill (*Eretmochelys imbricata*) turtles.

Humpback whales are seasonal visitors to the bay as part of an annual migration to the southern Great Barrier Reef for breeding. Whale watchers can view these majestic creatures from vantage points at Cape Moreton and Point lookout or from the decks of one of the commercial tourism operators.

Sleek Grey Nurse sharks (*Carcharias taurus*) can also be found in the bay. Large and slow moving, grey nurse sharks congregate around gutters and reefs and are protected under Queensland legislation.

#### Threats and the complex challenge of managing the marine park

Moreton Bay Marine Park is an area under constant pressure. Encroaching development, boating, fishing, tourism, runoff from agricultural, residential and industrial land all place the different ecosystems in the bay under stress. Proposed developments at Toondah

Harbour and North Harbour pose a risk to the Park, fish habitat areas and marine flora and fauna. Activities like dredging and reclamation can cause serious environmental harm.

In order to manage a complex swathe of pressure, the Marine Park is managed as a multi-use protected area. This means the marine park is zoned according to allow recreational and commercial activities, whilst also setting aside areas for conservation. Green (no-take) zones are a valuable part of this mosaic approach providing areas where ecosystems and species can live and thrive without additional stress.

Government, communities and industry all need to work in collaboration to ensure that Moreton Bay Marine Park continues to thrive. Residents of South-East Queensland can play an active role in protecting the bay by remembering that all stormwater and runoff ends up in the bay. Taking care and minimizing the amount of nutrients flowing into the bay will be healthier waterways and a healthier environment for Moreton Bay Marine Park.

#### Resources

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[www.nprsr.qld.gov.au/parks/moreton-bay/index.html](http://www.nprsr.qld.gov.au/parks/moreton-bay/index.html)

(2016) <http://www.abc.net.au/news/2016-06-02/moreton-bays-muddy-problem-could-drive-away-sea-life/7469398?section=environment>

#### Images

Mangroves (Kirsty Leckie), View over beach (Paul Donatiu), Green turtle (GBRMPA), Tangalooma (NPAQ).



# FEATURED WALK

## Moreton Island National Park

Yvonne Parsons, Member

Moreton Island is a juxtaposition - although close to Brisbane (at its closest point, the island is only 22km from Brisbane GPO) it is worlds away from the urban environment; and whilst it is visited by thousands of people each year, it is entirely possible to leave the crowds and 4WDs behind and enjoy the natural wonders without disturbance from others.

It is a fragile environment, delicately balanced. The island is generally composed of pure silica deposited by prevailing winds and waves, with the sensitive sand dunes protected by spinifex and ground covers. The pure lakes contain few nutrients.

Being the largest of the Bay Islands, Moreton covers 185 sq km, and is part of the southern sand mass which includes Fraser, Cooloola coast, Bribie and North Stradbroke. The national park covers the majority of the island.

Rolling sand dunes, steep cliffs and

wallum heaths dominate the island with a scattering of eucalypt forests and woodlands. Moreton is home to one of the highest sand dunes in the world - Mount Tempest, at 285 metres, and also contains dune blowouts, or sand blows. These sand blows are caused when the vegetation cover is disturbed. Forming huge horse-shoe shapes, they grow in size over time.

Moreton Island, is a must-visit place for lovers of marine life, and is a bird lovers paradise. Migratory birds travel from the Arctic Tundra to Eastern Siberia, loggerhead and green turtles nest onshore between November and February, and migrating whales pass close to the eastern beaches from August to October.

The Ngugi people - a clan of Quandamooka people, inhabited Moreton Island (named Moorgumpin). Shell middens indicate occupation for at least 2,000 years. An abundant marine life provided an excellent diet. The indigenous heritage has been well preserved due to limited development of the island, with 330 cultural sites remaining.

European history includes a pilot station, Queensland's oldest operating lighthouse, WWI and WWII fortresses and sand mining.

### Mount Tempest

Rolling into Tangalooma on a sunny day, the water provides an azure shade that contrasts with the rich rusty shade of the wrecks. Heading inland provides an opportunity to photograph and wonder at the flora. If visiting in the spring, enjoys the blooms, Banksias, pea bush, wedding bush and wattles are abundantly interspersed amongst the open eucalypt forests, typical of the plant

communities on the island.

Ascending Mount Tempest, the world's largest known vegetated sand dune, affords 360 degree panoramic views. The breathtaking scenery includes a preview of the island's features to be explored at your leisure. Choose between long circuit walks or shorter walks. Be aware that walking on soft sand can become very tiring.

### Blue Lagoon

Blue Lagoon, the largest freshwater lake on Moreton provides a refreshing place to take a dip in clear tea-tree stained water. Rather than being a privileged observer. Extreme care must be taken not to pollute the pristine lakes on Moreton.

It is these experiences which show us that we all have much to learn and experience in the natural environment. Fall gracefully asleep in the campground as the ocean provides a lullaby, to be woken occasionally by the mournful cries of the Stone Curlew. Wake early to beachcomb and capture the magical sunrise that only a beachfront view can provide.

If visiting when the whales are migrating, do not despair if a large number of 4WD traffic appear on the beach. Abundant vehicles equates to an abundance of whales on the 'Pacific Ocean Whaleway'. Plumes of water can be seen as breaching whales splash down on the ocean surface from near and far. A strange, calm feeling of euphoria can wash over you, as you realise how privileged you are to witness these magnificent creatures that seem to perform just for you. Just beyond the breaks, fins are gently raised that appear to reach as tall as the opera house, then playfully slap down again.





### Mirapool Lagoon

Approximately 20 years ago, weather events and shifting tides combined to form a new lagoon. With meticulous planning, head off to reach the lagoon whilst the tides allow.

If the tides are right, inspect the Little Sandhills along the way. A vastness of sand dunes provides the opportunity to capture images of the naturally sculptured landscape.

Upon reaching Mirapool, explore the lagoon that has become a tourist resort for migratory birds. Bird watching enthusiasts easily become elated, and budding botanists are fascinated with nature's artwork on the shores. It is disappointing to often find litter and debris here. Visitors to Moreton Island need to bear in mind that there are many sensitive environs. Taking care whilst visiting and removing rubbish when departing are simple but effective ways to protect the unique environments.

On the way back to camp, marvel at the fragile geological rock formations, known as coffee rock. These rocks are formed from millions of years of mineral sediments and dune debris, coagulated into a solid mass. The resulting rock is soft, and therefore quite fragile.

### Cape Moreton

Head to Cape Moreton, the most north-easterly point on the island, and walk the headland trails to drink in the history of the European pioneers. Along the way, admire the regeneration work undertaken by the Moreton Island Protection Association. Take in the views in all directions from various vantage points around the lighthouse and headland.

This setting offers the perfect spot to settle in for a long stint of whale, dolphin and turtle spotting. This location also offers a superb setting to reflect on the fragile beauty of Moreton Bay, and the wonders you have experienced there.

A stunning sunset on the return barge journey back to the city, can alleviate the sense of sadness felt upon departure.



Access: Public ferry, resort boat, private boat.

Facilities: 3 small settlements (Koorinal, Cowan Cowan, Bulwer), Tangalooma Resort. Camping, water, toilets, showers, walking tracks, hiking trails, lookouts.

Restrictions: Camping and 4WD permits required, 4WD vehicle access only; no domestic pets.

### Resources

<http://www.npsr.qld.gov.au/parks/moreton-bay/zoning/pdf/marine-park-user-guide.pdf>

<http://www.npsr.qld.gov.au/parks/moreton-island/>

<https://www.lonelyplanet.com/australia/queensland/moreton-bay>

Daly, J & L. (2002). Take a Walk in Queensland's National Parks, Southern Zone.

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### Images

Moreton Island, Source: Anna Tran

Campsite, Source: Anna Tran

Hiking up the dunes, Source: Ann Ingram

# WILDLIFE FEATURE

## Dugong dugong

Kirsty Leckie, Conservation Principal

The first documented account of dugongs in Pumicestone Passage was made by Matthew Flinders in 1799 (Lanyon, 2003). A local dugong fishery became established in the area from 1877 to the early 1900s (Thomson, 1967). Eventually this fishery closed, due to unsustainability and declining numbers of dugong. Numbers of dugong today are still recovering, with ongoing efforts to understand the biology, distribution and threats to populations.

Today, one of the largest concentrations of dugongs in south-east Queensland waters is found in Moreton Bay. In this issue of Protected Kirsty Leckie takes a closer look at dugongs and the finely tuned relationship populations have with seagrass meadows.

### Biology

Dugongs (*Dugong dugong*) have a large head and a trunk-like upper lip. Closely related to the land-dwelling elephant, dugongs can reach up to three (3) metres in length and weigh more than 400 kilograms. Females can take 10 to 17 years to mature and reproduce.

Mature females produce only one

calf every three to five years. This places great importance on the survival of adult individuals in order for populations to remain viable. Dugongs can live for up to 70 years, an impressive feature in the natural world!

### Habitat

The warm waters of Moreton Bay and the Pumicestone Passage are home to dugongs year round. Aerial surveys have provided an insight into the distribution of individuals and herds of dugongs. Sightings and observations suggest dugongs use these areas year round, grazing in the shallows on meadows of *Halophila* and *Halodule* species of seagrass. Dugongs tend to move in response to water temperature, preferring water above 18-19°C.

### Distribution and threats

The distribution of dugong populations is closely related to the abundance and distribution of seagrass meadows. Any impacts to the health and abundance of seagrasses has a resultant impact on dugongs. Damage from anchors, nets and fishing activities all have a negative impact on the health of seagrasses. Large scale development which removes

or damages seagrass (deposition of sediments, dredge plumes, etc.) has serious consequences for resident dugong populations.

These impacts are compounded by slow breeding. Efforts to understand population dynamics and distribution are ongoing.

Results indicate a species under stress. Slow moving dugong are vulnerable to boat strike, the cause of most anthropogenic mortalities. To overcome and try to manage this threat, 'Go-Slow' areas have been implemented in the Moreton Bay Marine Park (NPRSR, 2016).

For dugong populations to survive and thrive, measures also need to be undertaken to protect sensitive seagrass meadows.

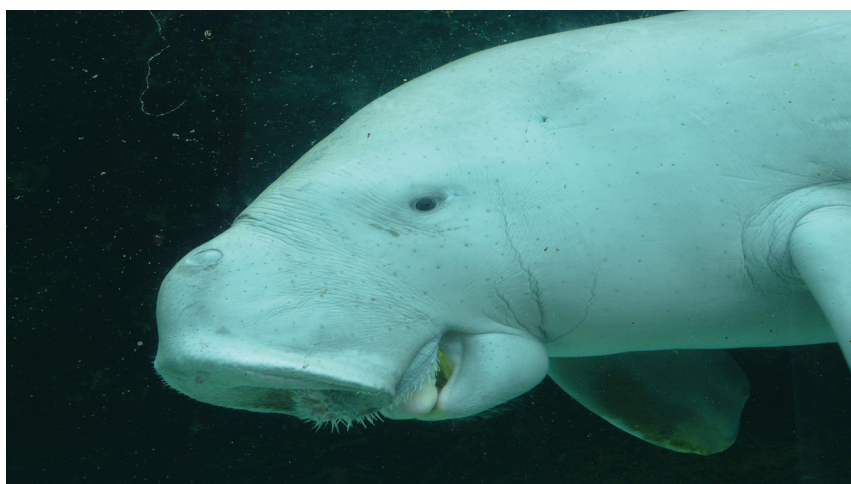
These gentle giants of the ocean deserve ongoing monitoring and stronger protection measures to ensure populations continue to call the waters of Moreton Bay home.

### References

- [www.npsr.qld.gov.au/marine-parks/boat-strike-turtle-dugong-mbmp.html](http://www.npsr.qld.gov.au/marine-parks/boat-strike-turtle-dugong-mbmp.html)
- Chilvers, L. Date: 2005 Moreton Bay, Queensland, Australia : an example of the co-existence of significant marine mammal populations and large-scale coastal development. *Biological Conservation* (Online), 2005, Vol.122(4), pp.559-571
- Lanyon, Janet M. 2003 . Distribution and abundance of dugongs in Moreton Bay, Queensland, Australia. *Wildlife Research* 30 , 397-409.
- Thomson, A. K., 1967. The collected works of Thomas Welsby. Vols I, II and III. Jacaranda Press, Brisbane.

### Image

Dugong, Source: Karen Langton



# THE NATIONAL PARK EXPERIENCE

why national parks should be valued, told through the lens of personal experience in Queensland national parks

Yvonne Parsons, NPAQ Councillor

*“Come with me and let's make a family day of it”* said my daughter who was given free passage to Tangalooma resort so she could attend an interview for a hospitality position. This was my first taste of Moreton Island, and it left me thinking I had no real desire to return as a tourist.

I had no wish to feed apparently wild dolphins, (I would rather watch them frolic in the waves from a good vantage point) I had no wish to traverse the sand dunes on a motorised vehicle or share a small part of the island with a thousand or more people at a time.

This kind of experience may be ideal to introduce people to some of the islands attractions not reachable without a 4WD but it certainly wasn't for me.

That first visit we spent our limited time walking the section of beach to the iconic Tangalooma wrecks. We were dismayed at the way 4WDs were tearing up the sand on access points to the island's version of main roads,

and at the amount of debris either washed up from boats or left behind by landlubbers.

I was not particularly vocal about my environmental views at this time. This journey added to the convictions that I now hold in relation to how we should treat this planet, and that a good place to start is at the local level.

Fast forward a few years to 2009, In our first year of NPAQ membership we joined the annual trip to Moreton Island's Blue Lagoon in August.

This trip cemented a hunger to experience our natural world far beyond the lookouts and information signs provided for visitors in these special places.

I left the island knowing there was still a few trails and hidden gems worthy of a return journey.

For the next two years I returned to Moreton Island, which never disappointed. The many highlights included tackling the telegraph

trail, undertaking a trek from Bulwer to Honeymoon Bay across some old buried forest and mini dune landscapes up to Cape Moreton.

Visiting a secluded and very fragile ironstone landscape made a lasting impression. The guide only takes groups considered trustworthy of respecting this fragile environment to such places.

These trips highlighted what I love about experiencing the wonders of national parks.

The opportunity to stand with camera in hand, ready to capture fascinating skylines over the horizon as the sun rises.

Collecting simple treasures to examine along the golden sandy stretches of beach, all the more majestic in the morning light.

For others it may be performing yoga under the cool light of the morning sun or reading a book stretched out on a towel on the dunes.

Perhaps going beachcombing and providing a few human elements for the photographers palette.

For me, it is simply a wonderful way to achieve a sense of connection with the natural environment around us.

## Image

Tangalooma wrecks, Source: Yvonne Parsons



# SPOTLIGHT - RANGER OF THE MONTH

**Rodney Toney (QPWS)**

## **Background**

Spotlight is a series focusing on QPWS rangers for NPAQs bi-monthly magazine Protected. Questions have been designed to provide an insight into the diverse backgrounds and day-to-day activities of Queensland's park rangers.

**Rodney Toney**, Ranger at Binna Burra Section, Lamington National Park, grew up at Wyaralong near Boonah. With his family he moved to Beechmont in 1962. Rodney is one of the last former Forestry workers in QPWS, and will retire on 15 July 2016 after 46 years of looking after Lamington.



## **How long have you worked in national parks?**

I've worked with Parks since 11 May 1970, always based at Binna Burra. I was just two weeks shy of 20 when I joined. Before that I worked at the Army base at Canungra. Back then, the National Parks Branch was in the Department of Forestry. I joined as a Workman – equivalent to a OO3 Ranger now. The Gangers were equivalent to today's 2IC Ranger, and an Overseer would be today's Ranger in Charge. The District Forester we'd call a Senior Ranger today.

## **Which parks have you worked in?**

Nearly all my 46 years have been at Binna Burra section of Lamington, with some short stints at other nearby places such as Springbrook and Burleigh Head national parks. My longest stint away from Lamington was in 1978 when I helped build the bitumened tracks you see at Burleigh today. We had less than six months to dig out the tracks, fill them with gravel and put tar seal over the top.

## **What is your most memorable moment?**

I think it would have to be the Lamington 100th anniversary celebrations in 2015. It was great to catch up with friends I hadn't seen for years who'd worked with me on the park, like Tom Ryan. Over at Green Mountains at the anniversary celebrations, I caught up with a descendant of Robert Collins [Lamington NP co-founder] who had also grown up at Wyaralong. I hadn't seen her for maybe 52 years.

## **Can you describe your favourite national parks experience?**

Daves Creek Circuit is my favourite.

On my first task on the park, we walked that track anti-clockwise and I remember seeing the cliffs for the first time. I'd never been so close to a cliff that high. It was memorable. Second favourite would be the Border Track. Over the years I've probably walked it about 20 times, often on my weekends. Along the Border Track, a good place to hear and see lyrebirds is near the Joalah lookout, early in the morning.

## **What is the best part about working in a national park?**

The visitors. When you're working on something or have finished a job and they give you positive comments, you know you are doing the right thing. We like to do a good job and keep people happy.

## **What is your top tip for visitors to parks for bushwalking?**

Plan your walk. Stay on the track. Check weather conditions before you set out, particularly before a long walk. Don't start a long walk late in the day – make sure you have enough time to get back by dark. Don't walk alone.

## **What are your top tips for campers?**

Have a permit, have the right gear, and tell Park staff, relatives or friends where you are going. Camp in designated areas.

***NPAQ would like to thank Rodney for his time and effort in answering our questions. We hope you have enjoyed finding out more about one of Queensland's most experienced Rangers.***

# WHAT'S ON

## NPAQ Activities

### **Birding -Riverdale Park, Meadowbrook**

Saturday 24 July 2016

Location: Riverdale Park carpark, at the end of Armstrong Road, Meadowbrook

Grading: Easy

Leader: Ian Peacock ( 07 3359 0318, 0416 943 280, ianpeacock@hotmail.com)

Fee: \$5 NPAQ Fee

The park is bounded by the junction of the Logan River and Slacks Creek. The area consists of bushland and a waterhole system.

Meet at 7.30 am, Riverdale Park carpark

### **Vegetation Management Group**

Saturday 20 August 2016

Location: Meet at Jolly's Lookout carpark, D'Aguilar National Park

Grading: various

Leader: Angus McElnea (0429 854 446, or gus\_mcelnea@hotmail.com)

Get your hands dirty! Come and spend a couple of hours to help with lantana control and revegetation work in the Boombana and Jollys Lookout sections of D'Aguilar National Park, west of Brisbane.

## Upcoming Activities

### **Extended Activity – Central West Qld National Parks**

Saturday 27th August to Sunday 4th September 2016

Leader: Wendy Bell (ph 07 3300 2473)

A unique opportunity to explore some of Queensland's remote National Parks in the luxury of a fully airconditioned 4WD coach and staying in en-suite motel accommodation.

This tour has been especially designed for NPAQ members and supporters to emphasise the major Western National Parks with some other interesting feature which we will be passing en route.

**For more information, or to register for an activity, please go to our website:**

[www.npaq.org.au/events](http://www.npaq.org.au/events)

Highlights will include Bladensburg NP, Diamantina NP, Dinosaur Stampede at Lark Quarry Conservation Park, Lochern NP, Welford NP, Idalia NP, Lara Wetlands and a Welcome to Country and Australian Age of Dinosaurs Tour and Dinner.

The tour will begin and finish in Longreach but with optional return flights to Longreach or Fly and Train return to Brisbane included in the price.

For any queries and a detailed itinerary, please contact Wendy Bell.

## NPAQ Events

### **Annual General Meeting and Annual Awards Dinner**

Wednesday 21st September 2016

Time and Location to be confirmed closer to the date.

### **July Brisbane Region Social Evening**

Wednesday 20 July

7:15pm for a 7:30pm start

Mt Coot-tha Botanic Gardens Auditorium

Ian Peacock will share his trip memoirs of the 2015 NPAQ Extended Bird Group outing to Byfield NP, 1770, Deepwater NP, Tannum Sands, Gladstone and Lake Awonga. This was not just a bird outing, as there were a lot of tourist activities and attractions along the way.

Len Lowry will take you on a trip to Brampton Island and show what is involved in trying to restore "our bush" with the help of Wild Mob.

All welcome, supper provided.

### **Interested in Serving as a NPAQ Councillor?**

Are you interested in driving the strategic direction on behalf of the membership of NPAQ, and contributing to good governance to ensure the Association is well run?

Do you enjoy a challenge?

Become a NPAQ Councillor and contribute to achieving the longterm sustainability of the Association and the achievement of its worthwhile mission.

Complete a Councillor Nomination Form enclosed with this magazine.

Nomination forms should be submitted to the Honorary Secretary by close of business **Monday 22 August 2016.**

- Email to [secretary@npaqa.org.au](mailto:secretary@npaqa.org.au) or

- Mail to: Honorary Secretary  
PO Box 1040, MILTON QLD 4064

Once your completed nomination form is received you will be sent a confirmation email.

If you do not receive confirmation within 48 hours (or 72 hours if sent by post), please contact the NPAQ Office on 07 3367 0878.

## Vale

Our sincere condolences to the families and friends of John Forster who recently passed away.

## Have Your Say

### **Priority Issues for Queensland National Parks – NPAQ Survey**

Our national parks and other protected areas are constantly under pressure from various issues that can affect their sustainable future, the biodiversity within them and our ability to enjoy them.

What do you think are the most important issues concerning national parks and other protected areas (on land or sea)?

Have your say on the enclosed NPAQ Survey form.

Please return completed surveys to the NPAQ Office by **Wednesday 31 August 2016.**

Email to [admin@npaqa.org.au](mailto:admin@npaqa.org.au), or post to NPAQ, PO Box 1040, MILTON QLD 4064

## Keep an eye out for fire ants



Report suspicious ants to Biosecurity Queensland on 13 25 23



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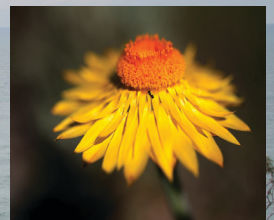
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