

# protected



Magazine of National Parks Association of Queensland

## bees in national parks

visitor centres  
noosa national park  
mt maroon  
bulloak jewel  
the national park experience

Issue 4 October-November 2015



# Welcome to the October/ November edition of **Protected**

**Michelle Prior, NPAQ President**

Thank you to all Councillors who renominated, and were elected at the September AGM, for another term on the NPAQ Council – Tony O'Brien (Vice-President), Athol Lester (Vice-President), Debra Marwedel (Honorary Secretary), Graham Riddell (Honorary Treasurer), Yvonne Parsons (Assistant Secretary); and Councillors Mike Wilkie, Richard Proudfoot and Julie Hainsworth. Three Councillors – Peter Ogilvie, Geoff Lowes and Des Whybird continue in office for a further year.

I would like to acknowledge all Councillors, and thank them for their continuing commitment to the Association, and their generous contribution of time and skills.

At this year's Annual Dinner, NPAQ was honoured to celebrate eight members who have been members for fifty years or more – Allan Brown, Len Fraser, Nola Fraser, Jeanette Porter, Hugh Porter, Terry Rayner, Ian Webb, and Lorna Williams – with the bestowing of the Romeo Lahey Recognition Award. Thank you for your involvement and commitment to NPAQ.

Thank you to NPAQ's staff - Paul Donatiu, Anna Tran and Jeannie Rice - for your assistance and support, and for your willingness to embrace the changes required for the Association to build a strong foundation for the future.

Most importantly, I would like to thank the NPAQ members. Change is not an easy process. Thank you for your tolerance of the process, your continuing support and belief in the future of the Association.

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## Mission Statement

The National Parks Association promotes the preservation, expansion, good management and presentation of National Parks in Queensland.

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## Disclaimer

Articles in **Protected** do not necessarily reflect the opinion or position of the National Parks Association of Queensland.


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## Images

Cover - rocks and surf at Mon Repos (courtesy of Qld Government); page 2 strip - Pigface on coastal dunes (Paul Donatiu).



A photograph of a dirt path in a forest. In the foreground, a blue sign with white text is partially visible. The path leads into a wooded area with many trees and some undergrowth. The lighting suggests it might be late afternoon or early morning.

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# BEEES IN NATIONAL PARKS

Neil Douglas  
NPAQ Member

Around ten years ago, the beekeeping industry was given notice that hives are to be phased out of Queensland national parks by 2024. Despite changes in government since then, this policy has remained in place. As the deadline gradually approaches, sections of the industry have become more vocal in seeking to have the policy reversed. This article examines the relationship between the industry and national parks in Queensland and explores the arguments for and against allowing it to continue in those areas.

## The beekeeping industry in Australia

The European honeybee (*Apis mellifera* = honey-bearing bee) was first introduced into Australia about 170 years ago and beekeeping soon became established in all States. The annual output of the industry is now around \$100 million per annum<sup>1</sup>. Australian honey is valued for the distinctive flavours imparted to it by the flowers of native plants such as eucalyptus and leptospermum species. So far the industry has been able to remain free of the parasites and diseases that have devastated beekeeping in many other parts of the world. This means that it is not only Australian honey that is an important export but also breeding stock to replenish disease-ravaged hives overseas.

Bees forage up to 2 km from their hives and gather two products – nectar (which is of course the basis of honey) as their main energy source, and pollen which provides the hive with protein for the growth of juvenile bees. During the collection of pollen the host plant may be fertilised if conditions are right.

The beekeeping industry is mobile in nature. Hives are moved around according to where the most nectar and pollen are available at a particular time. Hives may be moved several times a year and remain at a given location for only a few weeks. The industry claims that hives are placed in an area only when nectar and/or pollen is abundant and there is an excess for native fauna.

Although some nectar is derived from non-native sources such as crops, by far the most desirable source is native shrubs and trees. In Queensland, there is a concentration of the target trees in the south-east of the State. Unfortunately this is also the part of Queensland which suffers from the greatest development pressures and where much of the privately-owned forest country is being lost. Therefore, the industry has become increasingly dependent on publicly-owned forests to remain viable<sup>2</sup>. The conversion of many state forests in the south-east to national parks, which are to be closed to beekeeping from 2024, is a development which has caused much concern to the industry. It is reported that over 3,000 apiary sites will be lost<sup>3</sup>.

## Effects of beekeeping on the environment

Prior to the introduction of honeybees in Australia, pollination of native plant species and gathering of nectar were carried out mainly by native bees, of which there are over 1,500 species. Some of these are quite specialised as regards plants they access. Since honeybees forage for longer periods and over greater distances than their native counterparts, this obviously gives rise to concerns about adverse effects on the environment, not only as regards floral resource depletion, but also promotion of undesirable plant hybridisation.

The most extensive studies on the environmental effects of honeybees in Australia appear to have been carried out in the 1990s, especially by Paton<sup>4</sup>. The studies considered various factors, including reductions in numbers of native bees and nectar-dependent birds (mainly honeyeaters) when honeybees were present, and evidence of native plant hybridisation. Experimental evidence varied with different ecosystems, but overall it suggested that honeybees did cause a decline in native bee numbers, although Paton was not convinced that this resulted from competition. The introduction of honeybees caused a reduction in the number of honeyeaters visiting some plant species (e.g. Callistemon) but not others (e.g. Banksia) – although in the latter case it was noted that there was a surplus of floral resources





at the time of the study. Evidence suggested fairly clearly, however, that when floral resources were in short supply both native bee and honeyeater numbers declined in the presence of honeybees.

As a result of his investigations, Paton concluded that honeybees should continue to be excluded from reserves that had not been regularly used for apiculture, but could remain in areas with an established industry. However, this was subject to some provisos – that there was no specific evidence of detrimental effects, and that 30% of the natural resources within each biogeographic region should be free

from exposure to honeybees.

Published studies do, however, nearly all suffer from the disadvantage that the native flora studied have been limited to shrubs close to the ground where observation is relatively easy. There is a dearth of knowledge regarding tall trees, such as eucalypts, which are also targets of both honeybees and native insects. There are unpublished observations that honeybees have been the main insects caught in nets deployed around eucalypt blossoms. These same observations also reported that Callistemon stands have lost up to 50% of their honeyeater visits when bee numbers rose.

Honeybees are good pollinators and can potentially replace native insects in fertilising native species if the latter decline in numbers. However, this is more likely to be of assistance in degraded environments rather than in national parks. One concern that appears to be unfounded, though, is that of plant hybridisation. No studies have found that honeybees increase this in native plant species, despite that they are less selective in foraging than native bees. It has been proposed that this is because native plants are genetically resistant to interbreeding and that other factors such as flower shape may also play a role.

The industry claims that beehives are moved into forest areas only when floral resources are abundant.

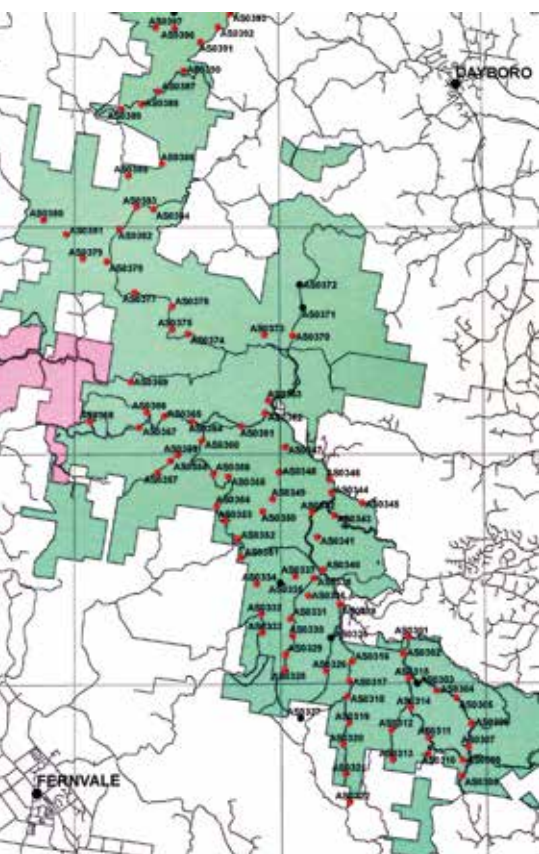
However, it is well known that in times of widespread drought honey prices can rise substantially, and this presents a temptation to use forests regardless in a bid to get whatever monetary returns are available. Under such circumstances the natural ecosystems are placed under even greater stress, but licences are not suspended or revoked according to climatic conditions.

A further factor to bear in mind is that, although most managed bees remain in hives, some do escape and form feral colonies. Beekeeping in national parks increases the risk of feral bees becoming established in those parks or increasing in numbers if they are already there. Unlike the managed bees, these will definitely be present to compete with native fauna for nectar and pollen even in times of scarce resources. However, there is not much evidence that feral bees occupy nesting hollows used by native animals.

### Controls on beekeeping in other jurisdictions

So far the Northern Territory is the only part of Australia to ban beekeeping in protected areas entirely, but that is set to change. Only South Australia and Victoria are issuing new licences on such lands<sup>5</sup>, so by 2024 several other States as well as Queensland may well have fallen in step with the Territory.

In 2002 New South Wales declared competition from feral honeybees to be a Key Threatening Process







in protected areas. Although the decision related to feral bees, some of the reasons were also relevant to managed beekeeping – especially the removal (up to 80%<sup>4</sup>) of floral resources used by native birds and insects, and reduced seed-set of native plants caused by removal of pollen.

### Commentary

One can sympathise with the difficulties faced by the beekeeping industry in Queensland as a result of loss of available forests. However, extensive clearing has made protection of the remaining forests and their fauna even more important, especially given that this State has the lowest proportion of national park (5.05%) of any Australian jurisdiction. The beekeeping industry is just one casualty of poorly controlled land use

in south-east Queensland. There have been proposals to establish plantations of trees (“trees for bees”) as alternative nectar and pollen resources for the beekeeping industry, but this is expensive in terms of both land and labour and few economists think it is a viable proposition given the almost “niche” nature of the honey industry.

Having regard to all the circumstances, it is considered that on balance the Queensland authorities are right to adopt the precautionary principle and phase out beekeeping in national parks. The limited natural environment we have left needs to be protected from as many stressors as possible.

### Editors Note

In September this year the South Australian government, in collaboration with the University of Adelaide, initiated a \$600K program to map bee activity, prevent the loss of crop-pollinating species and protect pollination rates. Researchers are trying to stay ahead of the Varroa mite, which has devastated bee populations around the world (but is not yet in Australia), and projected climate impacts on habitat suitability for native plants and crop species alike. It appears that native bees are not affected by the Varroa mite.

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2. Gibbs, D. and Muirhead, I (1998). The economic Value and Environmental Impact of the Australian Beekeeping

Industry. Report prepared for the Australian beekeeping industry (published on-line).

3. Australian Broadcasting Commission Landline programme, 1.5.2005.
4. Paton, D. (1996). Overview of the Impacts of Feral and Managed Honeybees in Australia. Australian Nature Conservation Agency.
5. Compatibility of Management Objectives in Public Lands with Beekeeping. March 2015. Rural Industries Research and Development Corporation.

### Images

Pg3 - Apiary site and marker in D'Aguilar NP.

Pg4-5 banner - Flowering heath in the future Apsey-Badgery NP just north of Inglewood.

Pg4 map - Extent of apiary sites in souther D'Aguilar NP (red indicates active locations).

Pg5 - exotic bee on *Xanthorrhoea* flower spike (all photos by Paul Donatiu).





# VISITOR CENTRES

John Sinclair, Fraser Island Defender Organisation

Visitor centres play a pivotal role in elevating public appreciation and awareness of national parks, their constituent wildlife and natural ecosystems. They are vital gateways to fostering and building an enduring understanding of our protected areas.

Having seen visitor centres in all other states and many overseas countries, I am concerned at the lack of visitor centres in Queensland national parks, and at how poorly those visitor centres that we do have compare with their interstate counterparts. There are some great visitor centres in Queensland, but these have not been developed by the Queensland Government. Rather, they have grown out of community and commercial interests with strong local government support.

If anyone wants to appreciate good national park visitor centres, they need to look no further than Tasmania and the Northern Territory. I never cease to be impressed by the visitor centre in the Alice Springs Desert Park or at Cradle Mountain. Both of these provide unforgettable vistas looking out into the natural environment being protected. The former also has a range of activities for families to deepen their experience of, and associations with, Australian arid environments. Close to the Park boundary, the latter has a wonderful interpretive display, as well as detailed park information.

In Queensland I have been particularly struck by some visitor centres. The visitor centre for the World Heritage Riversleigh Fossil Fields is located in Mt Isa, about 200kms from Riversleigh. This centre is privately run and seems to have been created through a local government initiative. It is supported by admission fees (\$12 per adult, with concession prices for pensioners and children).

The Age of Dinosaurs Museum has a spectacular 1,800 hectare location atop a large mesa donated to the foundation 20kms outside Winton. It is such a must-see that most people stay an extra day in Winton. Interestingly, it was built by a private foundation in a collaborative effort supported by \$500,000 from the Queensland Government's Q150 Legacy Infrastructure funding, \$500,000 from Winton Shire Council, in addition to funding from other sources. The museum is now mostly self-sufficient, but continues to seek widely for additional funds.

Other outback visitor centres are often associated with historical museums, which receive some funding and support from local and state governments. Some are much more ambitious, becoming vital components of the economy of regional communities. Longreach, for example, has the Stockman's Hall of Fame and the Qantas Museum, while Barcaldine has the Workers' Heritage Centre, and Blackall has its wool scour. All of these are

focussed on history and all have received government funding to help establish them. There is no reason why visitor centres that are explaining and presenting natural history should not receive the same level of public support.

The Great Barrier Reef Aquarium in Townsville is a particularly effective visitor centre for this large World Heritage area. It focuses on presenting the natural history of the reef, and does so with such success that thousands of visitors annually extend their Townsville stay. The centre opened in 1987 as part of the Bicentennial Commemorative Project, with foundation funding from the Commonwealth Government. Visitors now pay \$28 per adult to explore this amazing facility.





David Fleay Wildlife Park at West Burleigh, on the edge of Tallebudgera Creek, is one of three visitor centres operated by the Queensland Parks and Wildlife Service. The others are Walkabout Creek in Brisbane, and the Mon Repos Turtle Centre near Bundaberg. The State Government is investing millions of dollars into upgrading these visitor centres, with the intention of encouraging people to visit nearby National Parks. All provide information about plants and animals found locally, and their conservation.

David Fleay Wildlife Park was named in memory of naturalist Dr David Fleay who bought the land in the 1950s to create a sanctuary for wildlife research and education. To this day, the park still continues to display

many iconic Queensland wildlife such as the Playtpus, Koala, Cassowary, Dunnarts, Brolgas, Dingoes, Crocodiles, Bridled nail-tail wallabies and Lumholtz's tree kangaroos. The park has wetlands and forests that connect to the surrounding bushland. There is also a mangrove boardwalk from the main car park to the front entrance, which then continues through Tallebudgera Creek Regional Park along Tallebudgera Creek. David Fleay is a popular destination for local school excursions, and is also popular with overseas tourists wanting a quieter alternative to the larger more commercial wildlife parks.

In Brisbane's backyard is the Walkabout Creek Visitor Centre, gateway to D'Aguilar National Park and only 12km from the CBD. While the displays and settings have aged a bit, kids and their parents/carers can still come face-to-face with local birds, mammals, reptiles and even the elusive platypus. The Centre is one of the few places in Brisbane where you can buy interpretive and natural history publications (another is the Queensland Museum which continues to produce quality guides for places throughout the state).

Just 14km east of Bundaberg, Mon Repos Conservation Park is a truly remarkable place, with the Turtle Centre defining what accessibility to our protected areas really means. Here visitors can learn about turtle journeys, turtle research, the local history of the area, and then join

Rangers to view nesting or hatching turtles.

Having explored so many visitor centres during 25 years of leading bush safaris to every state in Australia, I have long deliberated on what sort of visitor centre is needed for Fraser Island. It may be that the most appropriate location is not actually on the Island itself, but part of a local gateway community. Maaroom would make a great site - close to Maryborough, only five kilometres from the Cooloola Coast Road, and offering spectacular views of the Ramsar listed Great Sandy Strait and across the water to World Heritage listed Fraser Island. It is also one of the best bird-watching sites in Queensland for migratory waders, and it offers no distractions to appreciating the area's natural history.

Time will tell how we introduce new visitors to this, and other, uniquely Queensland national parks.

### Useful Links

<http://www.alicespringsdesertpark.com.au/>  
<http://australianageofdinosuars.com/museum-hub.php>  
<http://www.parks.tas.gov.au/?base=7560>  
[http://www.nprsr.qld.gov.au/parks/mon-repos/turtle-centre.html#mon\\_repos\\_turtle\\_encounters](http://www.nprsr.qld.gov.au/parks/mon-repos/turtle-centre.html#mon_repos_turtle_encounters)  
<http://www.nprsr.qld.gov.au/parks/daguilar/walkabout-creek.html>  
<http://www.nprsr.qld.gov.au/parks/david-fleay/index.html>  
<http://www.nprsr.qld.gov.au/managing/plans-strategies/gateway-visitor-centre-upgrades.html>

### Images

Beach at Mon Repos (courtesy of Qld Government) and Information Centre at Noosa National Park (Paul Donatiu).





# PARK IN FOCUS

## Noosa National Park

Denis McMullen, NPAQ Member

In the heart of one of the most popular international destinations on the planet lies Noosa National Park. Here the intersection of sun, surf, sand, rocky shores and the pristine waters of the South Pacific Ocean conspire to produce a park idyll that is the envy of the rest of Australia. Tea Tree Bay, Granite Bay, Hell's Gates, Alexandria Bay - all are well known iconic places, and all are capable of delivering memorable experiences of being in a beautiful natural place. Even incredibly high visitation and a burgeoning local population has not dampened the outstanding natural attributes of this pocket park. And that's just the headlands component!



The first sections of the Park were declared in 1939, and it now covers 2,883 hectares (including parts of Lake Weyba, Peregian and Coolumb). The geology of the Park dates back at least 140 million years. While Noosa Hill itself is sandstone surrounded by

high sand dunes, the headlands are a mixture of diorite boulders and cliffs, quartzite and some basalt dykes. During the last interglacial it is highly likely that the headlands would have been separated from the mainland as an island.

20 distinct vegetation communities and 870 species of plants (including fungi and algae) have been recorded in the Park, as well as 372 different animals, birds, frogs, freshwater fish, reptiles and invertebrates. Like many other parks in Southeast Queensland, Noosa NP provides valuable habitat for a range of rare and threatened species in a highly urbanised area (amongst these are the koala, glossy black cockatoo, swamp orchid, an endangered eucalypt, a highly restricted she-oak, and the red goshawk). This would largely be unknown however, if it were not for the great Information Centre (managed by the Noosa Parks Association) and outdoor interpretive display located at the main trailhead, both of which provide visitors with details about the history and natural values of the Park. One of the most startling images in this display is a photo graphically depicting what the headlands would look like without the national park!

The Noosa National Park Management Plan (1999) notes that reports of feeding and ceremonial sites at Noosa Heads are common but the exact locations of many sites are not known. Midden sites have been located on the shores of Lake Weyba and at

Peregian Beach. Noosa has significant management challenges including the application of ecological fire regimes, a large Park-residential interface, susceptibility to weed intrusions, and balancing an ever increasing recreational demand with preservation of the Parks wild features.

But let's check out what's on offer in this seaside wonder.

Noosa is jam-packed full of great little walks for families and those just wanting a short stroll. In particular, have a go at:

Palm Grove circuit (1km) - a short walk through fascinating coastal rainforest.

Noosa Hill track (2.4km one way)







- through eucalypt woodlands to a heavily treed lookout (the Park management plan notes that during World War II trenches were dug on Noosa Hill as part of a series of fortifications for the Sunshine Coast).

Tanglewood track (3.8km one way) - showcasing a suite of different vegetation types.

Coastal track (5.4km one way) - for the more ambitious, this is one of the classic coastal walks in Australia. Note this track is wheelchair and stroller accessible to Dolphin Point.

Alexandria Bay track (4.6km return) - the quickest way to reach this wonderful bay is through the heart of the parks woodlands and heath (caution - all beaches in the Park are unpatrolled, and some have strong currents and surf).

Beyond the headlands, have a look at:

Ocean track at Peregrine (1km return) - dunes and coastal wildflowers.

Emu Mountain summit (850m return) - montane heath and the endangered Emu Mountain she-oak *Allocasuarina emuina*.

Hakea track at Emu Mountain (1.8km return) - the distinctive shrubby hakeas have amazing woody pods that protect their seeds from fire.

Lake Weyba management trails - no official walks as such, but a great gateway to spectacular wildflower heaths (caution - stay on fire trails - this part of the Park was a military training ground during WWII and unexploded ammunition may still be found in this area).

NPAQ representations for a larger national park at Noosa headlands date back to 1947. In September that year, NPAQ conducted a field outing to Noosa Headland when 90 members and guests studied closely the wildflowers of this area.....examined the many coastal and headland features and made recommendations to extend the Park south along the headland as far as the permanent creek which emerges just south of the cliff line marked Paradise Caves (excerpts from a letter to the then Queensland Department of Public Lands). Since the Noosa Parks Association was established in 1962, both organisations have continued to campaign for additions to the Park.

There are few national parks

accessible as Noosa, but that also provide that distinct feeling of being away from it all. It remains one of the best parks to take family and friends from interstate or overseas.

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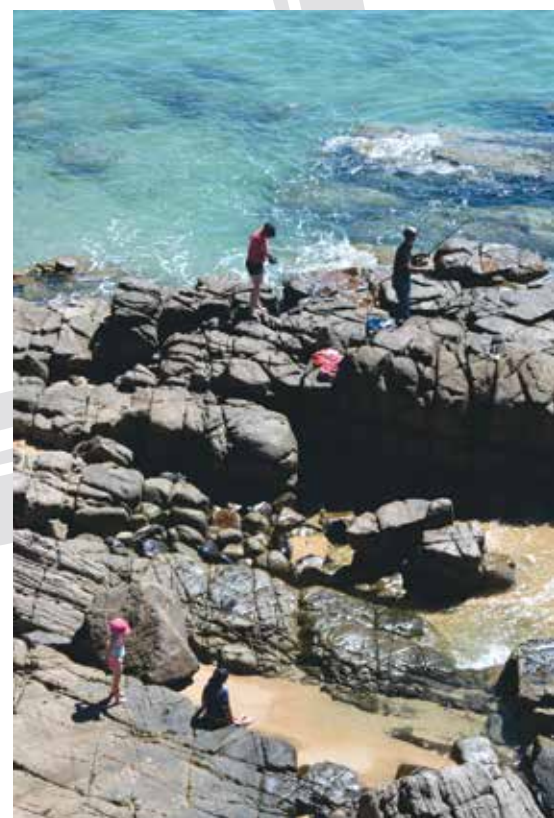
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## Images

Banner - Tea Tree Bay. From left - rice flower, walkers on coastal track, Emu Mt she-oak fruit, family fishing (Paul Donatili).





# FEATURED WALK

## Cotswold Track to South Peak Mt Maroon

Mary Anne Ryan, NPAQ Member

One of the most interesting walks in Southeast Queensland is the summit climb to Mt Maroon in Mt Barney National Park.

Lush eucalypt woodland on the approaches, a steep ascent up a very manageable gully, rocky platforms, incredible displays of wildflowers during spring, and some of the best mountain top views in the State - this walk has it all!



### Walk Notes

Distance is approximately 6 km, but can be extended to explore the summit plateau.

Most suitable for fit walkers.

Allow 4-7 hours for the return journey depending on fitness and the size of your group.

This walk is best avoided in wet weather because of slippery rocks.

The walk commences from the car park at the end of Cotswold Road, off Boonah-Rathdowney Road, Rathdowney, Southeast Queensland.

### The Climb

The Cotswold Track, via the north-east ridge, is one of a number of ways to approach the summit of Mt Maroon, and reported to be the easiest and most straightforward route to walk. The track is well used so it is straightforward to follow the worn footpad and where the track crosses over rocky areas, there are arrows painted on the rocks, or markers on the trees or occasionally a cairn or two to help guide you to the top.

Mt Maroon is not only favoured by walkers. There is a challenging and spectacularly beautiful rock face, so don't be surprised if you are joined for part of the walk by rock climbers gaining access to the base of the eastern face of the mountain.

From the car park (at 351m) walk up the ridge, past two old corrugated water tanks. At this point, you are on private property, but soon enter the National Park. Mt Maroon was first gazetted in 1938 as Mt Maroon National Park. In 1950, Mt Barney National Park was extended to include Mt Maroon and nearby Mt May.

Mt Maroon is part of the McPherson Range, a spur of the Great Diving Range and is recognized by its twin peaks – the north and south. The South Peak is the highest point on the mountain (966m at the summit). The original indigenous name for the mountain was *Wahlmoorum* which



means sand goanna in the Yugger language.

Some research indicates that the current name for the mountain comes from the first grazing property in the area called 'Maroon'.

Continuing up the ridge, the steepness increases and the rocks morph into boulders. Clamber over the boulders until you find a spot that offers views over the valley.







Onwards, the track begins to flatten out but then heads downhill towards the magnificent 200m vertical East Face cliffs. A sharp turn to the left and the track ascends into a significant gully. Just before entering the gully, another track runs off to the right, largely used by climbing teams looking for access to the East Face. Often climbers can be heard calling to each other, their voices resonating against the rock face.



Although the track up the gully is steep, there are foot and hand holds and it is possible to maneuver up with confidence and safely ascend this particular section of the track. The top of the gully brings you out to a flattish section with trees and a dry creek bed - a pleasant shady spot for a rest. Climb the large boulders on the left and admire more amazing views of the surrounding countryside.

Just past this section is a path to the right that leads up to the north peak area above the East Face cliffs. Ignore this path and follow the main track, as it meanders onward through tallish shrub. Skirt up and over the boulders following the arrows until you reach your destination.

At the summit, you will be greeted by an eight foot cairn. The views from Mt Maroon extend for 360 degrees. The close up view of Mt Barney is spectacular, with the wedding cake shape outline of Mt Lindsay in the background. The Lamington Plateau and Mt Tamborine are some of the sights from this vista. To the north, the interestingly shaped depression is the north peak of Mt Maroon.

The montane plateau of Mt Maroon offers a diverse range of habitats for many unusual plant and animal species. During spring months, many native wildflowers add splashes of colour to this rocky landscape including the sprawling sarsaparilla vine, mint bushes, tea trees, matchstick plants, native iris, blue

bells, grass trees and guinea flowers. You may even be lucky enough to see the pale yellow flowers of Mt Maroon wattle (*Acacia saxicola*) - an endangered plant only found in this national park!

To descend, follow the route in reverse. A deviation may include a trip to the north peak before returning to the main track and climbing down to the car park. The walk to the summit of Mt Maroon is challenging, but a great experience in one of our most spectacular national parks.



## References

[http://www.nprsr.qld.gov.au/parks/mount-barney/about.html#Cotswold\\_track](http://www.nprsr.qld.gov.au/parks/mount-barney/about.html#Cotswold_track)

<https://www.thecrag.com/climbing/australia/mt-maroon>

## Images

Banner - Moogerah Peaks in Southeast Queensland (Paul Donatiu). Clockwise from left - part of the East Face (Korinne Northwood), white flowering form of *Seringia hillii* on the summit plateau (Paul Donatiu), beautiful *Olearia microphylla* (Paul Donatiu), montane heath and woodland on the summit (Korinne Northwood), and view south towards Mt Barney (Korinne Northwood).

The author has endeavoured to ensure that the information presented here is as accurate as possible. However, they do not accept responsibility for any loss, injury or inconvenience sustained by any person guided by this article.



# WILDLIFE FEATURE

## Bullock jewel butterfly

Michelle Shaul, Contributor

Just west of Queensland's Darling Downs within the spindly, fine foliage of the bullock tree lives a colourful native butterfly as beautiful as it is rare.

Sitting on the smaller end of the size spectrum, the Bullock jewel butterfly (*Hypochrysops piceatus*) has a wingspan measuring a mere 23-25 millimetres. Its delicate wings are made up of iridescent scales, the topside of which appear a dull dusty purple in males, and a pale bluish-purple in females. Both sexes have broad wing margins coloured black and metallic green as well as a contrasting light, creamy tan underwing with black spots and bands of orange-red. Females are the larger of the species, with broader and more rounded wings. On the hindwing of both sexes is a prominent black spot edged with orange-red.



Found in only few small, isolated pockets of vegetation in the state's southeast, the Bullock jewel butterfly is

listed as endangered in Queensland. Surveys have confirmed six populations of the species within a 5km radius around Goondiwindi and Leyburn. There are hopes that additional populations will be found further north after the relatively recent discovery of a population at Bendidee National Park.

The Bullock jewel's rarity is no doubt due to its particular and complex habitat requirements, and exacerbated by the historic clearing of this habitat for agriculture. It relies on the presence of one species of tree - its namesake - the bullock or buloke (*Allocasuarina luehmannii*) and piggy-backs on the activities of its neighbour insects, which include an undescribed ant, moth larvae and felt scale insects.

The Bullock jewel is particularly interested in older bullock individuals, which have holes bored in the upper branches from the larvae of the xylocorid moth. These mazes of squiggly tunnels are used as shelter by the Bullock caterpillars, which come out at night to feed on the tree's fresh growth.

The Bullock jewel has a mutual relationship with *Anonychomyrma* sp., the attendant ant of the eriococcid scale insects *Rhyzococcus* sp. Pregnant females of the Bullock jewel are thought to exclusively lay their eggs on branches buzzing with intense ant activity as the ants protect the butterfly's larvae from parasites and predators. In exchange, the ant is welcome to feed on a sugary, protein-rich secretion released from the glands on the

caterpillar's back. Additional information on the habitat and ecology of the Bullock jewel can be found in Sands and New (2002).

Given this close, mutual relationship, protection and recovery action for the butterfly depends not only on protecting remnant bullock trees but also preserving ant habitat. The Queensland Department of Environment recommends avoiding burning or removing undergrowth surrounding bullock trees, such as fallen logs and leaf litter, which the attendant ant uses for nesting. Additionally, as areas of the Darling Downs and surrounds remain unsurveyed for the species, you can also help its conservation by keeping an eye out for any fluttering within the bullock tree canopies and reporting any potential sightings to the Queensland Parks and Wildlife Service.



### Images/References

Butterfly images courtesy of the CSIRO. Banner image of *Allocasuarina* woodland west of Toowoomba.

Sands, D.P.A. and New, T.R. (2002). The Action Plan for Australian Butterflies. Environment Australia, Canberra. 378 pp. and CD.



# THE NATIONAL PARK EXPERIENCE

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

Tony O'Brien, NPAQ Vice President

The arrival of our first grandchild has added another dimension to the already dimension-crowded idea of National Parks in my psyche. How it changes the oft used phrase "for our children and our children's children" when you actually hold this child and think about taking him into the bush for the first time and exploring with him the wonders of the natural world. The smells, the sounds, cold winds, hot winds, cold water, still water, running water.

Creatures doing what they have done for millions of years. Very old rocks. Trees that evoke all kinds of responses through shape, age, size and texture.

His wonderful mother is Scottish and I hope that Angus has inherited some of the Scot of Jon Muir and is going to love wild places, doing wild things and wild ideas.

I hope that he experiences the travel dimension of National Parks where he can explore the vast array of landscapes and ecologies with an inquiring mind where there is always more to learn. Shared with people of different languages and cultures. Seen from great heights and through a scuba mask. Sleeping close to the Earth.

I hope that he can also experience the restfulness of solitude by walking alone through desert or forest or heath and being able to have his own thoughts in his own time. Maybe he will share some of this with me. Just as my mum loved a phone call from the top of the Blue Ridge Mountains in

Shenandoah National Park Virginia for her 80th birthday, he might come up with something which will be a special moment for me.

I hope that he forms deep friendships through shared experience of challenge and achievement, striving and failure, which will come his way if he embraces that dimension. Perhaps he will even find a soulmate with whom to share these wonders.

I know he would find some shared experience with others who are passionately protecting the tiny fraction of the planet which still remains largely untouched by human habitation, both in National Parks and in other privately conserved areas.

I hope that he may in time appreciate the historical social context of National Parks intended to provide a secure opportunity for all people, irrespective of their personal circumstances, to engage directly with the natural world and appreciate our place in this dynamic evolutionary system.

I think about how he might deal with the social and political challenges for National Parks where the sheer wonder of the personal experience in nature contrasts so sharply with the relentless march of human activity toward a world without wilderness.

Could we believe that he may not have to experience the dismay of spirit which comes when treasures of the natural world are degraded for entertainment experiences as if nature itself is not

able to provide all the enjoyment we could possibly imagine?

Perhaps his generation, who will have to deal with the consequences of accelerated climate change, will also be the ones to harness increased scientific knowledge to modify human activity in favour of a sustainable role for us on this planet.

Perhaps they will be looking at National Parks in a more fluid way where geopolitical boundaries become even more meaningless and there will be an understanding that the order of natural balances in air, water and earth systems must be respected.

I hope his National Park experiences are as fulfilling and enriching as mine have been.





## NPAQ Activities

### **Vegetation Management Group**

Saturday 24 October

Location: Brisbane area

Leaders: Angus McElnea, Russell Gardner (0429 854 446)

If you couldn't make it last month, this is another great opportunity to get involved with our great little restoration project at Boombana and Jollys Lookout, D'Aguilar National Park! Grass trees near Boombana pictured below (Paul Donatiu).



### **Birding at Fig Tree Pocket**

Sunday 25 October

Location: Fig Tree Pocket

Grading: Easy

Leader: Ian Peacock (3359 0318)

Fee: \$3 (members) \$10 (non-members)

A great morning birding around the Biambi Yamba Lagoon, with a short walk to the park beside the Brisbane River. Different birds should be sighted amongst the mangroves and woodlands.

Then down to the boat ramp in Mandalay Park for morning tea!

**Note that this is a different location to the site previously listed.**

### **Social Walk - Lunch on the Hop around Alderley**

Wednesday 28 October

Location: Grinstead Park near Shand Street, Alderley

Grading: Easy

Leader: Len & Laurelle Lowry (3355 7288)

Fee: \$3 (members) \$10 (non-members)

Brisbane has some great walking tracks embedded in the heart of suburbia. This walk will start at Alderley and follow the paved walking track to Crushers Sports Club.

After a leisurely lunch and chat at the Club, we'll retrace our steps back to the cars.

We may extend the walk towards Everton Park and observe the flying fox colony before making our way home (2.5km each way).

### **Clif Bell Memorial Picnic**

Sunday 1 November

Location: O'Shea's Crossing (also known as Schultz's Crossing), corner of Esk-Kilcoy Road and Cooeimbardi Road, Caboonbah.

Grading: Easy

Leader: Wendy Bell (3300 2473) and Jennifer Parker (3378 5211)

Fee: Free

This picnic celebrates our wonderful memories of Clif Bell, and will take place on the banks of the Brisbane River at O'Shea's Crossing at the Northern end of Wivenhoe Dam. This park provides a wide variety of activities including swimming, kayaking, fishing (permit required), birdwatching or just strolling along the riverbank (BBQs and facilities available).

### **Vegetation Management Group**

Saturday 21 November

Location: Brisbane area

Leaders: Angus McElnea, Russell Gardner (0429 854 446)

It's getting warmer now, and those weeds will really need a blast! Come and lend a hand at our great restoration project at Boombana and Jollys Lookout, D'Aguilar National Park!



### **Birding at Nudgee Waterhole Reserve and Nudgee Beach**

Sunday 22 November

Location: Nudgee Waterhole Reserve

Grading: Easy

Leader: Ian Peacock (3359 0318)

Fee: \$3 (members) \$10 (non-members)

Spend a lovely morning checking out the bird life at Nudgee Waterhole and beach. High tide is 7.28am allowing us to walk along the sand flats later in the morning to view the wader birds. Mangrove and salt marsh areas near Nudgee beach are captured in the photograph below (Paul Donatiu).



### **Social Walk along the Brisbane River**

Wednesday 25 November

Location: Northshore Riverside Park, Hamilton 3-6pm

Grading: Easy

Leader: Jennifer Parker

Fee: \$3 (members) \$10 (non-members)

A great ramble along the riverbank at Hamilton. Note that this walk is yet to be posted on the NPAQ website.

For more information, or to register for an activity, please go to the website - [www.npaq.org.au/events](http://www.npaq.org.au/events)

Other Images

Left - Red-browed Finch (Paul Donatiu).

Right - Rainbow lorikeet (Ryan Pockran).



## Upcoming Activities NPAQ Events

### **Walk the Bicentennial National Trail (Blackbutt to Killarney – 363km)**

Wednesday 30 December 2015  
(approx. 18 days)

### **Social Twilight Walk**

Sunday 9 January 2016

## Calendar Dates

### **ReefBlitz**

16-17 October  
<http://www.barrierreef.org/reefblitz>

### **Cairns Esplanade Bioblitz**

17 October  
<http://fc-test.ala.org.au/project/index/007c26c3-e5fe-43e5-9380-d67dbe268f8e>

### **Aussie Bird Count**

19-25 October  
<http://aussiebirdcount.org.au/>



### **National Water Week**

20-26th October  
<http://www.awa.asn.au/nationalwaterweek/>

### **World Fisheries Day**

21st November  
[http://www.gdrc.org/doyourbit/21\\_11-fisheries-day.html](http://www.gdrc.org/doyourbit/21_11-fisheries-day.html)



### **Kangaroo Island and the Murray River**

Wednesday 21 October

Location: Mt Coot-tha Botanic Gardens Auditorium from 7.45pm

An evening with Len and Laurelle Lowry on their most recent adventure to the mighty Murray River and fascinating Kangaroo Island. The Island hosts a national park, several conservation parks and in 2009 was declared part of Tourism Australia's National Landscapes program.



Images - Murray River reflections (top) and Cape de Couedic, Flinders Chase National Park, Kangaroo Island (Len Lowry).

### **NPAQ Quarterly Members Meeting**

Wednesday 18 November

Location: Mt Coot-tha Botanic Gardens Auditorium from 7.45pm

Guest speaker Tony O'Brien will discuss the rise of private conservation reserves across Australia.

## Vale

Our sincere condolences to the families of the members below who have recently passed away:

Jeanette Covacevich  
Barry Porter

## Book Review

### **Southern Cross Safari: Around Australia by bus and train**

By Bruce Gall  
Redgum Publishing / 516 pages / RRP \$35

This is the tale of a veritable odyssey, and a fascinating tale it is too. It's a substantial tome moreover, but in the end I returned my library book in favour of Gall's first venture into publishing. Put simply, this is the account of a journey round Australia with a focus on visiting national parks and reserves, staying in hostels or pubs and using public transport as much as possible (though he hired cars where essential, until guilt got the better of him!).

There are many threads to the book, one of which is his scrutiny of how parks are managed, especially with regard to track maintenance and interpretation. Gall has excellent credentials for such observations, having worked in such major parks as Kosciuszko and Sturt and having managed one of the world's great parks in Kakadu. Further, he has headed the park services of the ACT and Queensland. His observations on signage and track design and maintenance around the country (he is a Very Serious Walker) are sometimes complimentary, sometimes acerbic and always constructive. I hope park managers the country over study the book.

Another thread concerns the strengths – more often weaknesses – of the nation's train and bus systems to enable a traveller to get around the country and its reserves, a thread he often allows fellow-travellers, especially backpackers, to make observations on. Again, transport managers could well take note (especially in Tas!).

Yet another thread concerns the nature and vagaries of hostel accommodation, a topic most of us don't get a chance to explore, and gently astute observations on his temporary travelling companions abound.

It is whimsical, lively, astute, with flashes of humour – he's obviously an excellent informal interviewer and note-taker – and philosophy. My only concern is that he, as a Canberran, omitted any mention of Namadgi National Park or the Canberra Nature Park! This could be a minor classic – read it before the movie comes out though.

Ian Fraser - Naturalist, author & radio presenter

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Bathurst Harbour, Tasmania. Photo: Steven Nowakowski



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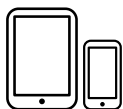
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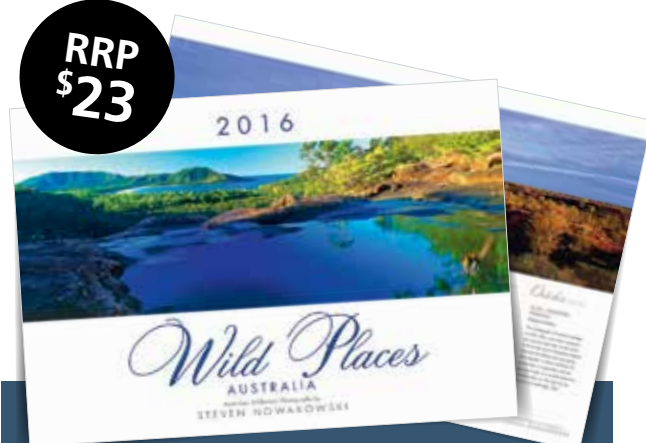
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