



Welcome to the April/May edition of **Protected**

Michelle Prior, NPAQ President

Protected symbolises both the evolution of NPAQ over its 85 year history, and the essence of its founding principles. Brought into being on the 15th April 1930 by two 'idealists of the obstinate kind', Romeo Lahey and Arthur Groom, NPAQ sought to fill an important gap - there being 'no body of public opinion...organised to combat the influences which were operating against the best interests of National Parks'.

So inspired by nature's beauty, NPAQ founding members wished to work towards protecting it. Around this time, community organisations were the primary drives for protected area proposals.

Today, there is a plethora of environmental, conservation volunteering, bushwalking, outdoor activities, nature experiences and travel organisations. World Conventions, national and state legislation, conservation science, and government departments staffed with dedicated professionals fulfil many of NPAQ early roles.

85 years down the track, NPAQ is as necessary today as it was at its inception. Influences that operate against the best interests of national parks remain.

NPAQ is proud to be the longest running NPA in Australia, and one of the first conservation organisations in Queensland. Educating people to the wonders of nature by experiencing the bush for themselves, remains as important as successfully lobbying for the creation and protection of national parks.

Because of people such as yourself, NPAQ has remained committed to the active pursuit of its founding principles. Happy birthday NPAQ!

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Paul Donatiu Anna Tran Jeannie Rice

Mission Statement

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

Contact Details

Unit 10/36 Finchley Street, Milton PO Box 1040, Milton QLD 4064

ABN: 60 206 792 095
Phone: (07) 3367 0878
Web: www.npaq.org.au
Email: admin@npaq.org.au

Advertising enquiries

admin@npaq.org.au

Cover - Part of the Amphitheatre, Carnarvon National Park (Paul Donatiu).



Like it or not, Buffel grass affects many national parks in Queensland. This article provides important background information on this exotic species, its impact and methods of control.

Buffel grass (*Cenchrus ciliaris*) is a grass native to semi-arid areas of Africa, the Middle East and southern Asia and is now also naturalised in many parts of Australia.

Buffel grass appears to have been first introduced into Australia inadvertently in the 1870s via seeds trapped in saddles and other imported equipment used with animals. However, it really made its presence felt from 1910 when it was first deliberately planted as a pasture grass. It quickly found favour with graziers in many lower rainfall areas and the first sowing in Queensland was at Cloncurry in 1926. It continues to be planted in some areas and is now found in all mainland states and territories with the exception of Victoria. However, partly because of its low frost tolerance, it remains relatively rare in southern coastal areas apart from a belt between Adelaide and Port Augusta. Overall, it is estimated that 25% of the continent is "highly suitable" for buffel grass and at least a further 15% fairly suitable, based on climate and soil types. The South Australian Buffel Grass Strategic Plan 2012-17 takes the view that it could become established over 60% of the mainland.

Buffel grass found favour with the

pastoral industry because it provides good forage in areas of lower precipitation (generally the 200-1000mm per annum range), usually producing at least twice the amount of edible material and in a shorter timeframe after rain than native grasses. In Central Australia, it has been planted primarily for soil stabilisation and dust control. Buffel grass can remain dormant during long drought periods then begin to regrow vigorously within a short time after about 25 mm or more of rain. It also has a deep root system and can access underground moisture more readily than most native grasses. The grass is a prolific producer of burrlike seeds which can be spread readily by wind, flowing water and animals into areas well beyond where the grass was sown originally. Unfortunately, these characteristics also make buffel grass a serious environmental weed. If it were not for its value to the pastoral industry, it would probably have been declared as such long ago (the South Australian government made such a declaration earlier this year).

The problems of buffel grass in the environment

Given the right conditions, buffel grass can grow aggressively, forming dense thickets and crowding out native vegetation. This may degrade not only the floristic composition of an area but also affect mammal, reptile and bird populations. Many native birds will not eat buffel grass seeds, and if native grass seeds are not available they may leave the infested area.

In Queensland, ecosystems that have been badly affected by buffel grass spread include poplar box, silver-leaved ironbark, mountain coolabah, brigalow and gidgee woodlands. It is also invading some mulga and dry rainforest communities where conditions are favourable.

A major problem associated with buffel grass is its interaction with fire. Its high biomass (generally 2 - 3 times that of native grasses) is likely to increase the intensity, frequency and extent of fires. However, because of its deep root system, buffel grass not only survives such fires but recovers rapidly. At the same time, there is a greater chance that woody vegetation such as shrubs or small trees will be killed by buffel-exacerbated fire than in native grassland free of this species. Studies have shown that the presence of woody ground cover inhibits the spread of buffel grass, particularly where the former comprises more than 30% of ground cover, so that if this cover is killed in an intense fire an area will be susceptible to an even higher degree of infestation. This positive feedback cycle makes buffel grass ever harder to eradicate after each successive fire event.

The ready dispersibility of buffel grass seeds has made roads and railways major instruments for carrying the grass into new areas. Long stretches of highways and railways in the north of South Australia, the south of the Northern Territory, and western Queensland are now lined with the



grass, in some cases large distances from where it had been introduced. This can result in new infestations becoming established in areas of conservation significance.

Methods for controlling and eradicating buffel grass

There is no one optimum method for controlling buffel grass. Often more than one method in combination will produce the best results. In all cases, cost and availability of resources, infestation size, and the ecosystem affected, are all important in determining what measures can be taken, or even whether it is feasible to attempt control at all. In high conservation value areas, and in places where buffel grass occurrence is only patchy, an attempt at eradication may be possible. Otherwise, the focus may need to be on control or attempting to prevent further spread.

For small to modest areas, herbicide treatment is the single most effective method of eradication, but it can be done only when the plant is actively growing, i.e. a short time after a rainfall event in the warmer months. Since this is usually unpredictable, resources that can be deployed at relatively short notice need to be available. One application of herbicide is rarely fully effective and follow-up, generally by spot-spraying, is needed.

Some hold the view that slashing of buffel grass during dry periods is desirable so that new growth is better exposed to herbicide application after it rains. Slashing also reduces the intensity of fires. However, it may be difficult to do slashing mechanically where there is a good scattering of native shrubs. In select situations whipper-snipping under shrubs may be feasible if labour is available.

There are mixed views over whether short-term (pulse) grazing should be considered as a tool to assist buffel grass eradication. Butler and Fairfax (2003) considered fire to be the worst agent in assisting buffel grass spread in conservation areas and advocated periodic, intense grazing to prevent seed formation and reduce fuel loads prior to fire danger periods. However, Eyre et al. (2009) found that increased grazing in poplar box woodlands ultimately led to increased buffel grass cover, probably because of the greater soil disturbance. This is also the position taken in the South Australian strategic plan. William and Collins (2004) reported mixed results from the destocking of Moorinya National Park; after 7 years there was an increase in plant and animal diversity but also greater buffel grass infestation.

The Butler study, which was carried out in Mazeppa National Park in Central Queensland (western Park boundary captured in banner-photo above), also concluded that secondary measures for fire prevention, such as diligent maintenance of fire breaks, should be undertaken.

In areas of very high conservation value, mechanical removal of individual plants can be considered, but it is obviously very labour-intensive so is probably feasible only near significant population centres where volunteer labour is onhand. The method has been used to good effect in parts of the Alice Springs Desert Park.

Buffel grass control in various jurisdictions

South Australia's *Buffel Grass Strategic Plan 2012-17* advocates that entry of buffel grass into SA be excluded and its movement prevented. However, this has not yet occurred, no doubt because of the political difficulties involved. The Plan divides the state into 3 zones. It aims to manage infestation in the worst affected zone (Zone 1 in the north-west), contain its spread in Zone 2 (the north-east) and attempt eradication from the



Buffel-affected woodland in Belmah National Reserve System property near Emerald (Paul Donatiu)



remainder. Large-scale mapping of buffel grass occurrences has already been done, but the Plan points out that detailed mapping is necessary prior to action being taken. Control will be by a variety of measures such as those cited above. It notes that spread along transport corridors has been very significant in SA, so the Plan advocates the provision of clean-down facilities for trucks and road-based machinery.

Queensland has a number of ecosystems under threat from buffel grass. The Queensland Parks and Wildlife Service have actively promoted awareness of, and control options for, buffel grass for many years - developing management guidelines in 2002, and an active research program with Central Queensland University. Control actions primarily using herbicide, but coupled with other actions such as fire control

line maintenance, are underway on various parks. In Taunton National Park west of Rockhampton, pulse grazing, herbicide and fire (both line maintenance and planned burns) are used to assist in the management of buffel and the protection and restoration of habitat for the endangered Bridled Nail-tailed Wallaby.

The Western Australian Department of Parks and Wildlife (DPAW) notes that buffel grass is widespread in the Kimberley, Pilbara and Midwest. Generally there appears to have been little attempt to control buffel grass so far, although there are infestations of manageable size in the Goldfields region which DPAW are encouraging local governments to control using herbicides. Main Roads would also do roadside spraying under this proposal.

The New South Wales National Parks

and Wildlife Service has started a formal process of buffel grass control in the northern plains area. Herbicide is being applied in late spring to early summer after rain.

The Northern Territory has operational projects at Uluru-Kata Tjuta National Park, Alice Springs Desert Park and a pilot eradication programme, using herbicides, in the small Rainbow Valley reserve in Central Australia. The latter has been very labour intensive but is reported to have produced good results in regard to regeneration of native vegetation.

In 2012, a proposal to list buffel as a key threatening process nationally was effectively subsumed by an existing listing for *novel biota* (including exotic grasses) that have an impact on biodiversity.

Overall, the picture is one of increased awareness of the threat that buffel grass poses to areas of conservation value and to the environment generally. Hopefully this will lead to increased containment and removal efforts, and ultimately to the political will to end its commercial use.

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What happens when cattle are allowed to graze unchecked under the guise of controlling exotics like buffel - NPAQ Principal Advocate Paul Donatiu at Forest Den National Park in November 2013 (Paul Donatiu)



In the last edition of **Protected**, I examined why grazing is one of the primary challenges currently faced by national parks in Queensland. At the time that edition went to print, NPAQ had done a number of title searches and found over 30 grazing leases covering almost 100,000 hectares on 11 national parks. With additional searches, this has grown to >60 leases covering almost 200,000 hectares on 20 national parks. This article names five of the national parks affected, some of the threatened species they protect and, where possible, whether grazing has an effect on these species.

Some of the grazing leases on national parks are due to expire this year. It is NPAQ's position that, with the exception of the ongoing grazing trials designed to protect the endangered Bridle Nail-tailed Wallaby on Taunton, that there should be no cattle grazing on Queensland national parks.

In this article, threatened species refers to species listed as endangered, vulnerable or near threatened in the *Queensland Nature Conservation Act* 1992. It should be noted that the plant and animal species lists on the Queensland Government's WildNet database, for each of these national parks, are only as good as the extent, duration and timing (seasonality) of survey effort on-Park.

There is little doubt that more conservation wonders are to be found on these Parks.

Bania National Park

12 leases covering 22,530ha (68% of Park). Leases issued from 1970 to 2006 for periods of 10-50 years.

Bania National Park, 100km west of Bundaberg and previously State Forest, was gazetted in August 2008 as part of the South East Queensland Forests Agreement process. At the time of gazettal, Bania carried grazing leases and many of these were allowed to continue. However, like the other Parks detailed below. Bania protects threatened plants and animals, and regional ecosystems that are endangered and of concern. The Management Statement (a scaled down version of national park management plans produced in the past) for Bania states that:

While timber harvesting has ceased, grazing and apiculture will continue over much of the park where this use is consistent with maintaining the area's nature conservation or cultural values.

This seems a contradiction of why Bania was declared a national park in the first instance. The Queensland Government's WildNet database lists six



Black-breasted Button-quail (Ross Monks)

threatened species for Bania including the Koala, Plumed Frogmouth and Glossy Black Cockatoo (all vulnerable).

Bulburin National Park

7 leases covering 8,900 ha (27% of Park). Leases issued from 1970 to 2006 for periods of 8-50 years.

Bulburin National Park, 120km south of Gladstone, provides important habitat for 22 listed threatened species. Amongst these, the vulnerable Black-breasted Button-quail (Turnix melanogaster) is affected by impacts resulting from the activities of domestic stock including the compaction of soil, destruction of sheltered sites by browsing and establishment of cattle camps. The recovery plan for this species notes that in the Fitzroy basin.....long-lasting drought and cattle stocking led to the disappearance of the species from scrubs in the region. Bulburin also protects the only known population of the endangered Bulburin nut tree (Macadamia jansenii).

Expedition National Park

2 leases covering 45,000 ha (41% of Park). Leases issued in 1987 and 1992 for 30 and 20 years respectively (the latter extended by 4yrs).

Expedition National Park, 90km northwest of Taroom, protects large stands of vegetation communities found in the Brigalow Belt, a bioregion in central Queensland with only 2% national park coverage (compared with 5% Queensland currently in national park). The Park is home to 16 threatened species. One of these, the vulnerable Collared Delma (*Delma*



torquata) is known to be affected by overgrazing, which compacts soil, making it very difficult for this species to find suitable shelter (more about this species on page 12). The Park also provides habitat for the vulnerable Dunmall's snake (Furina dunmall) which is threatened by extensive clearing of habitat for pasture improvement and extensive overgrazing of habitat by domestic stock.

Kroombit Tops National Park

4 leases covering 12,000 ha (25% of Park). Leases issued from 1986 to 2006 for periods of 10-30 years.

Kroombit lies in a zone where plants and animals can often be found at either their northern or southern range limits in temperate habitats at altitude (800-940m above sea level). Partly for this reason, the Park is home to 20 listed threatened species. One of these - the endangered Kroombit tinkerfrog (Taudactylus pleione) - is likely to be susceptible to trampling and increased nutrient loads resulting from grazing in, and upstream of, habitat areas. Another - the vulnerable Squatter Pigeon (Geophaps scripta scripta) - is threatened by loss and fragmentation of habitat due to clearing for agriculture and the degradation of habitat by overgrazing by cattle and sheep.

Nour Nour National Park

3 leases covering 3,771 ha (75% of Park). Leases issued from 1972 to 2006 for periods of 15-50 years.

Nour Nour National Park, west of Bundaberg, was also a product of the South East Queensland Forests Agreement process. There is one endangered and nine of concern regional ecosystems represented in the Park. Two of these ecosystems were not represented in national parks or protected areas until this Park was created. One of the actions in the Management Statement (2013) for this Park states:

Monitor and manage impacts from approved grazing activities on the park in accordance with the conditions stated in the relevant grazing authority.

Why was approval given? Even a quick appraisal of the literature provides numerous reasons why cattle should not be allowed on Park. Not least of these are that grazing inevitably leads to a reduction in the diversity of native plants and animals, that it does not promote regeneration of native plants (like fire does), that it can introduce new and spread existing weeds, and that cattle damage sensitive riparian and wetland areas.

Postscript

As this edition of **Protected** goes to print, NPAQ is seeking advice on one

of the first of these - a lease covering 172 hectares in Peak Range National Park. This lease was due to expire on 30th April 2014, but was extended by the Newman LNP Government until 30th April 2015. NPAQ also notes that the Management Statements prepared for protected areas in Queensland designate the electorate that the respective national park falls within. Many of the national parks currently grazed fall within the Callide electorate.

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Squatter pigeons (Geoff Walker)





Rearing high over the surrounding plains of Queensland's Brigalow Belt, the Carnarvon Range, 240kms north of Roma in Central Queensland, sits astride the high country of the Dividing Range. A vast sandstone plateau, riven by water into gorges, it has provided a refuge for people since time immemorial. After the miles of dusty flat brown landscape, cleared of trees under the terms imposed by Governments for pastoral leases, the Carnarvon Range rises majestic and mysterious. We creep up to it, dwarfed on the plain. This is a place with a long and sometimes terrible history; a place that does not impart its secrets readily to its 65,000 annual visitors.

A lot of the Park's mystique comes from its geology and hydrology. Different layers of stone, laid down over millennia, create Carnarvon's unusual structure. Stone from the Bowen Basin sedimentary formation forms a layer that is impermeable and provides a base for the Creek. The sandstone of the cliffs was laid down eons later as part of the Surat Basin. This is overlaid by precipice sandstone which erodes vertically as well as horizontally, providing the dramatic cliffs for the Gorge. This porous sandstone acts as a portal for water to enter the Great Artesian Basin. Overlaying basalt from volcanoes present 35 million years ago, provides a cap up to 300 metres thick that erodes very slowly, protecting the sandstone that would otherwise erode to ground level. Where faults in the basalt occur, water and wind erosion

drives great clefts into the precipice sandstone forming the gorges and their towering cliffs, which sometimes rise to more than 200 metres.

The Park provides the source for five major river systems - the Comet, Dawson, Maranoa, Nogoa and Warrego. Water, topography and geology conspire to create a unique environment, a vast time capsule where relics of Australia's rainforest past linger on. Carnarvon Creek's 30km sinuous journey through the Gorge is fed by numerous springs and tributaries which drain from narrow side chasms, dark and choked with mosses and ferns. Casuarinas and Cabbage Tree Palms line sections of the creek, some being the tallest examples of their species.

The cycad (*Macrozamia moorel*) and the Carnarvon Fan Palm (*Livistonia nitida*) are Carnarvon icons. Both are endemic to Central Queensland. The environment of the Gorge and its chasms has protected these and other species, such as the isolated colony of King Ferns (*Angiopteris evecta*) in Ward's Canyon.

The Carnarvon range is rich in fauna as well, including platypus and echidna, and five of Australia's six species of gliders. Greater, Yellow-bellied, Squirrel, Sugar and Feather-Tailed Gliders can be found on guided night spotlighting tours, their presence betrayed by the scratch marks they leave on tree trunks. Macropods include the Eastern Grey kangaroo, wallabies (pretty-faced, swamp, red-necked), euros and the

Rufous bettong. A long list of fish, long-finned eels, 22 species of amphibians including the Tusked and Eastern Sedge frogs, geckoes and skinks are all part of this zoological epicentre. Then there are the birds - 210 species recorded to date, as well as over 20 species of bats.

Camarvon has a very long history of indigenous occupation, with the Bidjara and Karingbal people having close ties during the period prior to colonisation. Excavation at Kenniff Cave (named for a notorious cattle duffer and convicted murderer) on Mount Moffatt shows that a long utilisation of silcrete for the manufacture of tools, scrapers and cutting blades dating back more than 19,000 years. The Park has wonderful examples of stencil rock art and carvings which can be viewed at the Art Gallery:

I'm overwhelmed as I stand before a wall of stencilled hands, many of them children's, knowing that they date back thousands of years. These distant ochre messages from the past - with their repeatedly themes of boomerangs, emus, kangaroos, and body parts... seems as fresh today as the day they were made.

Candid Baker

Settlement of the area followed exploration by Leichardt (1872) and Mitchell (1874), with the latter imposing the name 'Carnarvon' after a mountain in Wales.



When you visit Carnarvon, the ultimate attraction is the Gorge itself. The hardest part of the Gorge Walk is getting past the tributary gorges and canyons, each with its strikingly different vegetation and structure. Some, like the Moss Garden, have trails which pass through tall open eucalypt forest before entering patches of remnant rainforest sheltering below towering cliffs. The early sections of the Gorge, served by an attractive and well maintained walking path which crosses the creek many times leading up to the Art Gallery, are well known to visitors who come to the Park, as are the extensive views of the range and surrounding plains from the heights of Boolimba Bluff. But Carnarvon is far more than its Gorge.



Part of the Art Gallery at Camarvon National Park (Paul Donatiu)

The original 65,000 hectare National Park was gazetted in 1932, but since then six other sections have been added. These are - Goodlife, Salvator Rossi, Ka Ka Mundi, Buckland Tableland, Mount Moffatt, and Moolayember, bringing the expanded Park to 298,000 hectares. Whilst this sounds impressive, it should be noted that the Southern Brigalow Belt Bioregion, an area described by as a biodiversity hot spot, has a mere 2.2% in protected areas. Camarvon makes up more than half of this figure.

The difficulties associated with accessing these areas means that much of what they have to offer is inaccessible. This is not necessarily a bad thing as the area is rich with Indigenous sacred sites, rock art galleries and burial places, and its vast size makes proper conservation unfeasible. The mysteries of these places will, perhaps, be one day thoroughly researched, properly conserved and documented with the involvement and consent of the traditional owners. Determined visitors to Mount Moffatt can visit the towering columns and swirling sandstone sculptures that nature has fashioned.

In recent years, the national park has been complemented by Bush Heritage's purchase of the 59,000 hectare Camarvon Station. It's mountain-protected plains nestle within the sweep of the Camarvon Range, filling about half of the southern valley. This property extends protection to fertile valleys and grasslands and

buffers the park.

First people involvement in Carnarvon continues today. Indigenous Ranger Fred Conway has been recognised as one of this year's Queensland Greats. Fred is an Indigenous Elder and tireless advocate for protecting Indigenous cultural sites, particularly the rock art sites in Carnarvon National Park in central Queensland. A ranger with the Queensland Parks and Wildlife Service, Fred has spent the majority of his life helping people understand Aboriginal history and culture, and to respect and protect rock art sites.

Fred has also been instrumental in developing and ensuring the success of a unique program for Queensland—the Seasonal Indigenous Ranger program. This program trains young Indigenous people and allows them to return to country, gain employment and have a meaningful involvement in the management of their traditional lands. With the program's success, damage to rock art has declined as visitors understand and respect the national park's cultural history.

Accommodation at the Park is limited. There is camping on-site which is at the mouth of the Gorge, but this is only open during the Queensland school holidays. Carnarvon Gorge Wilderness Lodge (info@carnarvon-gorge.com) and Takarakka Camping Lodge (www. takarakka.com.au) provide lodge-style accommodation, cabins, safari-tents, caravan spaces and camping. March to October is the peak season.

FEATURED WALK Tracks near the Palmerston Highway, Far North Queensland A northern legacy of one man's dream Peter Stanton, NPAQ Member

North Johnstone lookout track

Distance: 4.4km return

Altitude Difference: 320m fall

over 2.2km

Suitable for fit walkers, families with teenagers.

Romeo Lahey had a dream for Lamington National Park of a high quality graded walking track system that provided easy access to its natural wonders for people of all ages. A major push during the 1930's saw the design and construction of most of the significant tracks in the park. Their survival today, after 70 years of heavy use and the onslaught of run-off from heavy rain events, stands as testament to Lahey's engineering design skills, and the quality of construction. Tracks of a similar standard were eventually extended to some other parks in Southeast Queensland, such as the Bunya Mountains.

Far North Queensland was largely by-passed by this activity. Its parks, with the exception of Bellenden Ker National Park, were small and few in number. Access points to the large park were few and the granite derived soils and topography did not lend themselves easily to high quality track construction. Attention was focused on the basalt landscape of Palmerston National Park, the main purpose of which was protection of the scenic features associated with

the narrow winding forest-shadowed Palmerston Highway. The park was greatly expanded in the 1980's, and today is part of the 79,500ha Wooroonooran National Park (which also includes Bellenden Ker).

Within Wooroonooran is some of Queensland's grandest scenery, mostly hidden and largely inaccessible to all but the hardiest bushwalkers. Here you can find the upper reaches of four of Queensland's largest perennial streams, its highest mountains, and some of its most beautiful landscapes. To the casual visitor who wants to gain some appreciation of the vastness and inspiring beauty of this wilderness, the only option is to walk the descent from Crawford's Lookout to the banks of the North Johnstone River via a graded walking track.

The track begins at Crawford's Lookout on the northern side of the Palmerston Highway, 33km from Innisfail. It descends by a graded walking track a total of 320m in 2.2km to the bank of the North Johnstone River, and returns by the same route. At 1.5km it divides, with a track breaking off sharply to the right leading to the river, and the other ending, after 250m, at the North Johnstone Lookout.

It provides an opportunity to experience one of the few remaining virgin stands of endangered Complex Mesophyll Vine Forest. According to the renowned rainforest ecologist, the late Geoff Tracey, this area represents the optimum development of rainforest in Australia under the most favourable conditions of climate and soil on the tropical humid lowlands.



North Johnstone River at track terminus (Peter Stanton)



Unfortunately, most of the rainforest on the slopes above the North Johnstone Lookout has been smashed by the devastating winds of three severe tropical cyclones - Winifred (1986), Larry (2006) and Yasi (2011). The legacy of those storms has been an open canopy and trees with many broken large branches. Many of these trees however, are of impressive stature with trunk diameters of 2m or more, and canopy heights of 45-55m.

The branch of the track that descends to the river travels another 700m via a series of aluminum and concrete steps, which provide a challenge for the less fit on the return journey. It traverses forest little affected by cyclones and of high aesthetic quality, with an open understory under tall, sometimes spectacularly buttressed trees. Above the uneven canopy, emergent's rise 60m and more. The track reaches the river at the southern extremity of a U-shaped bend, where large trees provide shade to the margins of its 100m wide rocky bed.

This is the only access point along the 25km length of the gorge of the North Johnstone River, the track reaching the river about a kilometre downstream from where it breaks free of spectacular sheer cliffs that rise up to 350m from the river bed. At this point, the nature of the river changes as it breaks free of its rocky base along a line of cataracts

suddenly stilled by a placid wide stream extending as far to the north as the eye can follow.

The grandeur of the river and its enclosing mountains can be best appreciated from the North Johnstone Lookout. Below it, Douglas Creek joins the river, approaching it at a sharp angle, and separated from it along its last 150m by a narrow knife-like 120m tall basalt ridge.

One may wish to explore the river, and that could easily occupy the bounds of a wonderful day, but a casual return trip would not occupy more than a few hours, leaving time to explore some or all of the remaining track system accessible from the highway.

There was, until recently, an interconnected system that explored some of the features of Henrietta and Douglas Creeks which run, for much of their length, parallel to the highway. The widening and realignment of this road, completed in the 1980's, truncated the system in one location, and over 4km of track from the North Johnstone Lookout back to the highway at the Wallicher Falls entrance has been permanently closed. The main series of interconnected tracks can now be accessed at the Wallicher Falls entrance about 2km west along the highway from Crawford's Lookout, a further 2km to Gooligan Creek picnic area, with the main and most central

entrance being another 800m along the highway at the Henrietta Creek camping area. This is also the entry point for a 6km long circuit which provides access to Nandroya Falls on Douglas Creek, which tumbles 50m over a basalt wall, and some further small falls downstream from there.

More Information: http://www.nprsr.qld.gov.au/ parks/great-walks-sunshine-coast/



Nandroya Falls (Paul Donatiu)

WILDLIFE FEATURE

Collared Delma

Michelle Shaul, Contributor

If among the leaf litter of SEQ's eucalypt woodlands you stumble upon a small curious-looking creature that looks like something between a large worm and a small snake, you may have found a Collared Delma.

Growing to around 15 cm and weighing two grams, the Collared Delma (*Delma torquata*) is the smallest of the legless lizards. They have a distinctive black head with golden bands that contrast with the reddish-brown colouring of the back and the bluish-grey flush to their belly and tail.

The Delma's evolutionary history is evident in the two small scaly hind limb flaps, leftover from it's legged ancestors. Like other legless lizards, the Collared Delma's tail is twice as long as it's body and can be regrown if cut or cast-off. It has a short, blunt snout and external ear openings.

The Collared Delma might be considered somewhat of a hermit; they live long, solitary lives (around 5 years) and tend to stay burrowed and safe in the shelter of leaf litter, soil cracks or under a favoured rock or log. You will most likely see them wriggling about during the day or in warm weather, which is when they are most active. While this species of Delma is very selective about where it chooses to make its home it's certainly not a fussy eater, feasting on a range of insects, spiders, termites and ant eggs – with a

What is the difference between a legless lizard and snake?

There are three key identifiers that will let you know whether you are looking at a snake or a legless lizard: their eyes, ears and tongue.

- 1. Unlike snakes with their iconic forked tongues, legless lizards have a fleshy tongue.
- 2. Lizards have moveable eyelids, whereas snakes have transparent scales that cover their eyes.
- 3. While over time snakes have lost their external ears, all species of legless lizard have external ear openings.

particular gusto for small roaches.

In Southeast Queensland, the Collared Delma's range is largely concentrated in Brisbane's western suburbs of Kenmore, Pinjarra Hills, Anstead, Mt Crosby, Lake Manchester and Karana Downs. However, it has been found as far north as the Blackdown Tablelands and Expedition National

Parks in central Qld and as far south as the NSW border. Similar to many other native species, habitat loss and degradation threatens the Collared Delma's population base, which is scattered and small in number. The species is listed as vulnerable both in Queensland and nationally.

Given the Collared Delma's specific habitat requirements, it is acutely sensitive to disturbance. The species favours eucalypt woodlands and open forest where rocks, leaf litter, logs, bark, and other woody debris are plentiful for shelter. This type of microhabitat is vulnerable to degradation by compaction and overgrazing from cattle, poor fire regimes and invasive weed species. As a result, even those Collared Delmas that have made their homes in protected areas such as Expedition National Park are still at risk while cattle grazing is permitted within them.



Collared Delma (Robert Ashdown - www.robertashdown.com/blog)



Growing up

I grew up in Cronulla, Sydney. As a child and teenager I often visited Royal National Park (which you could see from our street across Burraneer Bay and Port Hacking) for family picnics at one of the picnic areas along Waterfall Creek, hiking from Bundeena to Marley, and riding my bike through the National Park. My grandparents had a onebedroom cottage on the edge of the bush at Leura in the Blue Mountains and several times a year I would be there. I liked to walk out to some of the lookouts along the cliff edge with the Jamison Valley below. While I enjoyed the beach and the bush I did not yet realize their significance to me. Life got busy with other things.

Rugged coastline and wind-swept heath at Royal National Park (Paul Donatiu)

An odd thing happened ... twice. When I was 31 years old my wife Bev and I, and our two small children, moved from our life in Canberra to Pasadena California, so I could study for a masters degree. On the way to the U.S. we stopped over in Hawaii for a week, which could be done without extra airfare cost – a few days each on Oahu, and the island of Hawaii. We stayed at Volcano House, on the rim of the Kilauea caldera. I was up close and personal with an active volcano, and with scenery the likes of which I had never seen. We flew on to Los Angeles and became busy, getting on with what we had come to do.

But then another odd thing happened, totally unexpected. Whilst our agenda for being in Pasadena was going well, after a few months I became homesick.....desperately homesick for Australia – the gum trees, the beaches, the bush, the mountains. Our agenda for being in Pasadena was going well and yet. We visited many of the National Parks in the western half of the U.S. especially in California – twice to Yosemite. Two years later we were back in Australia and I was putting my study to use.

But then unexpectedly, I became homesick, desperately homesick, for the U.S./ California – the desert, the mountains, the National Parks, the trees, the beaches.

The problem

Life was busy. We had moved to Melbourne. I wanted to be more out there – in our National Parks – the bush, the mountains, the landscape, the trees, the beaches. But, how to do that? It did not quite get to the happening page very much.

The solution

After a few years in Melbourne I joined the Victorian National Parks Association and, at last, started bushwalking regularly. That is the best way to experience our National Parks – onsite up close and personal, alive and open to all that is there.

How to do it? Get it in the diary - then that day, or weekend, was booked. That worked. I had a prior commitment.

So, why do I value our National Parks? Because I love being there. I feel better for being there. I miss being there when for a while I am not there. That is how it is.

Postscript

When we moved to Brisbane I joined the National Parks Association of Queensland. To any of you who are busy, getting it in the diary is the way to actually experience our National Parks. And along the way I have come to understand that there are also some other good reasons for why we have National Parks.

Jim Stebbins became an Honorary Life Member with NPAQ in 2014, and was the Association's Honorary Secretary from 2005 to 2013. Jim is known for his great heart, passion for, and unfailing commitment to national parks.



WHAT'S

NPAQ Activities

Mountain Bike Ride

Saturday 9 May

Location: Sunshine Coast hinterland Grading: Intermediate, 15km Leaders: Athol and Maria Lester

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

A relatively relaxed bike ride through some amazing back roads of Benarkin and Googa State Forests. The ride covers part of the Brisbane Valley Rail Trail from Benarkin to Blackbutt along forestry tracks, then returning to Benarkin. Reliable mountain bike required. Great coffee and wildlife stops planned.

Vegetation **Management Group**

Saturday 23 May

Location: Brisbane area

Leaders: Angus McElnea, Russell Gardner Tackle lantana with a great revegetation program at Boombana/Jollys Lookout, D'Aguilar National Park.

Mount Tibberoowuccum. **Trachyte Track and** Swim

Saturday 23 May

Location: Sunshine Coast hinterland Grading: Intermediate, 8.6km

Leader: Mary Anne Ryan

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

Climb Mt Tibberoowuccum for excellent views and follow the Trachyte Track and the Tibbrogargan Circuit before cooling off at

the coast.

Birding at Dan Stiller Reserve

Sunday 24 May

Location: Forestdale, Brisbane

Grading: Easy

Leader: Geraldine Buchanan

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

This Reserve has so much to offer birdwatchers with 43 species seen and

heard previously.

Boombana to Jollys Lookout Walk

Wednesday 27 May Location: Brisbane area Grading: Easy, 4km

Leader: Len and Laurelle Lowry Fee: \$3 (members), \$10 (non-members)

This is a great little walk down the Thylogale track with the opportunity to extend the walk by incorporating the Egernia Circuit for the

Cunninghams Gap Challenge

Sunday 7 June

Location: Main Range National Park Grading: Intermediate/challenging, 15km

Leader: Athol Lester

Fee: NPAQ Fundraising Event - donation

required

Come and experience the heart stopping excitement of following in the footsteps of one of SEQs earliest European explorers. Allan Cunningham set out to explore the area to the west of Moreton Bay in 1827, crossing to the west of the Great Dividing Range from the Hunter Region and travelling north. In June 1827, he climbed to the top of Mount Dumaresq and after wrote in his diary that this lush area was ideal for settlement. Cunningham also climbed from his camp near Swanfels to the lateral ridge which extends west from near Spicers Peak and from here confirmed his position by taking bearings on Flinders Peak and Mt Warning. In the process, he discovered both Cunninghams and Spicers Gaps.

By following his footsteps we can clearly see that Cunningham correctly recorded both Gaps.

Vegetation Management Group

Saturday 20 June

Location: Brisbane area Leaders: Angus McElnea, Russell Gardner Tackle even more lantana with a great

revegetation program at Boombana/Jollys Lookout, D'Aguilar National Park!

Birding at Lake Samsonvale

Sunday 21 June

Location: Bullocky Rest, NW Brisbane

Grading: Easy

Leader: Jocelyn Dixon

Fee: \$3 (members), \$10 (non-members) This wonderful and peaceful lake is a gem

for birdwatchers.

Eye on Indooroopilly Heritage Trail

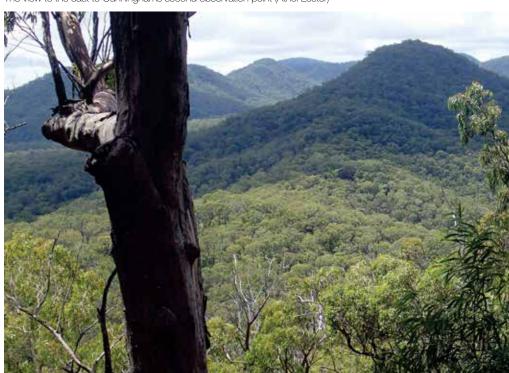
Wednesday 24 June Location: Brisbane area Grading: Easy, 2.7km Leader: Jennifer Parker

Fee: \$3 (members), \$10 (non-members) This Trail takes you to sites and events that have shaped Indooroopilly's history, including early European settlement; the Albert and Walter Taylor Bridges; wartime activity during WWII and the historic commercial centre along Station Road.

For more information, or to register for an activity, please go to the website -

www.npaq.org.au/events

The view to the east to Cunninghams second observation point (Athol Lester)



Upcoming Activities NPAQ Events

Vegetation **Management Group**

Saturday 18 July

Birding at Tingalpa Reservoir

Sunday 19 July

Vegetation **Management Group**

Saturday 22 August

Mount Maroon

Saturday 29 August

Extended Bird **Activity to Capricorn** Coast

Monday 31 August to Saturday 12 September

Vegetation Management Group

Saturday 19 September

Birding at Oxley **Creek Common**

Sunday 20 September



Project Wild Thing Saturday 16 May

Location: NPAQ Office, 36 Finchley Street Milton from 7.30pm (donations welcome)

This social evening will feature a screening of the film Project Wild Thing and discussion over cheese and nibbles (BYO) about encouraging children to experience the

NPAQ Quarterly **Member Meeting**

Wednesday 20 May

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

Structured meetings provide members with a quarterly update on the Association. Discussions can involve matters of strategic direction and member feedback.

Presentation for May: Activities Committee Convenor, Athol Lester, will provide an entertaining talk on the recent Camel Trek in the Northern Flingers Ranges.

Royal Flying Doctor Service

Wednesday 17 June

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

A social and topics of interest evening with Janine Gardner covering the history of the Royal Flying Doctor Service and how the organisation delivers 24-hour emergency services and health care within the Qld community.

Kaputar and the Warrumbungles

Wednesday 15 July

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

A social and topics of interest evening with NPAQ member Stewart Parker who will speak about his 2011 adventure to Kaputar and the Warrumbungles.

Calendar Dates

International Migratory Bird Day

9 May

www.birdday.org

Significant, Veteran and Scar Tree workshop

www.theca.asn.au or 07 3878 5088

World Environment Day

www.unep.org/wed

World Oceans Day

www.un.org/en/events/oceansday/

Letter to the **Editor**

I would like to add my perspective to the issue of grazing in our National Parks. I live next to Warro National Park in Central Queensland

When we moved here in early 1991, Warro was still a State Forest, with the grazing lease being held by a local family. We used to wonder even then why there didn't seem to be any control over stocking rates as the area was constantly overgrazed. Wandering hungry cattle from the lease were (and still are) a regular problem for neighbours and local road users.

There was talk of the Forest becoming a national park and finally, in the mid 2000's, it became Warro National Park. To our surprise though, the leaseholder was given a new lease which was to expire late last

About the same time, we sold all our cattle due to my partner's serious illness. We were then unexpectedly able to watch our property recover from a long history of grazing. It has been an amazing change to witness. From the tops of the trees to the remarkable world in the grasses and shrubs, and at every level in between, there is now an abundance of life... such a variety of birds, insects, reptiles, animals, all that we rarely saw while we had cattle.

At the same time, Warro has been grazed constantly. This has allowed some serious erosion to develop, weeds to take over, especially lantana. What grasses and understory there is, is thin, weedy, and open with little habitat for any native wildlife. Even with the good summer rains we have had, there are still patches of bare soil which erode easily.

Fast forward to today... The lease that expired last year was replaced by a "temporary" lease which seems to have no term so the grazing continues. And if you were to stand on the fenceline with me between Warro and our property, you'd be forgiven for thinking Warro looked like a poorly managed cattle paddock and our place like the Park. It's very clear to me now that cattle have no place in any National Park for any reason.

Ariel Chaster



