

protected

Magazine of National Parks Association of Queensland

COOLOOLA NATIONAL PARK GREAT WALK DEVELOPMENT PROPOSAL

PLUS

INTEGRATING CLIMATE and BIODIVERSITY
ACTION

ALSO FEATURED

There's hope - IPCC report

Impacts of Off-Road Vehicles on Beaches

Agnes Water 1770 outrage

Springbrook National Park

Spotted Quoll



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The National Parks Association of Queensland (NPAQ) promotes the preservation, expansion, good management and presentation of National Parks, and supports nature conservation in Queensland.

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Images

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Banner Photo (left): Noosa Beach (Paul Donatui)

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In this issue

- 4** From the President
- 6** Cooloola National Park Great Walk Development proposal
- 8** Integrating Climate and Biodiversity Action
- 10** Agnes Water 1770 Outrage - They Come and Destroy What They Come to Enjoy
- 11** The Impacts of Off-Road Vehicles on Beaches
- 12** There's Hope - IPCC report
- 14** Park in Focus
- 15** Australia's Forgotten Predator - The Amazing Spotted Quoll
- 16** National Park Experience
- 17** Ranger of the Month



6

Cooloola great walk

Photo: Greg Wood



10

Joseph Banks Conservation Park

Photo: Jane Gray



15

Spotted Quoll

Photo: Paul Revie

FROM THE PRESIDENT



Susanne Cooper
President, National Parks Association of Queensland (NPAQ)

Over the past year, NPAQ and many other environment organisations in Queensland have been focussed for an increased percentage of our state to be in Protected Areas (PAs); National Park, Conservation Park, Special Wildlife Reserves, which is currently at a meagre 8% - the lowest of any state in Australia.

But it's often enlightening to look internationally at trends and major initiatives to understand the broader global context and what's happening overseas for protected areas. There is currently a very interesting initiative which could have flow-on effects for our Protected Area estate.

The '30 by 30' initiative has growing interest and momentum. What is this? It is to have at least 30% of the planet – both land and sea areas - protected (as national parks or similar) by 2030. This would be a major advance from the current global levels, which are 16% of land and 7.5% of marine areas.

This ambitious global target aims to halt the accelerating loss of species and protect vital ecosystems that underpin our economic security.

In June 2021, all members of the



G7, including some of the world's richest countries, signed a global compact for nature which included these targets. This included the UK, Germany, France, UK, USA, Canada and Japan. Australia supports this target, though we haven't yet made the commitment to protecting 30% at home. If this were the case, it would clearly add impetus and momentum to Queensland's strategy to increase protected areas from their current low level.

What has triggered this initiative? It's the recognition that biodiversity loss is one of the top three main threats to humanity. Any further loss of natural habitat and species will cause extensive and costly flooding, climate change, disease emergence and ill-health, clean water shortages, loss of crop pollination, decline in agricultural productivity and many other negative effects. It's the consequence of degrading our natural infrastructure that supports our economy and well-being.

The top three priorities and their implications were stated by the World Economic Forum (WEF) – hardly an activist 'green' lobby group! The WEF sees action on this issue as an international priority.

Clearly achieving the 30 by 30 goal comes with a cost, although an economic analysis done by over 100 leading economists and scientists indicates that the multiple economic benefits arising from an increase in PAs will vastly outweigh the costs.

These targets are included in the United Nation's Convention of Biological Diversity (UNCBD), which is finalising an updated 10 year plan early in 2022. The 30% target is almost a doubling of the present target of 17%.

Although these targets may seem ambitious, one of the world's most respected biologists, E.O. Wilson, has proposed we need 50% of the world set aside to preserve nature.

This initiative represents a change in the dynamics and priorities internationally on the world's nature and biodiversity. Let's hope the 30 x 30 is cemented into the next UNCBD, and Australia (including Queensland!) is a proactive and supportive participant. And that support leads to decisive implementation – its time for action.



Photos Banner & Inline : Various (Samantha Smith)

SHARE YOUR PHOTOS

Do you have photos from a visit to a national park or protected area? Send them to admin@npa.org.au for your chance to feature in the next edition of NPAQ's **PROTECTED** Magazine! The best photos will also be featured on NPAQ social media channels and go in the draw to win some awesome NPAQ prizes.



Tawany Frogmouth (*Podargus strigoides*)
Andrew Thompson



Magnificent bolus spider (*Ordigarius magnificus*)
Samantha Smith



Early Purple Orchid (*Orchis mascula*)
Paul Donatiu



Galah (*Ordigarius magnificus*)
Adelaide Burstow

COOLOOLA NATIONAL PARK GREAT WALK DEVELOPMENT

- Greg Wood

Greg Wood has lived in Rainbow Beach for most of the past 40 years. He is in regular contact with residents of Boreen Point and the Northern Sunshine Coast with respect to the current proposal for private development along the Cooloola National Park Great Walk.

The proposal for private development concessions along the Cooloola National Park Great Walk is generating considerable agitation within the adjacent local communities. Negative attitudes toward it are being widely and openly expressed. Such antagonism extends into a good proportion of the business sector.

Whilst local complaint most often doesn't explicitly note biodiversity and the Cardinal Principle as points of objection, its essence certainly does connect to those core matters. Three distinct matters drive the majority of local discontent toward the development proposition.

Destruction of site values and amenity

Two of the proposed sites, Lake Poona (Site P) and the Noosa River (Site N), are subject to development that is plainly inappropriate to the values on and surrounding those sites. Rainbow Beach locals, amongst many others, are simply horrified at the prospect of cabin development at Lake Poona. Without any formal ecological training their direct experience reliably informs them that the place is very special and that 38 sq. metre cabins with en-suites, indeed ten of them,

are neither a genuine part of that special experience, nor a vehicle for its preservation.

Very significantly D.E.S. know this too. The Site Selection History report submitted with their E.P.B.C. referral identifies Lake Poona as the only perched lake on the mainland. A separate D.E.S. report on Coastal Non-floodplain Sand Lakes lists 'Tourism and Recreation' as a major threat to their integrity.

Even so D.E.S. is now advocating what amounts to a private hotel development on the verge of this nationally, if not internationally unique sand lake. Figure that one out.

Within this perverse totality emerge a myriad of confronting elements. The following few examples are drawn from a very long list.

The site is under heavy canopy so the proposed solar power supply cannot function. The 'back-up' generators will, by default, be routinely required. The network of large blackbutt limbs looming over the cabin sites poses massive liability risk. Minimal clearing is asserted. Yeah, ok.



The project managers allege the site cannot be seen from the lake. Curiously though the lake can be clearly from the cabin sites. Putting aside the issue of cabin visibility, what prevents cabin users from seeking direct access to the water stimulated by their view of its close proximity? How then will emerging trail paths not amplify that draw factor? Site 'N' on the Noosa River presents an equivalently disturbing scenario. The selected development site is the one that the D.E.S. contracted ecological and wetland experts deemed to be of most concern regarding impact to significant values. Seemingly oblivious to this advice, the D.E.S. Site Selection History report declares this site choice to be made on 'scenic value'. This very distinctly illustrates the framework of priorities active within this project. This horror selection is wedged upon a low, narrow sand ridge that divides the Noosa River from internationally significant patterned fens. The Noosa River Trail, a gorgeously intimate bush-walking track, runs along this ridge from Campsite 3 back toward the vicinity of Harry's Hut. About 4-500 metres of this walking track would be widened for truck access to routinely service the glamorous needs of the new clients. Also apparent is that the permanent camp would be clearly visible to traditional walkers traversing this tragically widened thoroughfare. But why should we care about their traditional and preferred experience? Neither is it possible to be comfortable about the habitat clearing that would quite evidently be required to install

COOLOOLA NATIONAL PARK GREAT OBJECTION PROPOSAL

the site infrastructure. Relatively less sensitive alternative sites are close by but, as confessed by the Site Selection History report, these are just not pretty enough.

This is a bare glimpse of the prickled bed of issues pending germination upon these two sites.

Inequity

Locals identify a disturbing degree of inequity in the project's delivery of needlessly indulgent luxury at a prohibitive ticket price, whilst appropriating important public values to the service of those excesses. Concern toward public equity is possibly the main factor driving local discontent with the project's tenure of the Double Island Point site, more so than any particular impact upon natural or character values. How might successful projection of the product to a global market leverage further expansion of privatised exclusive use upon this prominent public asset? This question applies across the entire Park estate.

An abysmal lack of consultation

Those who've engaged with the consultation process generally deem it to be insincere, dismissive and quite apparently disingenuous. In dismal synergy with their equity concerns, many local people feel that the formal interaction has displayed no real regard for their interests and concerns. In context to the many site issues raised, peoples' confoundment that such a degree of apparent inadequacy and

oversight can even exist at this stage of planning, is stirred to anger by the consultants' responses of bland denial, dismissal or blithe deferral to a future resolution of the necessary detail. At the Rainbow Beach public event, consultants flatly refused to engage in any discussion of participant's concerns. Instead they mandated that participants write their issues on post-it notes and pin them on a board for a controlled response to the meeting and ensuing collation (in the shredder?). There is a common disgruntlement with this quite evidently defective commercial program and the dubious character of its roll-out. Central to this unease is the apparent fact that its driving force has scant regard for either science or democracy. Local people know they will need more than just their own assembled objection to cause

any meaningful change to the current course of things.

This situation presents pressing need, but also opportunity. The examples of damage and risk presented so distinctly within the Cooloola proposal provide a broadly accessible lens for focussing public attention, and thereby better common understanding, toward the crucial importance, and the structural needs, of our biological infrastructure. An adequately informed and motivated public sentiment stimulated by this particular threat could demand not just a rethink of the Cooloola proposal. It could drive a much needed reformation of Parks strategy and management overall. Currently catastrophic outlooks upon both biodiversity and climate change invoke a desperate need for that degree of change.



Photo Banner: Cooloola Sand Mass (Pru Hansen)

Photo Inline (left) : Lake Poona with site mask (Greg Wood)

Photo Inline (right) : Heath beside Noosa River (Greg Wood)

INTEGRATING CLIMATE AND BIODIVERSITY ACTION

- Virginia Young
Director International Climate and Forests Programme

Sadly, we are all too familiar with the profound challenges facing Life on Earth.

Past overuse, conversion, degradation, fragmentation and pollution have resulted in ecosystem decline and collapse in many biomes - threatening the survival of up to one third of Earth's insects, the productivity of agricultural systems, the livelihoods and well being of millions of people and the survival of 1 million other species that form the web of life we call the biosphere and on which we all depend (IPBES 2019). Climate change exacerbates these problems, making it urgent to protect and restore biodiversity and ecosystem integrity across the globe.

Greenhouse gas emissions continue to climb. The impacts of 1.1 degrees of warming on people and nature are at the upper end of predictions. Floods, storm intensity, pests and disease, drought and fire are all clearly increasing as a result of climate change and reaching unprecedented levels across the globe.

We face a stark imperative to deliver urgent and transformative change in the way we live and our economic and political priorities.

But, while recognition is growing that climate change is having an adverse impact on biodiversity and ecosystem integrity, there is much less awareness of the impact of



biodiversity loss and related damage to ecosystems on climate change.

The feedback loops between the climate and biodiversity crises are only just starting to be understood by decision makers. There is more carbon stored in natural ecosystems than in fossil fuel deposits so reducing current and future risk of emissions from them is critically important. Loss of biodiversity, fragmentation and damage to natural and agricultural ecosystems, increases the actual and future risk of, GHG release to the atmosphere. Damaged ecosystems store far less carbon, less securely than undamaged ecosystems. And, allowing degraded natural ecosystems to recover sequesters more carbon faster and more securely than replanting.

Thanks to recent shifts in international policy, we have an important opportunity to educate domestic decision makers on the superior climate mitigation and adaptation benefits of integrating climate and biodiversity action. The UNFCCC recognized this when it called for integrated action to prevent biodiversity loss and climate change at COP 25 (decision 1.CP25 para 15); as did the CBD at COP 14 when it expressed concern that escalating destruction, degradation and fragmentation of ecosystems "would reduce their capacity to store carbon and lead to increases in greenhouse gas emissions, reduce the resilience and stability of ecosystems, and make the climate change crisis ever more challenging" (decision CP 14/21).

International calls to break down the silos between the UN Climate and Biodiversity Conventions are being heard and took a major step forward in June this year with the first ever joint workshop of the IPCC and IPBES, the respective scientific advisory bodies to the UNFCCC and UNCBD.

The workshop did more than add to the already stark warnings about the damage being done by human activity to the health of the biosphere. It concluded that many of the root causes of climate change and biodiversity loss are the same, that each crisis amplifies the other and unequivocally stated that neither crisis can be solved unless both crises are tackled together. The good news is that many of the solutions to both crises are also the same.

Notably, the workshop concluded that preventing further loss and damage to and restoring, carbon and species rich natural ecosystems are urgent priorities for integrated climate and biodiversity action.

Another report commissioned by the UK Government and released this year also helped draw international attention to the seriousness of the biodiversity crisis for our economic well being.¹

The urgency of reversing the trajectory on biodiversity loss and ecosystem degradation is acknowledged in the latest draft of the CBD post 2020 biodiversity framework which includes targets of: increasing protection to 30% of land and sea areas through ecologically representative and well connected systems of protected areas and other effective conservation measures; ensuring that at least 20% of degraded freshwater, marine and terrestrial ecosystems are under restoration that strengthens connectivity; and conservation action that contributes at least 10GtCO₂e per year to global climate mitigation efforts through ecosystem based approaches that support mitigation and adaptation.

Maintaining and restoring ecosystem integrity is essential if we are to meet the challenges facing humanity

CLIMATE AND CONSERVATION



- whether climate mitigation and adaptation, biodiversity protection, human health and well-being or climate resilient sustainable development.²

Protected Areas, Connectivity Conservation and Other Effective Conservation Measures are increasingly understood to be important mechanisms for delivering holistic improvements to the outlook for climate, nature and people.

Preventing the spread of zoonotic disease and improving the quality and quantity of ecosystem services, including long term and relatively stable carbon sequestration and storage are enabled if policies encourage integrated climate and biodiversity action and incentives are provided to improve land use practice and conservation management of natural ecosystems.

An important opportunity exists in Queensland to protect and restore some of our most important carbon and species rich ecosystems and deliver integrated climate and biodiversity outcomes with the future of the native forest sector of the timber industry once more under discussion.

The climate mitigation benefits of allowing previously logged forests to recover to their biological potential are superior to planting new trees, both in terms of the amount of carbon able to be sequestered at a landscape

scale in climate target timelines of 2030 and 2050 and in terms of higher resilience and stability and lower risk of loss from pests, disease, drought and fire. It is surprising how many people confuse the **rate** of carbon sequestration (highest in young forests) with the **amount** of carbon able to be sequestered in forests (highest in older forests). The bigger the tree the more carbon there is stored in it and the bigger the canopy the greater the sequestration potential.^{3, 4}

Maintaining existing forests and woodlands, is critical for both protecting carbon stocks and fostering continuing carbon uptake.^{4,5,6,7,8}

Degradation associated with roads, industrial development and logging increases the vulnerability of forests to drought, fire, pests, disease and climate change.⁸

Maintaining and restoring forest ecosystem integrity is essential to maximize resistance to and resilience in the face of, increasing threats from climate change.

Allowing biodiversity at all levels to recover in native forests improves ecosystem integrity, stability, resilience and adaptive capacity and increases forest resistance to pests, disease, drought and fire – threats that will increase with climate change.

Completing the transition began decades ago out of native forest logging and improving the protection, restoration, connectivity and conservation management of our native forests would provide a major opportunity to (a) immediately prevent substantial GHG emissions from logging; (b) sequester 30-70% additional carbon from the atmosphere by allowing forests to grow past their logging age and reach their biological potential; (c) prevent further loss of habitat for wildlife and enable long term habitat

and wildlife recovery; (d) improve forest ecosystem resilience, stability and adaptive capacity; (e) improve the quality of all ecosystem services notably carbon storage and water quality; (f) reduce fire risk and severity (see [www. Bushfirefacts.org](http://www.Bushfirefacts.org) Report no.3); (g) improve the health of catchments; (h) improve recreational and associated business opportunities; and (i) provide opportunities to improve the mental and physical health and well being of us all.

Western Australia recognized these benefits from ending native forest logging just a few weeks ago. The decision by the McGowan Labor government to rapidly end native forest logging and support the long term future of the timber industry by investing in purpose planted trees on farms, recognized the benefits for wildlife, climate mitigation and local communities.

Its past time Queensland followed suit by living up to the legacy promised by the Beattie Labor government of supporting a plantation based timber industry, allowing our native forests to heal and enabling local communities to thrive.

References:

1. The Economics of Biodiversity: The Dasgupta Review 2021.
2. The Nexus Report: Nature Based Solutions to the Climate and Biodiversity Crises, F20 Foundations, Campaign for Nature, SEE Foundation 2020 (Barber, C.V., R. Petersen, V. Young, B. Mackey, C. Kormos)
3. 'Intact Forests in the United States: Proforestation Mitigates Climate Change and Serves the Greatest Good', *Frontiers in Global Change Biology*, 2019 William R Moomaw, Susan A Masino & Edward K Falson.
4. 'Untangling confusion around land carbon science and climate change mitigation policy', *Nature Climate Change* 2013, Brendan Mackey, I. Colin Prentice, Joanna I. House, David Lindenmayer, Heather Keith, Sandra Berry.
5. 'Counting trees, carbon and climate change', *The Royal Statistical Society* 2014, Brendan Mackey.
6. 'Under what circumstances do wood products from native forests benefit climate change mitigation?' *PLOS ONE* 2015, Heather Keith, David Lindenmayer, Andrew MacIntosh, Brendan Mackey.
7. 'Managing temperate forests for carbon storage: impacts of logging versus protection on carbon stocks', *Ecosphere* 2014, D. Lindenmayer, B. Mackey, D. Blair, L. Carter, L. McBurney, S. Okada, T. Konishi Nagano.
8. 'Understanding the importance of primary tropical forest protection as a mitigation strategy', *Mitigation and Adaptation Strategies for Global Change*, 2020, Brendan Mackey, Cyril Kormos, Heather Keith, William R Moomaw, Richard A Houghton, Russell A Mittermeier, David Hole, Sonia Hugh.

Photo Banner & Inline : Supplied (Virginia Young)

THEY COME AND DESTROY WHAT THEY COME TO ENJOY

- Jane Gray

We, residents of Agnes Water 1770, recently heard straight from Mayor Matt Burnett indications that expansion of the existing carpark at 1770 that gives access to Round Hill Creek, will be provided for by resumption of a portion of the Joseph Banks Conservation Park. And that negotiations with Queensland Parks & Wildlife were proceeding.

This goes against the general first principle to avoid placing new development or assets in coastal hazard areas. This principle can be found on page 34 of the Gladstone Regional Council (GRC), Our Coast Our Future Development Plan. We need better thinking than this.

Joseph Banks Conservation Park is bound by open ocean on the East and the still waters of Round Hill Creek to the West. The park is botanically rich, and protects areas of wind-sheered coastal plant communities, tropical rainforests and mangroves. The park also has a rich cultural history and is part of the Gooreng Gooreng Aboriginal people's country. Cook's ship HMB Endeavour anchored near by and journals tell us that naturalist Joseph Banks collected 33 plant species here.

Purloining any portion of a designated conservation park for use as a carpark is an unconscionable act outside the charter of local government responsibilities for its constituency and even more so the maintenance of safe and healthy natural environments in which they live. To simply expand the current facility by resumption of protected environs is highly undesirable and unacceptable for the following reasons.

The proposed carpark development will place pressure on what remains of a small but significant portion of Joseph Banks Conservation Park's wetland that is under threat.

Unfortunately it seems council is least interested in being environmentally responsible. The wetland provides the sole, permanent supply of fresh water to endemic and migratory fauna for the entirety of this conservation park. This wetland also provides an important array of life sustaining, biologically interdependent bio-systems integral to the health of adjacent Great Barrier Reef (GBR) habitats. It is now widely known and recognised that all wetlands, are invaluable.

The proposed area for resumption, and the finalised carpark facility will not only be singular in function, it will not be sufficient to cater for peak periods when recreational and commercial fishers come from afar. Gladstone Regional Council's simplistic solution of a larger carpark will not solve the real problems, that of increased population pressure and rising sea levels. The latter problems are the focus of our efforts.

There is now incontrovertible, peer reviewed scientific evidence that overfishing is second only to climate change as an existential threat to the health and vigour of the GBR. The proposed car/boat trailer facility will inadvertently contribute to threatening the GBR. There is scientific research that shows the GBR is already suffering from over fishing. Sadly the lessons from the story 'The Lorax' by Dr Seuss are still relevant. Regional Council must accept its roles and responsibilities to share the implementation of measures that will guarantee the GBR's future wellbeing.

Having provided some of the most salient arguments against resumption of Joseph Banks Conservation Park land, alternative more desirable proposals ought to be presented. Proper resolution is well and truly overdue.

Page 10 of Matt Burnett's GRC:

Our Coast Our Future Strategic Plan states:

"Key environmental values include:

Coastal Landforms - including extensive tidal inlets, estuaries, coastal plains and sandy beaches.

Vegetation Communities and Ecosystems - including the wetlands, seagrasses, mangroves, and native dune vegetation; and

Significant and Endangered Species - including both land and marine environments...."

GRC really does need a total rethink, collaborating with its community in a genuine way, to strategically plan in line with its very own publication of environmental policies.

We as a community are being proactive in support of a total rethink. We have commenced work with researchers from Griffith University who have developed a tool to better design spaces along the Queensland coast that are grappling with population pressures and rising sea levels.

All plants and all animals, other than homo sapiens, do not vote, pay taxes ... They cannot save themselves from the species that relies on them most of all.

Please support us in any way you can.

Agnes Water 1770 Community



Photo Banner & Above : Supplied, Jane Gray

THE IMPACTS OF OFF-ROAD VEHICLES (ORVs) ON BEACHES

- Dick Copeman
Friends of Stradbroke Island

Friends of Stradbroke Island (FOSI) has been concerned at the impacts of the increasing numbers of recreational vehicles on the beaches of Minjerribah (North Stradbroke Island). To understand and quantify these impacts, FOSI has prepared a report that analyses the scientific research evidence about them.

Erosion and Vegetation

On K'gari/Fraser Island, a study has shown that twenty percent of dune front and vegetation has been destroyed by ORVs, while in South Australia, they prevented or slowed the natural expansion of foredunes. In the USA, a New Jersey study showed that there was seven times more vegetation cover on protected beaches than on beaches used by ORVs, while at Cape Cod, beach vegetation was eliminated after 70-175 vehicle passes.

Invertebrates - worms, clams, molluscs and crustaceans, etc

A study on Noosa North Shore showed that 25-84% of sampling sites were void of invertebrates on trafficked beaches compared with 2-12% on protected beaches. On Minjerribah, ghost crabs were less than half as abundant on trafficked beaches than on protected beaches and a single vehicle traversing the beach at night killed between 0.12% and 0.75% of the ghost crab population.

Shore and Migratory Birds

The research shows that ORVs on beaches degrade food sources, disturb roosting and resting birds, and strike birds directly. In New South Wales, they were the main cause of destruction of Fairy Tern and Little Tern nests and in Tasmania, the main

cause of the decline of Fairy Terns. A South Australian study showed that 81% of Hooded Plover nests were run over by 4WDs and up to 30% of the chicks were fatally crushed.

In South Africa, the numbers of shore and migratory birds on beaches decreased in the 1980s and 1990s as ORV numbers increased, but bird numbers rebounded after restrictions on ORV access to beaches were introduced in 2001.

Turtles

All five local species of marine turtles are endangered or vulnerable. The research shows that ORVs compact sand, disturb nesting female turtles, crush their eggs, run over hatchlings and impede their movement down the beach. Tyre ruts can commonly be up to 10-15cm deep but only 53% of green turtle hatchlings can traverse a 10cm tyre rut. Even those that can traverse a 10cm rut take 18 times as long to move down a trafficked beach as on flat sand.

Other Impacts

In the period 2010 to 2019, one person died and five needed hospitalisation as a result of vehicle accidents on Minjerribah's beaches.

Aboriginal middens have been damaged by ORVs in NSW and litter on trafficked beaches is greater than on non-trafficked beaches.

Behind the beach dunes on K'gari, ORV access by campers has led to wildfires and to faecal contamination of coastal streams.

Regulations

Current regulation of ORVs on beaches is fragmented between different levels and departments of governments and rarely enforced. It is a similar story in other states and countries, with the notable exceptions of the state of Victoria and the country of South Africa, where ORV access to beaches is almost totally banned.

How Can We Reduce these Impacts?

FOSI is planning a staged campaign to raise awareness of ORV impacts, engage with environment groups and other stakeholders, involve young people and citizen scientists and advocate for actions by governments to reduce the impacts of ORVs on beaches.

For more information: contact FOSI at info@fosi.org.au



Photo Banner : Supplied (Dick Copeman)

Photo Above : Dead Pied Oystercatcher (*Haematopus longirostris*) in Tyre Tracks, Minjerribah/NSI. Source FOSI

THERE'S HOPE - INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE

- Jason Lyddieth

There's hope.

That's the most important take-out from the 2021 Report released by the Intergovernmental Panel on Climate Change.

It's easy to get overwhelmed by how dire the situation is. The report says, "It is unequivocal that human influence has warmed the atmosphere, ocean and land. Widespread and rapid changes in the atmosphere, ocean, cryosphere and biosphere have occurred."

The report finds climate change drives the increased severity and frequency of extreme weather events such as heatwaves, floods, cyclones and droughts. Other impacts of climate change include sea level rise, food and water shortages and increased conflict and displacement of people.

Unless temperatures are kept to under 1.5 degrees most of the Great Barrier Reef will be lost. If global warming increases to 2 degrees, all coral reefs (over 99%) will be lost world-wide and there will be virtually no chance of saving the Great Barrier Reef.

Make no mistake, it's bad news.

But we can turn it around.

We have the solutions. And these solutions are good things we should be doing anyway, regardless of the threat of climate change.

Let's break down what we need to do. It's pretty simple. We need to cut emissions and we need to nurture nature to grow back to draw carbon out of the atmosphere. That's it.

The first step is to transition to clean energy. That means phasing out coal, gas and oil and replacing them with clean energy.

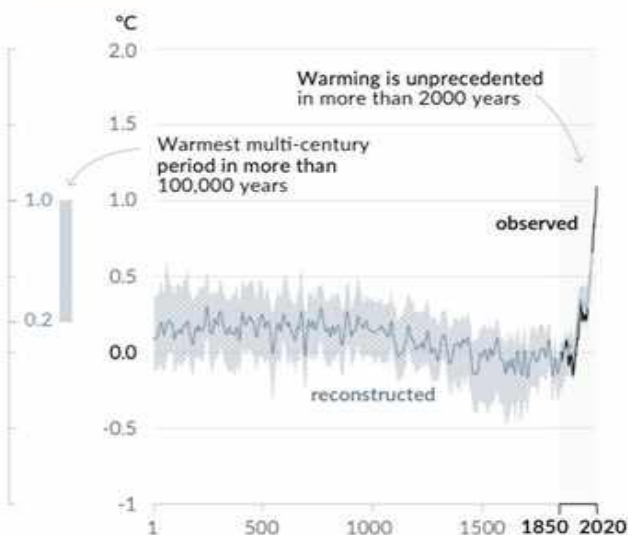
There is a big job in looking after the workers and communities currently dependent on fossil fuels. We've all benefited from coal and gas so we need to stand with the people who will be most impacted by acting on climate change.

We can support them to move into new opportunities. Australia is the best place in the world for renewable energy and report after report shows that if we do have a plan to move to renewable energy there will be plenty of new opportunities.

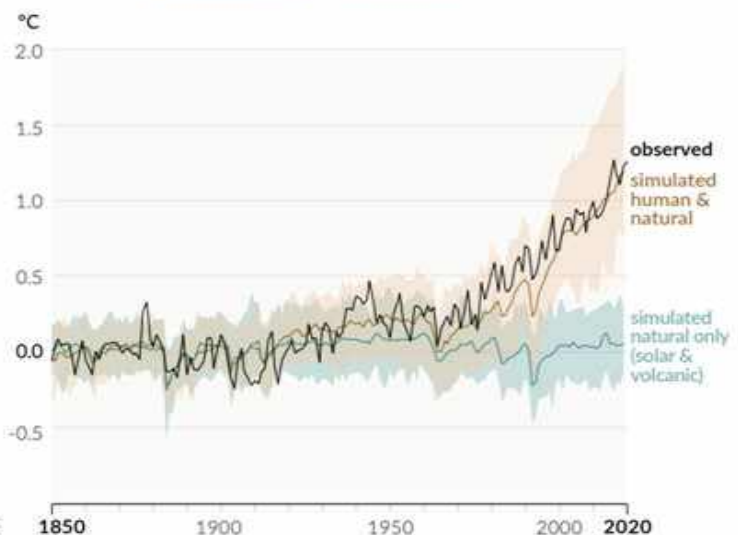
By switching to renewable energy the air will be cleaner, the streets quieter, our bills cheaper. Other ways

Changes in global surface temperature relative to 1850-1900

a) Change in global surface temperature (decadal average) as reconstructed (1-2000) and observed (1850-2020)



b) Change in global surface temperature (annual average) as observed and simulated using human & natural and only natural factors (both 1850-2020)



URG GOVERNMENTAL CHANGE REPORT

to cut emissions will mean more livable cities and towns, less waste, and opportunities for farmers to turn their land from emitters into carbon sinks to draw down emissions.

Acting on climate also means we will need to nurture nature to regrow. By helping nature thrive, greenhouse gasses will be drawn out of the atmosphere into plants. That means more national parks and protected areas, the wildlife we love coming back from the brink of extinction, and restoring the natural world to the exquisite beauty it should be.

Economic forces are driving climate action. Renewable energy is now cheaper than fossil fuels, and all over the world governments and companies are making the switch to clean energy.

Over 300 of the world's biggest companies have signed up to RE100 to drive climate action. Major car companies are now building electrical vehicles. Banks, investment funds, superfunds and insurers are increasingly refusing to support fossil fuels.

Governments are acting. More than 130 countries have committed to net zero emissions by 2030. 10,747 cities have signed onto Global Covenant of Mayors driving climate action from the local level.

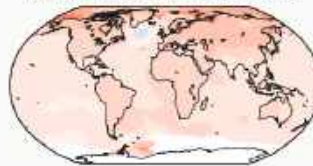
This still isn't the level of action needed to ensure a relatively safe climate. Much more is needed. But momentum is building and the rate of action is increasing.

Sadly and disgracefully, Australia was just named dead last out of 193 United Nations member countries

a) Annual mean temperature change (°C) at 1 °C global warming

Warming at 1 °C affects all continents and is generally larger over land than over the oceans in both observations and models. Across most regions, observed and simulated patterns are consistent.

Observed change per 1 °C global warming



Simulated change at 1 °C global warming



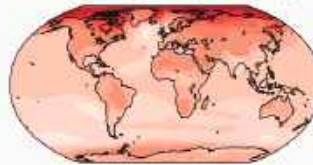
b) Annual mean temperature change (°C) relative to 1850-1900

Across warming levels, land areas warm more than oceans, and the Arctic and Antarctica warm more than the tropics.

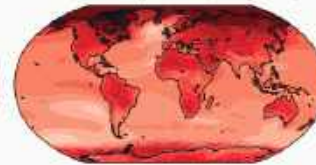
Simulated change at 1.5 °C global warming



Simulated change at 2 °C global warming



Simulated change at 4 °C global warming



for climate action in The Sustainable Development Report 2021.

Australia should be leading the world on climate action. We have the best renewable energy resources on the planet. We are wealthy, smart, innovative and hard working. As a country we pride ourselves on punching above our weight.

The vast majority of Aussies, from all walks of life, support stronger climate action. The Australian Conservation Foundation (ACF) just conducted the biggest poll on climate change ever in Australia and the results show overwhelming support for climate action — with 67% of us rating climate change as one of the issues we are most concerned about.

Unfortunately our politicians are listening to the big polluters, not the people. The fossil fuel companies donated \$1,329,754 to the major political parties in the 2019–2020

financial year and there is a revolving door between the boardrooms of fossil fuel companies, lobby groups, politicians and political staffers.

But if we raise our voices and demand climate action, the politicians will have to listen. There is a growing movement and we can quickly turn Australia into a leader on this issue.

If you're worried about climate change but haven't raised your voice, now is the time. There is hope, but only if we speak out now.

Come over to the ACF website if you want to see some effective ways to take action.

Photo Banner : Changing by Alisa Singer

"As we witness our planet transforming around us we watch, listen, measure ... respond."

Photo Inline : Figure SPM.5: Changes in annual mean surface temperature, precipitation, and soil moisture

PARK IN FOCUS



Bribie Island National Park

- Diane Oxenford
BIEPA

"Welcome to Bribie Island - Fauna and Flora Sanctuary"

The sign greets residents and visitors to Bribie before crossing the Bribie Bridge

BRIBIE ISLAND TOURISM MODEL - A TRAGEDY OF THE COMMONS

In economic science, the tragedy of the commons is a situation in which individual users, who have open access to a resource unhampered by shared social structures or formal rules that govern access and use, act independently according to their own self-interest and contrary to the common good of all users, cause depletion of the resource through their uncoordinated action.

Bribie Island is a protected and valuable natural resource and asset within Moreton Bay which provides International protection for Bribie's avian, marine and terrestrial fauna, flora and habitat. Bribie is often referred to as the "Jewel of Moreton Bay". Protections include: Ramsar Convention on Wetlands (1993); Convention on the Conservation of Migratory Species (1991), Single Species Action Plan for the Loggerhead Turtles of the South Pacific Ocean (2015); Recovery Plan for the Marine Turtles in Australia 2017-2027; Marine Park (1992); National Park (1994); Nature Conservation Act (2017); National Dugong and Turtle Protection Plan (2014-2017). Not insubstantial protections.

Bribie Island's environmental, cultural, historical and lifestyle assets are under siege by an unsustainable Tourism Model, with little return on investment and introduced without requisite consultation, environmental, economic and social impact assessments.

A Tourism Model based on unrestricted and uncontrolled use and abuse of a resource and asset is not viable in the long term, especially with the present Extinction Crisis.

The concept of a Tourism Model that markets and promotes destructive recreational activities is inappropriate and unsustainable for Bribie. That is: (1) the 24/7 damaging exclusive use of Bribie's LIVING Ocean Beach for unrestricted and uncontrolled 4x4 recreational beach driving enthusiasts; (2) the unrestricted and uncontrolled use of Bribie's surrounding waterways for PWC (jet ski) enthusiasts, and (3) the uncontrolled use of Bribie's beaches for off-leash dog recreation. These three recreational activities preclude other safe, less destructive passive recreational uses of Bribie's natural assets. These forms of recreation disturb, invade and sterilise fauna and flora habit - the Interdependent ecosystems that support the survival of Bribie's Internationally protected and threatened avian, marine and terrestrial fauna and flora. (Resident and migratory birds, sea turtles including endangered nesting loggerheads, dugongs, dolphins, seagrass beds, protective healthy dune systems, living intertidal zones, wetlands, forests and heathlands)

Since the 1950s, scientific studies continue to demonstrate the negative and sterilising impacts these forms of recreation impose on the natural environment and its inhabitants. See FOSI Investigative Report.

Queensland has only 8.2% of land designated to be protected as National Park. A 2010 government audit noted only 17% of Queensland's National Parks have Management Plans. Without Management Plans, requisite Threatened Species lists, Environmental Impact Assessments and Baseline Studies, it is unwise to open protected areas to invasive and destructive forms of recreation. Bribie Island does not have a National Park Management Plan.

The Bribie brand - a safe restorative sanctuary - is seriously threatened.



Photo Banner : Supplied (Diane Oxenford)

Photo Inline : Bribie Bridge over Pumistone - Supplied (Diane Oxenford)

WILDLIFE FEATURE

Australia's forgotten predator – the amazing Spotted-tailed Quoll

Paul Revie – Quoll Society of Australia Inc.

Prowling the forests of southern Queensland after dark, the spotted-tailed quoll, *Dasyurus maculatus*, is the largest marsupial carnivore on the Australian mainland. Female quolls average around two kilograms in weight, while males can reach five kilograms and have a total body and tail length approaching 1.5 metres. Despite their relatively small size, quolls are ferocious predators, able to subdue prey up to five times their own size with a devastating killing bite to the back of the neck. Quolls have been known to take prey ranging from freshwater crayfish and goannas through to small and medium size macropods, but their favourite foods include possums, greater gliders, and introduced rabbits.

On mainland Australia, spotted-tailed quolls once occurred from Gladstone in central Queensland, south on both sides of the Great Dividing Range into South Australia. Quolls have disappeared from up to 90

percent of their former range, and they now have a patchy distribution centred in New South Wales, with several small populations hanging on in Queensland and Victoria. There are also subspecies in Tasmania, where numbers are still secure, and Queensland's Wet Tropics, where only a couple of hundred individuals remain.

The main cause of spotted-tailed quoll declines is habitat clearing and fragmentation. The species roams across huge areas, with males having overlapping home ranges averaging 1,000 to 2,000 hectares. Females defend non-overlapping territories up to 800 hectares in extent. Because they have such large home ranges, quolls require vast tracts of relatively undisturbed forest in order to survive and thrive. Ideally, these remnant forests should also have high densities of prey, and a broad range of denning sites, including fallen and standing tree hollows, rock crevices, and burrows. Other threats to quolls include predation and competition from introduced foxes and cats, roadkill, and deliberate persecution around chicken coops.

In southern Queensland, quoll sightings have plummeted in recent decades. What was once a continuous population has become restricted to a handful of large protected areas and adjacent forested lands, including the McPherson and Main Ranges, Lamington Plateau, and potentially the Burnett Ranges and Dalby region. Their true stronghold in Queensland is the Granite Belt region,



where quolls have been recorded in Girraween and Sundown National Parks, Broadwater State Forest, and numerous private properties between and around these protected areas. Connecting and expanding the protected area estate in this region, and working closely with private landholders to make production properties more quoll-friendly, are the keys to the survival of this feisty little predator in Queensland.

Because of their large home ranges, and their position in the landscape as a top order predator, quolls are the perfect conservation umbrella species. By default, protecting areas suitable for self-sustaining quoll populations will also protect a plethora of other threatened and common fauna and flora species. In the southern downs region alone, spotted-tailed quolls share their habitat with around 40 other threatened fauna species and 80 flora species. While quoll conservation will require collaboration between a diverse range of stakeholders, it is our responsibility to ensure that these beautiful carnivores do not fade



Photo Banner & Inline : Spotted Tail Quoll (*Dasyurus maculatus*) - Supplied (Paul Revie)

The Quoll Society of Australia Inc. (QuollSA) is researching and conserving quolls in southern Queensland. Sign up at www.quollsa.org to volunteer, or search QuollSA on Facebook and Instagram.

NATIONAL PARK EXPERIENCE

- Adelaide Burstow

Day trips to Springbrook National Park have always been something my family and I have enjoyed, and it is often the first place we think of outside our more local walks up Mt Gravatt or Toohey Forest. There are six of us in total (not counting our feisty, but loveable, pet bird) and we will all occasionally take the day off to go and walk the Twins falls circuit. We love this track because it is pleasantly challenging, without being a proper hike (that being said, if you ever feel like a long day walk try the 14km Warrie circuit!)

While I love everything about the environment up at Springbrook, the winding paths, amazing, tall trees, cascading waterfalls, and the classic call of the whip-bird, I have two favourite parts of the twin falls circuit. The first is the rock tunnel around halfway through, just before the branch to the Warrie Circuit. Something about how big those rocks are, and how small it makes you feel, has always instilled me with a sense of awe. The second is near the end of the circuit and where you can look out over the rolling landscape towards the gold coast. Make you

realise how high up you are! We will often stop at the top and munch on some apples and vegemite shapes (the best kind in my opinion) before continuing on to the finish. Once we do we usually wind down and get some food at one of the local restaurants. I fondly recall having some amazing fudge at The Fudge Shop (go check them out if you're up there!).

Going on these trips with my family always reminds me how much I love being outside and the calm being in nature gives me. This feeling has carried me through many years of geography and biology through high school and finally to an environmental management degree in university. Where I have studied mapping, geology, ecology and social science among other things. Now as I walk along these paths I can name the trees and the soil, and knowing that much more about the environment we live in has made me feel more connected to it than ever (if you love fun facts I would definitely recommend bringing an environment



buff along on your walks!).

Having protected areas such as Springbrook National Park, I believe, is essential, not just for the preservation of our amazing fauna and flora but also for our physical and mental wellbeing and carbon sequestration. Our protected areas offer so much for our communities and having such easy access to them in Queensland is a real treat. I am now working with NPAQ on a weekly basis to help protect our natural areas and possibly even facilitate the creation of new ones (fingers crossed!). I believe that the protection of areas we enjoy now is essential to enable future generations to enjoy them as well.



Photo Banner & Above : Springbrook National Park - Supplied (Adelaide Burstow)

RANGER SPOTLIGHT

Insights into the diverse backgrounds and day-to-day activities of Queensland's park rangers

Tracy Waltz
Queensland Parks & Wildlife Service (QPWS)

Tracy Waltz is Ranger in Charge, Northern Mulga, in the south west region of QPWS. Being a part of the natural world was important to Tracy from a very young age. Loving endless time in the Gippsland region, she spent hours with her Uncle, a naturalist, walking the upper reaches of rivers, exploring forests—admiring and taking grace and strength from nature. Being a Ranger wasn't something she 'decided' to become. Following her heart led her out west into semi-arid landscapes where she fell in love with the wide-open spaces, red earth, blue sky, many shades of greens ... and a beautiful soul.

How long have you worked in national parks?

I have worked as a Ranger for QPWS for 16 years.

Which parks have you worked in?

For all my working years I have remained in the west. I started out in Charleville, where I worked on Chesterton Range, Tregole and Mariala national parks, and surrounding national parks such as Currawinya and Lake Bindigolly. Later, I enjoyed time up in the central west region based in Longreach, working as a natural resource Ranger across Astrebla, Welford, Bladensburg, Lochern and Idalia national parks. I was also fortunate to have worked alongside my partner, the late Peter McRae, assisting with the long-term bilby research on Astrebla Downs, spending many hours spotlighting, ground-truthing bilby burrows and establishing monitoring sites. Your heart certainly skips a beat when you see your first bilby in the wild!

What is special about your current park?

Mariala National Park is one of a few locations supporting two small groups from the last captive colony of yellow-footed rock wallabies (*Petrogale xanthopus celeris*), released in September 2020 from the Charleville-based Threatened Species program, originally managed since 1983 by the

late Peter McRae. The sub-species is listed as vulnerable and has a restricted distribution range centred on the northern Grey Range between Blackall, Quilpie and Windorah. Our parks crew, alongside the Threatened Species team, assisted with capturing, conducting health assessments, transporting and releasing the yellow-footed rock wallabies. We micro-chipped and ear-tagged all wallabies for monitoring after release. We also assessed sites for food, water availability, and low numbers of predators; and set up field cameras to monitor wallabies—data we provided to the Threatened Species team during the first six months of the release. It's a wonderful feeling returning these wallabies to the wild!

What is your most memorable moment as a ranger?

My list: being part of flora and fauna surveys and contributing to gathering species lists across the western parks. Collecting and identifying plants, running pitfall lines to trap reptiles, mammals, amphibians, insects, and spiders. Setting up harp traps to catch and identify bats, wading through waterholes setting traps in the rivers to identify the aquatic critters and enjoying the dip!

What is the best part about working in a National Park?

Western Queensland landscapes are timeless, hot, harsh, and yet so astonishingly beautiful. The parakeelya (*Calandrinia balonensis*) growing on stony soils, the knarly bendee (*Acacia catenulata*) on the rocky escarpments, the diversity of plants and animals existing on the edge, the boom and busts, the hidden waterholes far from anywhere. The peace. Wandering across the vast open spaces, you find yourself feeling like you're standing in an inverted bowl, where the sky feels bigger than the landscape you're standing on, and the night sky twinkling with a million stars, is a unique experience. I think sharing with travellers coming through the area, the magic of the



Photo Above: QPWS Ranger Tracy Waltz - © Queensland Government.

Photo Banner : Spencers Waterhole, Hell Hole Gorge National Park | © Queensland Government

semi-arid lands and how to look for natural beauty in what seems to be an unforgiving place, helps others have a greater appreciation of the diverse environments we live in.

Can you describe your favourite national parks experience?

After the sun drops away and heat from the day starts to subside, covered in dust, smiles all round, you begin to feel relief come over you. A dip in Spencers Waterhole in Hell Hole Gorge NP leaves you feeling replenished. With permanent waterholes along deep stony gorges, it's the place to be for sunset, as you watch the last rays of sun light up the rock walls, changing hues of red into orange as they fade with the day. Very peaceful!

What is your top tip for visitors to your park?

Be safe, plan your trip to the more remote western parks. They are seasonal, and help can be hours away. Be sure someone knows where you're going and when you're returning and ensure you have plenty of food, water, fuel and carry firewood. Don't be in a hurry, you never know what natural wonders you'll discover.

.....
NPAQ thanks Tracy for taking time to answer our questions. We appreciate the work all QPWS rangers undertake in protecting Queensland's national parks.

WHAT'S



NPAQ activities

Birdwatching – 24th October 2021 Sheepstation Creek Conservation Park, Upper Caboolture

Date: 24 October 2021

Meet: 7:30am end of Phelps Road, UBD 46 N20

Cost: \$5

Leader: Ian Peacock (0416 943 280 or ianpeacock@hotmail.com)

Birdwatching 21st November 2021 – Sandy Camp Road

Date: 21 November 2021

Meet: 7.30 am adjacent to the entrance gate, northside of Sandy Camp Road, Lytton

NPAQ events

Romeo Lahey Memorial Lecture

Date: 23 October 2021

Time: 9:30am - 11am

Venue: Kedron Room, City Hall
64 Adelaide St, Brisbane City QLD 4000

Cost: Free, donations appreciated

More information: <http://npaq.org.au/rhl/>

Vale

NPAQ is deeply saddened by the passing of the following NPAQ members:

Life member **Beth Macintosh** who joined NPAQ in 1943. Beth and her husband were actively involved with exploratory trips for NPAQ; Life member **Bruce Lucas**. Bruce was a long term member of NPAQ and joined in 1987; Life member **Alan Clarke**. Alan joined NPAQ in 1952 and became a life member in 1959; Life Member **Hugh Peachy** who joined NPAQ in 1948; And Life member **Kennith Sandercoe** (photo right) who joined NPAQ in 1947. Ken became a life member in 1954 and was a valuable asset to NPAQ, particularly for extended trips. Ken passes away at the age of 100 and 2 months.

We send our heartfelt condolences to their friends and family.



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As part of your NPAQ membership you receive four *PROTECTED* magazines every year both digitally and in hard copy, if you choose. You will also receive our monthly *Neck Of The Woods* newsletter, exclusively for members with organisation updates, including advocacy work and NPAQ event information.

Membership registration Details

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First Name _____

Middle Name _____

Last Name _____

Date of Birth / /

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Suburb _____

State _____ Postcode (Australia)

Telephone ()

Mobile

Email _____

Type of membership

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- Household (\$70)
- Conservation Partner (Individual) \$245
- Conservation Partner (Household) \$370

**Conservation Partner membership include one year registration + a tax deductible donation*

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