

wildlife matters

Issue 45 | May 2023

*A golden
opportunity*



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Australian Wildlife Conservancy (AWC) is a global leader in conservation, providing hope for Australia's wildlife with a science-informed, land management partnership model that delivers high impact results.

The mission of AWC is the effective conservation of all Australian animal species and the habitats in which they live.

To achieve this mission our actions are focused on:

- Establishing a network of sanctuaries which protect threatened wildlife and ecosystems. AWC now owns, manages or works in partnership to deliver and influence conservation across more than 12.9 million hectares (31.9 million acres).
- Implementing practical, on-ground conservation programs to protect wildlife. These programs include feral animal control, fire management, weed eradication and the translocation of threatened species.
- Conducting (either alone or in collaboration with other organisations) scientific research that will help address the key threats to native wildlife.
- Hosting visitor programs at our sanctuaries for the purposes of education and promoting awareness about the plight of Australia's wildlife.

AWC is an independent, not-for-profit organisation with its head office in Perth, Western Australia. Donations to AWC are tax deductible.

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Cover image:
A Golden Bandicoot (*Isoodon auratus*) photographed on Yampi Sound Training Area, Western Australia. Brad Leue/AWC

For references see online articles
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CEO MESSAGE

Australia's landscapes and wildlife are famous for their dramatic cycles of boom-and-bust in this land 'of droughts and flooding rains'. Indeed, the deluge experienced across many parts of northern Australia early this year may bring about boom conditions for some wildlife, but for Australian Wildlife Conservancy (AWC) operations and our team, this wet season caused major disruption and hardship. Despite these challenges, the updates in this issue of *Wildlife Matters* offer inspiration and hope for those of us working to better value and effectively conserve biodiversity, a mission that is now more urgent than ever.

In the face of major floods in the Kimberley, which prompted emergency evacuations from Mornington-Marion Downs and Charnley River-Artesian Range Wildlife Sanctuaries, the AWC family has shown remarkable strength, resilience, and commitment to the cause. Damage was extensive and full recovery will take time, but plans are advancing for the Mornington Restoration Program, returning this conservation icon to its place as one of the most substantial field research stations in northern Australia. Your ongoing support in the aftermath of the Kimberley flood disaster has been profoundly appreciated by all of us at AWC.

Meanwhile, right across Australia our field teams continue to deliver science-informed land management, both at sanctuaries we own and in areas where we work in partnership. Science is at the heart of all that we do. We support fundamental research into threatened and poorly-known species (like the Magnificent Brood Frog) to better understand their ecology and to refine our conservation approach. At the same time, we're embracing innovative ways to monitor wildlife populations using the best technology available, with camera traps, bioacoustic recorders and drones fast becoming essential additions to our ecologists' toolkits.

We measure and celebrate good outcomes – through our rigorous Ecohealth monitoring and reporting (including our biodiversity scorecards) – and with stories of success like the long-anticipated banishment of Rambo the fox from the Pilliga, or the critical translocation of the Northern Bettong to a safe haven at Mount Zero-

Taravale Wildlife Sanctuary. These consequential projects will help stave off the extinction of some of our most highly threatened species. As a national program, our work to reintroduce threatened species to a network of safe havens is globally significant. Mt Gibson Wildlife Sanctuary will soon see the release of the tenth species to be returned to the site – the Chuditch – setting a new record for the number of species reintroduced in a single large-scale project of this kind.

We are working alongside First Nations Australians to help fulfil our shared vision of healthy Country where wildlife can thrive. At Ngalurtju in central Australia, we're establishing a great team as we build on relationships with local communities and get to work with expert rangers to track down species like Tjalapa, the Great Desert Skink.

AWC remains ambitious and forward-looking, with plans to future-proof our field operations against the climate extremes of the current century, while properly safeguarding invaluable resources like the biological samples collected over decades by our scientists.

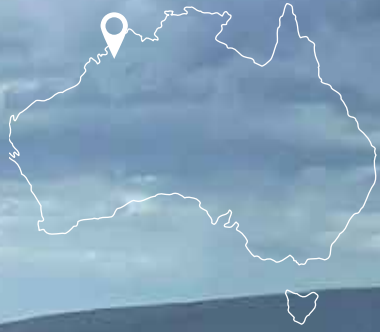
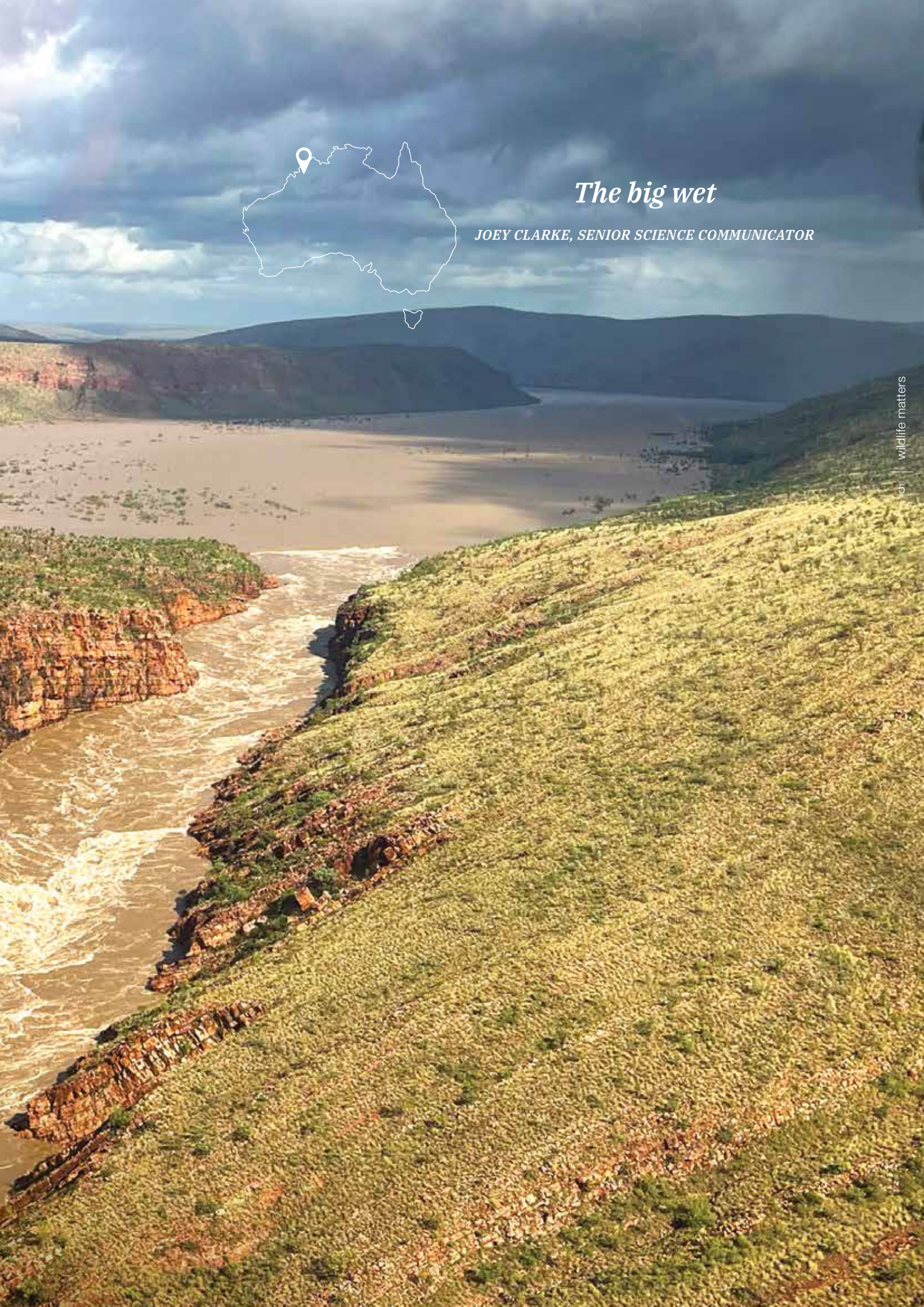
AWC is working with government too; alongside AWC Chair Nick Butcher, I recently met with Federal Minister for the Environment and Water Tanya Plibersek to discuss how AWC can help government achieve their national objectives for the conservation of priority species and places. There is a lot more work to be done and significant opportunities for our organisation to contribute.

AWC's contribution to Australian conservation is increasingly being recognised. I am extremely proud of everything that we're achieving. We're making a real difference. Thank you for being a part of the AWC family and for helping us to deliver effective conservation for Australian wildlife.

Tim Allard
Chief Executive



Martuarra-Fitzroy River at Diamond Gorge on AWC's Mornington Wildlife Sanctuary in the days following the flood peak in early January. The area received 831 mm in a week. *Kenrick Ebsary, pilot with HeliSpirit*



The big wet

JOEY CLARKE, SENIOR SCIENCE COMMUNICATOR



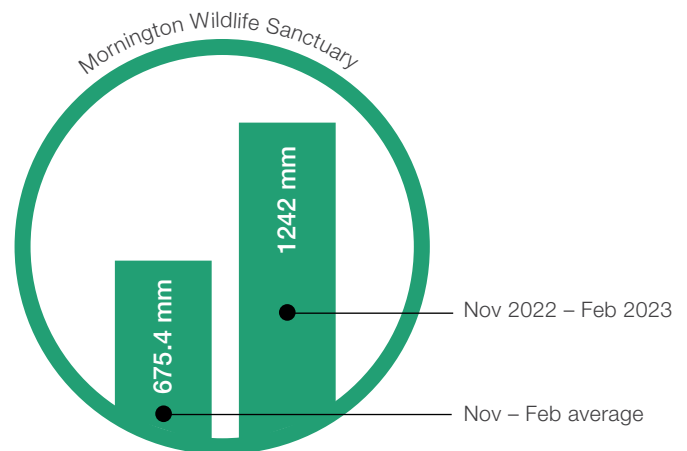
Sanctuary Manager Graham Wood revels in the rain at Piccaninny Plains Wildlife Sanctuary, Cape York, which received the highest wet season rainfall on record. Sally Gray/AWC

A dramatic wet season leaves its mark across northern Australia

Last wet season, it rained so much at Piccaninny Plains Wildlife Sanctuary that even the frogs moved inside, taking refuge in the managers' house and croaking from the bathroom. Living on-site in some of the most remote parts of the country, Australian Wildlife Conservancy's northern field teams are well-accustomed to the isolation and inconvenience of the annual wet season. However, this past summer saw extraordinary rainfall totals, causing disruption on a scale not seen before. In a dramatic turnaround from dry conditions and low or 'failed' wet seasons in 2018-19 and 2019-20, the past three years under consecutive La Niña weather patterns have been accompanied by a series of supercharged rainfall events. The AWC team in the Kimberley was affected by the most intense flooding ever recorded on the Martuwarra-Fitzroy River, while the Gulf of Carpentaria and Cape York Peninsula were drenched through February and March. The impacts of this big wet season, both positive and negative, are still being felt across the north.

Triple-dip La Niña

One major contributor to recent weather was the unusual line-up of three successive La Niña events from late 2020 to early 2023. This global weather pattern is triggered by warm water currents in the Pacific Ocean and has a powerful influence over seasonal weather across all continents. In Australia, La Niña typically brings high rainfall along the eastern seaboard and across the



north. This was the first instance of three La Niñas in a row this century. In March, the Bureau of Meteorology called an end to the succession of La Niñas and predicted a possible reversal to drier El Niño conditions ahead.

Kimberley flood disaster

It was a disastrous start to 2023 in the Kimberley. In the days after Christmas, ex-Tropical Cyclone Ellie set a slow and meandering course from the Top End towards the north of Western Australia. By New Year's Eve the system was hovering over the Martuwarra-Fitzroy River catchment, dumping huge amounts of rain before it moved slowly west. An automated rain gauge at Dimond Gorge registered a phenomenal 831 mm over the seven-day period up to January 3, which is 96% of the average annual rainfall for Mornington. With the ground already



The Mornington Wilderness Camp restaurant building was inundated in January as water backed up from the Martuwarra-Fitzroy River, causing major damage to infrastructure. *Joshua Guthrie/AWC*

soaked and creeks gushing, water soon started to back up in the Martuwarra-Fitzroy River, where the narrow constriction at Dimond Gorge acted like a natural dam. Low-lying areas in the south of Mornington were quickly inundated, the Fitzroy Bluff becoming an inland island, while AWC staff and researchers at the operations base watched as Annie Creek turned into a moving mass of water and the Adcock River broke its banks, backfilling into the operations base along Home Range. Meanwhile, the Screwdriver Home Creek was also rising at Charnley River-Artesian Range Wildlife Sanctuary operations base, and the power system went down shortly after.

By Tuesday January 3 the AWC team had shifted into emergency response: with support from our partners at Kimberley Air Services, three staff members were evacuated by helicopter from AWC's Charnley River operations base, followed by the evacuation of all eight people (four AWC staff and four Monash University researchers) from Mornington on January 4. Further downstream, the flood reached levels over 15 metres at Fitzroy Crossing, destroying bridges and displacing hundreds of people, rendering whole areas unliveable. The impact on communities in the Fitzroy River valley is substantial and ongoing.

A week later, floodwater had receded from both of AWC's Kimberley operations bases. A team of AWC staff was able to fly into Charnley River and Mornington by helicopter from Derby to conduct a damage assessment. Thankfully, Charnley River sustained minimal damage, but at Mornington it was a different story. Many of

the buildings had been inundated up to 1-2 metres, leaving the contents of the research offices and staff accommodation muddy and jumbled. In the steamy conditions, mould was adding to the destruction. The loss of the AWC Kimberley Herbarium – a reference collection of carefully-preserved plant specimens compiled over two decades by passionate ecologists, botanists and volunteers – was a particularly sad one.

A long path to recovery

While structurally sound for the most part, the buildings that make up the Mornington research centre, operations base and staff housing will need to be gutted and renovated. Much of this work relies on road access being re-established (still an unknown at time of writing). Heavy demand for helicopters in the region and limited stocks of aviation fuel on-site is another constraint to contend with.

Despite this big disruption, to the extent that we can, AWC is determined to continue our important conservation work in the Kimberley. Our award-winning, large-scale prescribed burning program (Ecofire) is already getting underway, being delivered alongside our partners from Wilinggin Aboriginal Corporation and Dambimangari Aboriginal Corporation.

The land management and science programs that we have developed over the past two decades at Mornington have brought about significant improvements in landscape ecological health. It will take some time to get back to normal, but we remain determined to continue this critical work, alongside our partners.



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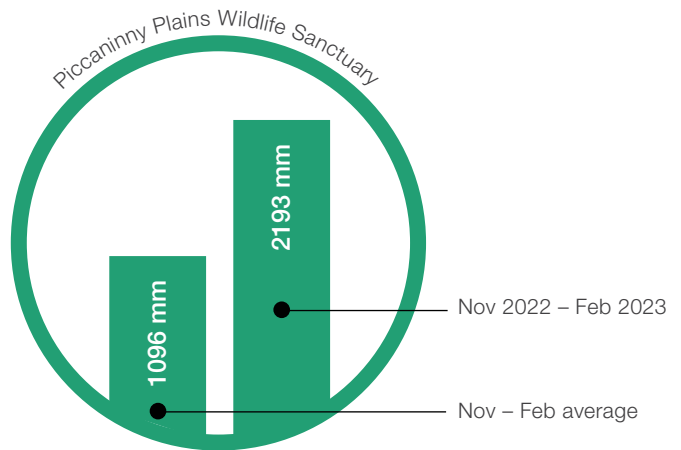
Piccaninny Plains Wildlife Sanctuary on Cape York is home to 70 wetlands of national significance. *Sally Gray/AWC*



Biggest wet season ever on Cape York Peninsula

On the other side of northern Australia, Cape York Peninsula was in the firing line for a series of low-pressure systems which swept across from the Gulf of Carpentaria in February and March. AWC's Piccaninny Plains Wildlife Sanctuary received its highest wet season rainfall on record, with 2,137.5 mm falling between December 1 2022 and February 28 2023. This was the highest rainfall recorded anywhere on the Cape.

For sanctuary managers Graham Wood and Sally Gray, being isolated for a few months in the wet season is par for the course, with access by air often the only option during the wet. The sustained rainfall over this past wet season saturated the land to such an extent that even light aircrafts could not land on the airstrip, with helicopters providing the only way of getting on or off the sanctuary.



Piccaninny Plains is adorned with a remarkable network of wetlands which extend along the Archer River floodplain. The transformation from a parched, crispy, brown landscape in the late dry season to lush, vivid greens in the wet is dramatic; Brolgas and Magpie Geese flock to these areas in huge numbers, along with ducks, herons, darters, and cormorants. Across the wider plains, the team has observed a flush of growth in native grasses, which in time will provide a boon for seed-eating birds and native rodents. In the months ahead, that flush of vegetation growth will cure, creating the dry grass which fuels the yearly pattern of dry season fires, including the prescribed burns implemented annually by AWC.

Northern Australia's 2022-23 wet season saw extraordinary rainfall and flooding from the Kimberley to Cape York. As the climate continues to shift, these record-breaking events are projected to happen more frequently. The disruption to AWC infrastructure and work programs was substantial, but we are committed to rebuilding and future-proofing our remote operations bases as best we can. The tropical ecosystems we work in show a remarkable level of resilience to disturbances; but even for plants and animals which have evolved in northern Australia's climate of extremes, there are limits.

What about wildlife?

While the impact of big rainfall and flood events can be disastrous for human populations, the effects on wildlife are varied. At a broad landscape scale, northern Australia's ecosystems have evolved under a regime of long, rainless dry seasons and intense wet seasons. Each wet season brings a flush of new growth, creeks and wetlands are replenished and the brown savanna grasslands turn green. The surge of vegetation growth is a major driver of productivity in these ecosystems: it triggers a proliferation of invertebrate life, while plants produce flowers, fruit, and seeds which nourish a diversity of larger animals – amphibians, reptiles, mammals, and birds. For many groups of animals, the wet season is a time of abundance and a trigger for breeding activity.

Immediate effects

As you might expect, flooding poses an immediate threat to some animal species. For birds like the Purple-crowned Fairywren, the wet season is when most breeding activity takes place. The fairywrens build their nests in the thick stands of Pandanus that line

watercourses like Annie Creek, usually just a few metres above the water level. In previous years, the research team from Monash University who have been studying this population has documented nests being destroyed by floods, with an immediate impact on recruitment of young birds to the population. Larger and more mobile species like wallabies are usually able to seek refuge on higher ground. Snakes and goannas are frequently observed swimming to and climbing into branches or sticks to seek refuge from rising floodwaters.

Longer-term effects

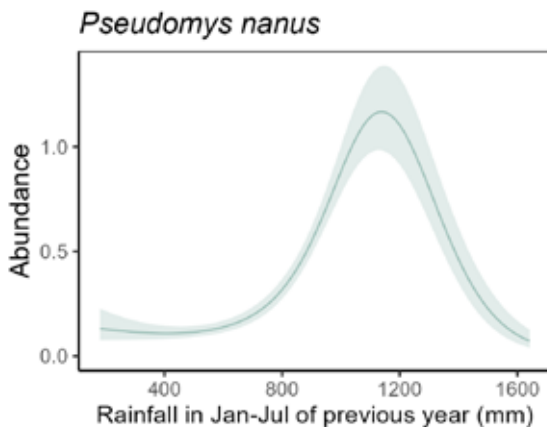
Over the longer term, high rainfall events and floods can have varying effects on populations of different animal species. AWC has conducted an extensive program of Ecohealth monitoring in the Kimberley for 17 years. Comprehensive surveillance surveys are designed to monitor groups of species which are indicative of overall ecosystem health, alongside targeted threatened species surveys.

A preliminary analysis of data for four abundant surveillance species shows interesting variation

Western Chestnut Mouse



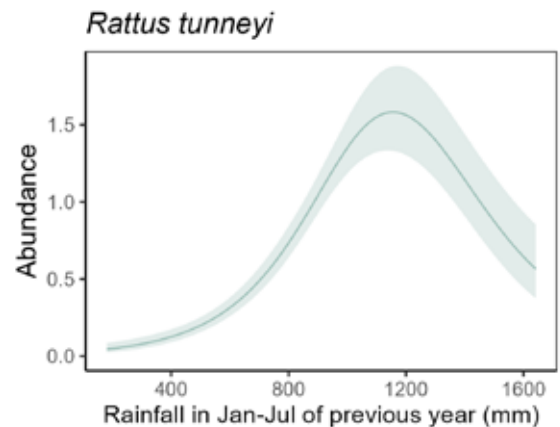
Brad Leue/AWC



Pale Field Rat



Brad Leue/AWC



between their responses to the level of rainfall in the preceding year.

Two native rodents, the Western Chestnut Mouse (*Pseudomys nanus*) and the Pale Field Rat (*Rattus tunneyi*), show a broadly similar pattern. Their preference seems to be for ‘not too wet, not too dry’, with the probability of trapping them increasing as rainfall increases, but only up to about 1,200 mm, after which capture rates decline. A range of complex ecological factors influence abundance of small mammals in a similar pattern, including food availability, interactions with predators, and reproduction rate.

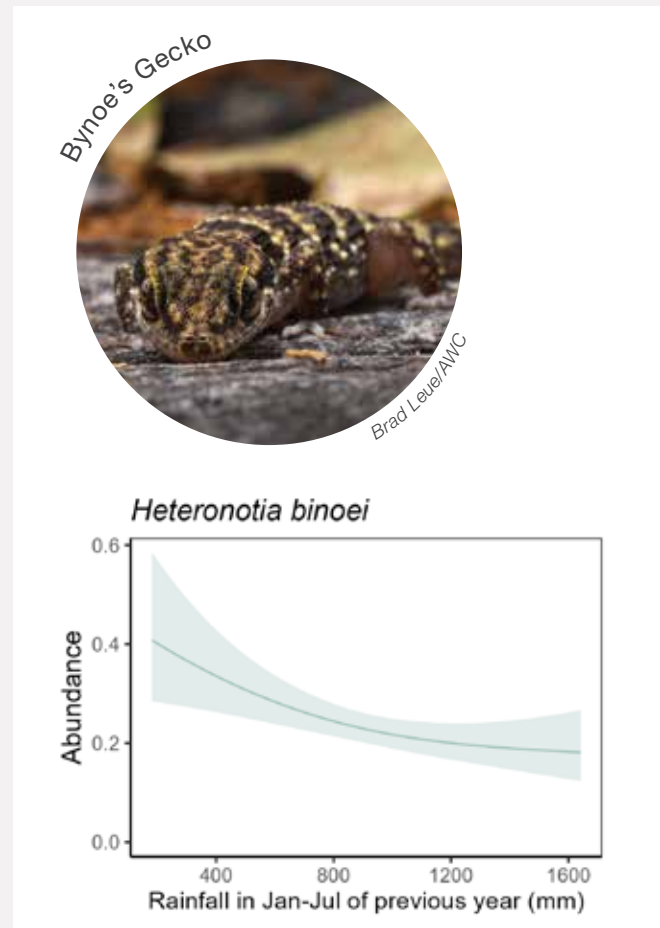
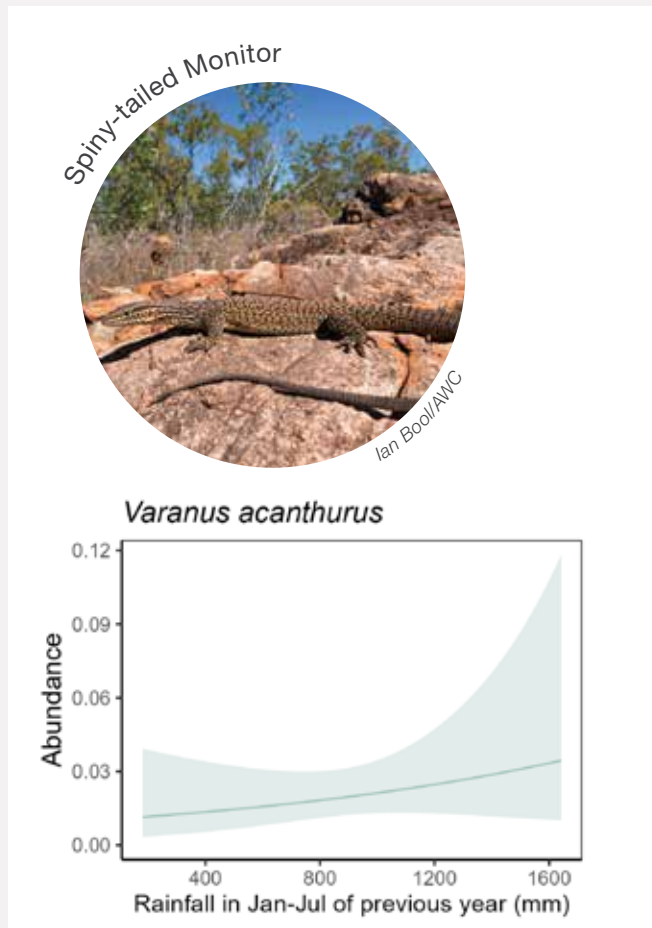
For a small goanna, the Spiny-tailed Monitor (*Varanus acanthurus*), the relationship is clear – like other goanna species, they are more likely to be detected after wet years than after dry years, due to the higher availability of prey species.

By contrast, the small and ubiquitous Bynoe’s Gecko (*Heteronotia binoei*) seems to do better following dry

years. One possible explanation is that wetter years provide a boost to the overall number of predators in the ecosystem, increasing pressure on these small nocturnal reptiles.

These species show varied responses to year-to-year variation in rainfall. The long-term datasets AWC produces through our Ecohealth monitoring program are very informative for building a better understanding of how these ecosystems function.

The long timespan of the datasets also makes it possible to discern the inter-annual fluctuations influenced by season, from the substantial population changes which result from AWC’s active conservation management. For example, monitoring indicates that small mammals have shown a sustained increase in abundance over the duration of Ecohealth monitoring at our Kimberley sanctuaries and partnership sites.



Graphs created by Holly Sitters/AWC



A Brush-tailed Bettong (*Bettongia penicillata*) is released into the 9,570 hectare feral predator-free area at Mallee Cliffs Wildlife Sanctuary, New South Wales.

AWC reintroductions and global rewilding efforts

DR JOHN KANOWSKI, CHIEF SCIENCE OFFICER

Australia holds the world record for mammal extinctions in the modern era, losing close to 40 species in the last 200 years, driven primarily by predation by feral cats and foxes. A further 70 or so Australian mammal species are considered ‘extremely’ or ‘highly’ vulnerable to cats and foxes; most have suffered extensive declines. These extinctions and declines represent the loss of our natural heritage, the loss of cultural heritage for Indigenous people, and the disruption of important ecological processes – for example, the dispersal of seeds and fungal spores, and ‘soil engineering’ – across much of Australia.

AWC is a national leader in the reintroduction of threatened mammals to parts of their former ranges. AWC’s reintroduction program is mostly built around the establishment of ‘safe havens’: fenced areas or islands from which cats and foxes have been eliminated. As of 2023, AWC manages ten safe havens, to which a total of 16 mammal species have been reintroduced; with another three mammal species reintroduced to two sites where predators are intensively controlled, but not eliminated.

These reintroductions, and those conducted by other conservation organisations and state government agencies, have made a major contribution to the recovery of threatened mammals in Australia. A recent paper by Professor John Woinarski and colleagues found that reintroductions to safe havens and/or intensive predator control had turned the tide of extinction for 11 Australian mammal species, nine of which are currently protected by AWC. This important work continues, with AWC planning to add another three threatened mammals to the safe haven network in 2023: the Northern Bettong (*Bettongia tropica*, listed as endangered); the Plains Mouse (*Pseudomys australis*, listed as vulnerable); and the Golden Bandicoot (*Isodon auratus*, listed as vulnerable). AWC is also following up our 2022 translocation of the critically endangered Central Rock-rat (*Zyomys pedunculatus*) to Newhaven, with a supplementary release of animals raised in the breeding program at Alice Springs Desert Park. Reintroductions can also help maintain or increase genetic diversity and adaptive capacity in threatened species, which is important for their long-term persistence.



Studies have shown that reintroduced populations established from two or more island populations (each of which has lost some genetic diversity) can become more genetically diverse than those remnant populations. Further, reintroductions can ensure that species are exposed to a broader range of environmental conditions than those experienced in remaining habitats. For example, a number of threatened mammals that once occurred across vast areas of inland Australia – such as the Woylie (Brush-tailed Bettong, *Bettongia penicillata*), Numbat (*Myrmecobius fasciatus*), Red-tailed Phascogale (*Phascogale calura*) and Chuditch (Western Quoll, *Dasyurus geoffroii*) – have contracted to south-west Western Australia, a moderately well-watered and climatically stable bioregion. AWC has reintroduced these species to one or more locations in semi-arid parts of their former ranges, re-establishing selection for genetic traits that facilitate persistence in these harsher, drought-prone environments.

AWC's ambitious reintroduction program is part of a growing global movement, sometimes called 'rewilding', whereby conservationists are returning species to ecosystems from which they've become extinct due to hunting, habitat loss or degradation, or other pressures. In 2022, AWC was invited to present at the First Global Meeting of Conservation Translocation Practitioners, in Spain, alongside conservation organisations working in Europe, Africa, Mauritius, India, Argentina, and the USA, with iconic species such as tigers, jaguars, lynx,

rhinos, and raptors. As AWC's Chief Science Officer, I was fortunate to present on the Australian context to the meeting, drawing on AWC's experience, with input from other Australian practitioners including Dr Kath Tuft from Arid Recovery; Associate Professor Katherine Moseby and Dr John Read from Mallee Refuge; Peter Copley from South Australian Department of Environment and Water; and Professor Adrian Manning from ANU/Mulligans Flat. I came away from the meeting with the following observations:

1. The practice of conservation translocations, or 'rewilding', is a global movement of substantial conservation and social importance.
2. AWC's work fits right in – our program, appropriate in the Australian context, has strong conceptual links with the broader movement.
3. We share many aspects of our conservation model with other programs.
4. 80% of the 'take-home-messages' were similar across all continents/projects:
 - translocations have major conservation value – many species have been and are being saved from extinction, and ecosystems are being restored;
 - reintroductions have a positive social value to local communities and the broader society;
 - there appears to be a common set of organisational values amongst conservation translocation practitioners, including vision, commitment, 'getting stuff done', agility and pragmatism; and
 - risk-aversion by authorities was identified as a major constraint across many projects.
5. Of course, some issues aren't shared – in Australia, fortunately, we don't have to protect our staff against poachers, our translocated species don't usually eat people or raid crops, and we can use a Cessna, rather than a Boeing 747, to translocate species across the continent.

Following on from this meeting and related work, AWC has been looking to strengthen cooperation with a number of our international counterpart organisations, with a view to mutual development. One of the first initiatives that may emerge from this network is a training program for future conservation leaders, drawing on the lessons of AWC and other contributing parties – more to come.

Help AWC continue to be a global leader in wildlife reintroductions

Your gift will help AWC secure populations of threatened species and safeguard them from extinction



Wildlife reintroductions across Australia in 2023

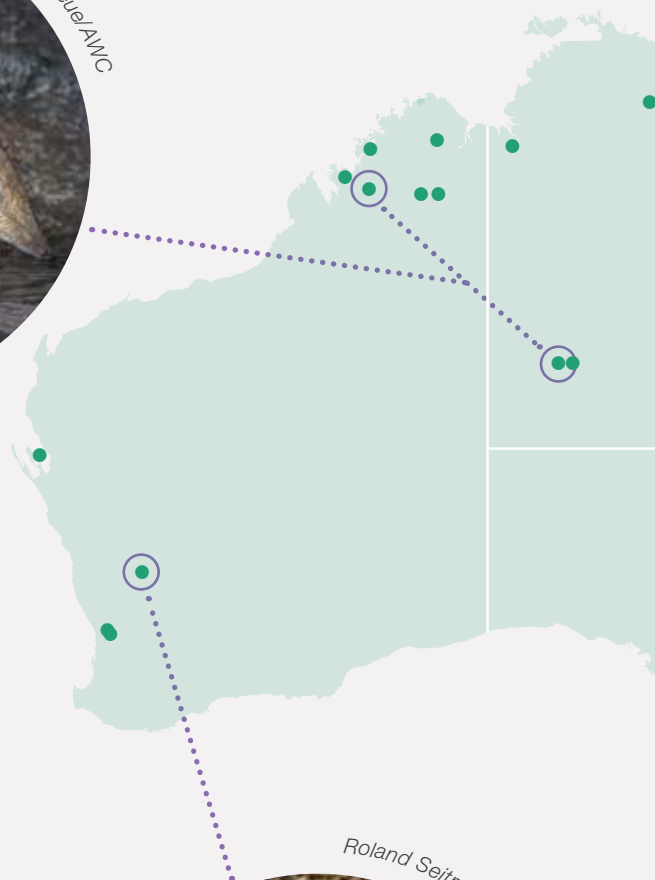
Australian Wildlife Conservancy's wildlife translocation program spans the continent. A series of significant mammal reintroductions is underway this year, involving all our regional teams and made possible by AWC's national network of feral predator-free safe havens. Establishing secure populations of threatened species helps safeguard them from extinction and is an important step towards restoring healthy, functioning ecosystems.

Golden Bandicoots return to central Australia

Bandicoots have been snuffling through the Australian undergrowth for 30 million years, digging up roots, grubs, eggs and termites and hunting for spiders, centipedes and small reptiles. In the last 250 years, populations of these small, ground-dwelling marsupials have been ravaged by feral cats and foxes; at least seven species have been wiped out. The Golden Bandicoot was formerly found across millions of hectares of arid and semi-arid areas from western Victoria and NSW to the coast of Western Australia, but it has been extirpated from 95% of its historical range. The species now survives in a handful of island populations and in the complex rocky ranges of the Kimberley. At Charnley River-Artesian Range Wildlife Sanctuary, AWC ecologists have undertaken extensive targeted trapping surveys over the past three years to map the distribution of the bandicoots. Meanwhile, plans have been developed to re-establish a population at Newhaven Wildlife Sanctuary, on the other side of the Tanami Desert. Newhaven hosts one of mainland Australia's largest feral predator-free safe havens, where six locally extinct mammal species have already been reintroduced and are becoming established. Golden Bandicoots were last reported from the Tanami Desert in the mid-1960's.



Brad Leue/AWC



Chuditch released at Mt Gibson

The reintroduction of the Chuditch (or Western Quoll) to Mt Gibson Wildlife Sanctuary represents the second species to be released outside the fenced safe haven at the site, after Brushtail Possums, first released there in 2021. As the largest marsupial carnivore in WA, the return of this native predator to the landscape is significant, as predators have a disproportionate influence on how ecosystems operate. Alongside ground-based radio tracking, AWC is working with Wildlife Drones to carry out aerial tracking of some of the quolls, a subset of which have been fitted with VHF-transmitter collars. Eleven Chuditch were involved in the initial translocation from Julimar, with supplementary releases planned in coming years. The Chuditch release marks the tenth species to be reintroduced to Mt Gibson Wildlife Sanctuary, to our knowledge the highest number of species ever reintroduced to a single site.



Roland Seitre/Minden Pictures

Wayne Lawler/AWC



Northern Bettong translocation to Mount Zero-Taravale

The Northern Bettong is among the most highly threatened Australian mammals. With two populations remaining (and fewer than 1000 individuals in total), this tropical fungivore was recently included among the federal government's list of priority species under the Threatened Species Action Plan. AWC's long-running wet sclerophyll restoration project has been preparing the ground at Mount Zero-Taravale Wildlife Sanctuary for the return of the Northern Bettong for over 15 years, through the re-establishment of a regular, low-intensity fire regime to open up and reinvigorate the grassy understorey. In May, the AWC team will conduct a critical translocation of this species with up to 55 founders from the Lamb Range and Mount Carbine populations.

Pilliga reintroductions continue

In late 2022 we bid good riddance to Rambo the fox in the Pilliga, bringing to a conclusion the three-year battle to clear the 5,800-hectare safe haven of feral animals. The feral-free status triggers the next phase in the reintroduction program at the site, where AWC is working in partnership with the NSW National Parks and Wildlife Service. Threatened species including Bilbies, Bridled Nailtail Wallabies and Brush-tailed Bettongs which had been reintroduced into a smaller 680-hectare breeding area in the western part of the safe haven have now been given access to the larger area. Two additional species, the Plains Mouse and the Shark Bay Bandicoot, are slated to join them in 2023.

Wayne Lawler/AWC



Brad Leve/AWC



Red-tailed Phascogales return to Scotia

In 2021, AWC helped establish a captive breeding program for the Red-tailed Phascogale at Adelaide Zoo with animals sourced from wild populations in the south-west of Western Australia. This program has proven very successful, and the resulting population has become a source for recent reintroductions to both Newhaven Wildlife Sanctuary and Mallee Cliffs National Park. In 2023, AWC will release the first of three cohorts of Red-tailed Phascogales to Scotia Wildlife Sanctuary in western New South Wales, returning these small, arboreal predators back to the mallee. This reintroduction is made possible by \$115,000 in funding from the NSW Department of Planning and Environment's NSW Environmental Trust.



Ngalurrju Custodian Isobel Gorey participates in the Great Desert Skink Ranger exchange on Ngalurrju in 2022. Naomi Lewis/AWC



‘Working two-ways to protect country and culture’ at Ngalurrtju

*DR DANAE MOORE, WILDLIFE ECOLOGIST
STEVE ELDRIDGE, OPERATIONS MANAGER
NAOMI LEWIS, INDIGENOUS RANGER COORDINATOR
SHANE MCMASTERS, LAND MANAGEMENT OFFICER*





Ngalurrjtju supports 308 km² of the semi-saline spinifex sandplain vegetation community preferred by the Great Desert Skink (*Egernia kintorei*) – a large area to search for a 30 cm long lizard living underground. Brad Leue/AWC

‘Working two-ways to protect country and culture’ - this is the statement that has been decided on by the custodians of the Ngalurrjtju Aboriginal Land Trust, to represent the meaning of the partnership with Australian Wildlife Conservancy. The partnership has made good progress since it commenced in 2022.

A strong team of land management officers and ecologists has been established and is on the ground doing the hard work of setting up the operations base and conducting the first surveys and land management activities under the partnership. Regular planning meetings and community engagement is providing space for genuine two-way planning, learning and conservation.

The Ngalurrjtju team is continuing to engage with the surrounding communities of Papunya and Laramba and there is a high level of interest from community members wanting to join the conservation land management work as rangers. At the first steering committee meeting in November 2022, Ngalurrjtju Custodians and steering committee members were happy to see the results of AWC working hard to tidy up the old Mt Wedge Homestead. There were a lot of insightful contributions to the work plan for a busy year in 2023.

Looking for Tjalapa

One of the initial priorities at Ngalurrjtju is to confirm the presence of some of the threatened species predicted to occur there. In recent months, much of the attention has been on tracking down the Great Desert Skink (*Liopholis kintorei*), a large, nocturnal lizard. It is known by a number of different names in Aboriginal languages: on Ngalurrjtju, Luritja/Pintupi speakers call them *Tjalapa* and on Newhaven the Warlpiri language name is *Warrarna*. It’s called *Mulyamiji* in the Manyjilijarra language spoken by Martu, and *Tjakura* in many other desert languages.

In October 2022, the Ngalurrjtju team and the Newhaven Rangers got together to share knowledge about Great Desert Skinks, to assist Ngalurrjtju Custodians in finding any existing populations on Ngalurrjtju. After learning about preferred habitat and how to identify Great Desert Skink warrens at Newhaven, the team searched similar habitat at Ngalurrjtju. In this region, Great Desert Skinks are found in semi-saline spinifex sandplains, a vegetation community which covers 308 square kilometres on Ngalurrjtju. The possibility of chancing on a Great Desert Skink warren could have been slim, but signs were soon identified after searching at three sites. In total, the team located six active warren systems, each with sign of male, female and juvenile individuals. Ngalurrjtju Custodians were thrilled to know that this threatened species still persists on their Country.

In November 2022, members of the Ngalurrjtju team and the Newhaven Ranger team attended the Indigenous Desert Alliance (IDA) Conference at Yulara, an annual event where First Nations ranger groups from across the desert get together to present their achievements, learn from others, share stories and connect with one another. More than 370 Indigenous Rangers took part in the 2022 conference. Ngalurrjtju Wildlife Ecologist, Danae Moore, helped to run a workshop aimed at upskilling rangers in techniques to manage and monitor Great Desert Skinks.

In March 2023, the Ngalurrjtju team was involved in the first ever ‘Mulyamiji March’. Coordinated by IDA, this is a collaborative national monitoring event where 15 ranger teams across three states monitored around 50 separate sites for active Great Desert Skink burrow systems. It’s the start of a decade of planned annual monitoring across the species’ range, gathering valuable data which will be used to track national trends and inform recovery actions.

“Us Rangers, we know where Warrarna living. So we look between the salt lake and the sand dunes, we know where they are. Warrarna lives with its family in one



Tjalapa (the Great Desert Skink) is an unusually social species of lizard which lives in communal burrow systems with a shared latrine on the surface.
Joe Schofield/AWC

burrow. Mum and dad look after them. Sometimes dad goes out looking for a feed and make another burrow then comes back and they make scat on one place. So there's different scat you can find next to the burrow, there's a big one, small one and the baby one."

- Christine Ellis, Newhaven Ranger, quoted in Draft National Recovery Plan for the Great Desert Skink 2022 - 2032

Great Desert Skinks are unusual among reptiles in showing dedicated parental care. They are highly social, living in extensive communal burrow systems which provide a safe, thermally stable refuge. The burrows are also used by other animals like the Brush-tailed Mulgara (*Dasymercus blythi*). The major threats to Great Desert Skinks are extensive fire that removes all groundcover and predation by feral cats and foxes. AWC teams at both Newhaven and Ngalurrjtju will carry out targeted prescribed burning and predator control to protect known populations of Great Desert Skinks.

Infrastructure upgrades

In early 2023, the Ngalurrjtju team worked to prepare the former Mt Wedge homestead building for the installation of reliable electricity. The rewiring will enable the installation of new lights, power points, and (critically) air-conditioning, making it fit for purpose as an operations base for the surveys and land management work planned for this year. Extensive grading of the existing roads network has been carried out by long-time AWC employee and Ngalurrjtju Custodian Duncan Jangala to re-open the network of tracks across Ngalurrjtju, in preparation for prescribed burning operations getting underway in the cooler months.

Vegetation mapping & weed control

A ground survey was carried out over several days in spring of 2022, with rapid assessment of landform, soils,

and dominant vegetation along roads and tracks across Ngalurrjtju. Around 460 vascular plant taxa have been recorded on Ngalurrjtju (a total that includes ten introduced plant species). Fortunately, the occurrence of weeds is minimal, apart from a significant expansion in buffel grass (*Cenchrus ciliaris*) since the 1980s, and outbreaks of hairy-flowered lovegrass (*Eragrostis trichophora*). With the exception of buffel grass, most weeds are confined to roads and tracks and old cattle yard sites. In December 2022, after the first summer rains the Ngalurrjtju team launched a major assault on weeds around the operations base along the main access roads, which involved spraying and manually removing buffel grass and hairy-flowered lovegrass. A long-term strategic commitment will be required to stop these weeds from spreading any further across Ngalurrjtju.

Fire follows rain

In the desert, wetter years are invariably followed by years where fire is more widespread in the landscape. Above-average rainfall has been recorded on Ngalurrjtju for the past two years, with wet conditions continuing into 2023. Planning for prescribed burning at Ngalurrjtju in 2023 includes extensive, strategic landscape-scale burning over winter to reduce the impact of large wildfires during the warmer months. Huge wildfires in the nearby Tjoritja/ West-MacDonnell National Park in March 2023 burned through more than 100,000 hectares, underscoring the risk of wildfire after periods of above-average rainfall and the negative influence of buffel grass, which fuels hotter and more extensive fires.

AWC and the team at Ngalurrjtju are working together to deliver best-practice fire management, which combines traditional knowledge, with over a decade of effective fire management techniques refined at Newhaven.



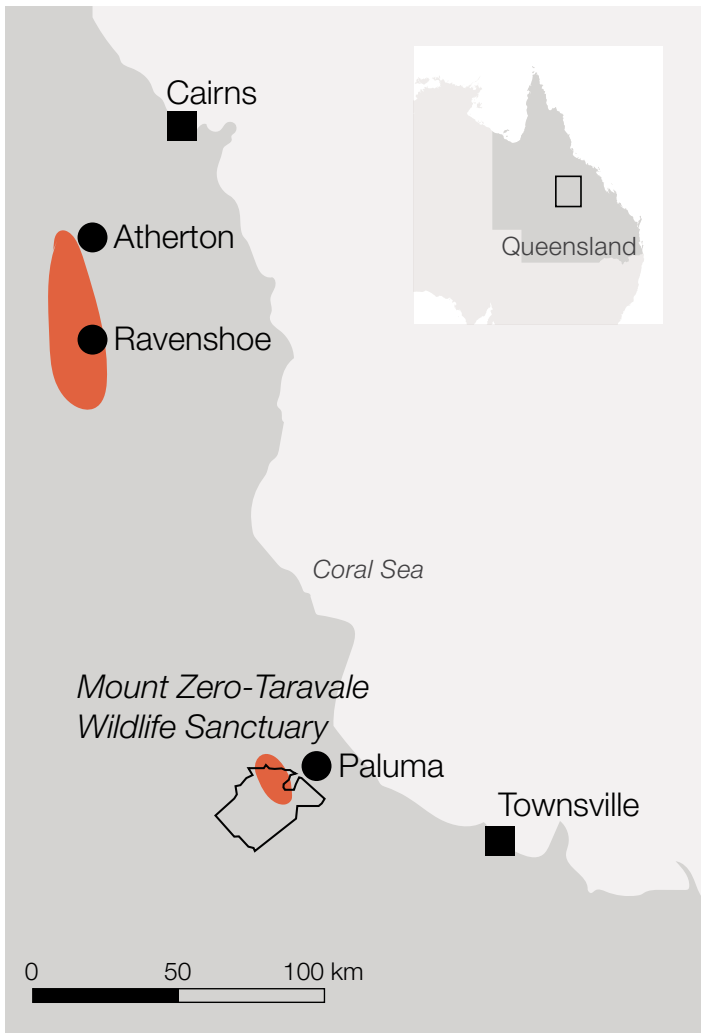
A brightly coloured male Magnificent Brood Frog (*Pseudophryne covacevichae*) photographed at AWC's Mount Zero-Taravale Wildlife Sanctuary. The species was first discovered on the sanctuary in 2014. Pat Webster



Finding frogs in Queensland's forests

*EMILY RUSH, PHD CANDIDATE
JESS TEIDEMAN, SCIENCE WRITER*





From deep in a grass tussock at Mount Zero-Taravale Wildlife Sanctuary in Queensland's Paluma Range, comes the croaking 'arrk' of the Magnificent Brood Frog (*Pseudophryne covacevichae*). It's calling in response to a yell of "hey, frog" from ecologist Emily Rush, who is studying the species as part of her PhD at James Cook University.

First found near Ravenshoe and Herberton on the Atherton Tablelands and only described in 1994, there is very little known about this cryptic, endangered species. In 2013 they were found in the Paluma Range by James Cook University researchers, extending the known distribution to the south by 160 kilometres, and in 2014 AWC ecologists confirmed the species' presence at Mount Zero-Taravale for the first time. The upland sclerophyll forest at the sanctuary turns out to be a southern stronghold for the frogs.

Supported in the field by AWC, Emily's research aims to resolve the geographic distribution of the species, and includes genetic analysis to determine the connectivity between populations and their overall health. Through her fieldwork, Emily hopes to reveal the environmental preferences of these tiny frogs and assess the threats to their conservation. By supporting this project, AWC will better understand how to improve our monitoring programs at Mount Zero-Taravale, and refine our land-management practices to preserve the habitat in which they live.

Magnificence in micro

'Magnificent' is a great descriptor for this little frog, which grows to only three centimetres and weighs about half as much as a five-cent coin. Like some other members of the genus *Pseudophryne* they are brightly coloured, with a reddish-brown body and upper arms of vibrant yellow. They also have a bright red triangular patch extending from the upper snout to the forehead, which continues in a line along the back, ending in a bright yellow stripe. Their belly is mottled black and white in a unique pattern that can be used to identify individuals.

Magnificent Brood Frogs inhabit shallow, ephemeral drainage lines along small streams in open eucalypt woodlands above 700 m elevation. During the wet season, they frequent grassy tussocks and leaf litter in these areas to call for a mate and lay their eggs. The short call of the males can be heard on warm, wet nights from October to May. The female lays her eggs in a small cluster under moist leaf litter along a drainage line or near a shallow creek. The nest is built by the male and tadpoles hatch out into flowing water after rains flood the nest.

Finding a tiny frog in a big forest

Targeted surveys were first conducted at Mount Zero-Taravale in 2021 when acoustic monitors were used across the property to identify additional populations. These surveys resulted in an increase of known sites



[Top right] The marbled belly is unique to each individual and can be used as an identifying feature. *Emily Rush*

[Bottom] During genetic sampling each frog is carefully weighed and measured. *Mel Christi*



from six to 12, making the sanctuary a stronghold for the species and underscoring the importance of the area as home to the largest known population location.

Finding the frogs in the tall, thick grass can be difficult, but the males are known to be very vocal during the wet season, and very territorial, often competing with one another to be the loudest in the landscape. Any noise made while looking for them in the sclerophyll forests often results in a vocalisation, which can be used to pinpoint a location.

Previous records consisted only of the more conspicuous males, but during surveys in 2022, Emily identified female Magnificent Brood Frogs for the first time, when she found paler individuals alongside calling males and near breeding sites.

Looking to the future

Consistent monitoring of the Magnificent Brood Frog population at Mount Zero-Taravale will be critical in the coming years and decades, as they face changing conditions.

Overall, the outlook for wet tropics frog species is sombre; models forecast that up to 35% of the region's amphibians are likely to decline under projected climate scenarios. As terrestrial breeders, Magnificent Brood Frogs rely on soil moisture and access to standing water

for breeding success. Occupying a fragmented range in a narrow altitudinal band may put the species under increased pressure.

Known threats to the species include habitat loss and degradation through grazing, changed fire regimes, and road and infrastructure development. Grazing and trampling by feral herbivores have the potential to degrade the seepage areas and grasses used by the frogs for breeding. Roads and development can alter the water quality of an area and may affect seepage areas and streams.

Mount Zero-Taravale is a reliable refuge for the species as it is protected from development and it is actively managed for cattle and fire.

What is AWC doing?

AWC has implemented an ecological burn program on Mount Zero-Taravale, and continues to manage cattle and pigs through our feral herbivore management program. AWC has fenced feral cattle out of Magnificent Brood Frog habitat, and we conduct pig management as required.

Scan here to view an AWC *in Conversation* webinar with Emily about her research



Biobanking: putting Australian wildlife on ice

DR JENNIFER PIERSON, SENIOR ECOLOGIST

It is almost like magic, getting to look inside the cells of a critter and seeing the DNA that contains the instructions for life. Patterns in DNA tell the story of an organism's history, patterns of relatedness within and among populations, as well as how it moves around the landscape. All of this from a tiny two millimetre tissue sample, a few drops of blood, or even a few hair follicles.

One of the incredible things about the work that AWC does in remote regions across Australia is the ability to collect different types of genetic samples from animals, contributing to new knowledge and better conservation decision-making. As AWC and our work grows, so has our collection of tissues from the diverse wildlife we monitor, leading to a collection of almost 10,000 tissue samples as well as scat, hair, and sometimes even whole specimens, stored at properties across the country. While samples are stored in ethanol to protect the DNA inside from breaking down, long-term protection of this precious resource requires proper curation – that means quality freezers that do not thaw out and refreeze (which damages the DNA), proper labelling, organisation, and recordkeeping. Needless to say, a big job.

This collection is used across several of our programs. For example, in the Kimberley, we have been working towards confidently identifying Northern Brown Bandicoots (*Isodon macrourus*) and Golden Bandicoots (*Isodon auratus*) in the hand so we can track the distribution, occupancy, and abundance of these species in the region. For the last few years, we have been working with the Australian Museum to provide a species identification based on tissue samples collected from each individual caught. After collating years of data, field ecologists have found there are indeed some morphological differences in body size between the two species that will allow our teams to distinguish these populations. Regular monitoring in the Kimberley provides the opportunity to collect tissue from poorly understood species, highlighting important cryptic diversity that needs conservation.

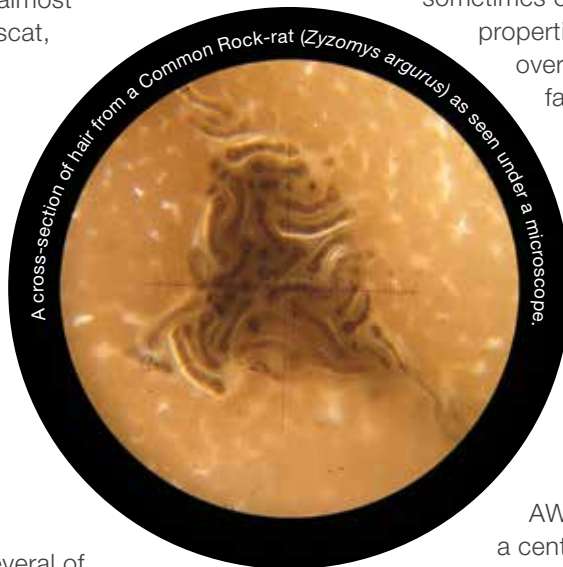
Future proofing our deposits

As AWC moves into metapopulation management of several species in our translocation program, we can conduct genetic studies at the national scale, with one sample providing management direction for several sanctuaries or partnership sites at once. The Numbat (*Myrmecobius fasciatus*) samples collected in translocation programs for Mt Gibson and Mallee Cliffs are providing both a baseline assessment of the genetic health of the founding populations in these new populations, as well as a health check of the Scotia population where some of the founders were sourced. The coordination of analyses across properties, sometimes on both AWC and partner

properties, provides a more informative overview of how the populations are faring – but also requires years to build the sample collection for evaluation. Improper storage can lead to samples failing when it comes time to sequence them due to the degradation of the DNA. Given the scarcity of access to tissue for these rarely-handled species, the cost of proper storage is a wise conservation investment.

The next phase of managing AWC's tissue collection is establishing a centrally-managed National Tissue Storage Collection. The recent floods at

Mornington highlight the vulnerability of these irreplaceable samples being stored in remote field locations. At any time, electricity failures – even for a short time – can cause damaging cycles that may reduce the quality of the sample long-term. By moving the samples to a central location, we will be able to ensure high-quality storage and curation of the samples and facilitate the use of samples by the wider conservation and research community.



Help AWC continue to collect samples in the field

Your gift will help AWC make a major contribution to the research and conservation of Australia's threatened biodiversity





[Top] Dr Jennifer Pierson collects a sample from a Central Rock-rat (*Zyomys pedunculatus*) during a recent translocation of the species. Brad Leue/AWC
[Bottom] Samples collected from species such as the Numbat (seen here) enable ecologists to monitor their overall genetic health and diversity. Jane Palmer/AWC

Listening up for Koalas

*ANDREW HOWE, SENIOR FIELD ECOLOGIST
NAHRAIN JOHN, COMMUNICATIONS ASSOCIATE*



[Center Circle] Subtropical rainforest and wet sclerophyll forest at Curramore Wildlife Sanctuary, south-east Queensland. *Wayne Lawler/AWC*

[This page] Bioacoustic monitoring will help provide AWC ecologists with new insights into Koala populations on Mount Zero-Taravale and Curramore Wildlife Sanctuaries. *imageBROKER/Alamy Stock Photo*

The Koala (*Phascolarctos cinereus*) is an icon of Australian nature, ubiquitous in tourism campaigns and popular culture. Yet, ironically, these well-known tree-climbing marsupials are a lot harder to find in the bush. When it comes to Koalas on AWC's Curramore and Mount Zero-Taravale Wildlife Sanctuaries in Queensland, incidental sightings, images on camera traps, as well as scats and scratches, confirm they persist, but we don't know much else about the status or trends of these iconic species. Spending most of their time motionless high in the canopy, Koalas pose a real challenge for ecologists monitoring them, especially across the steep terrains of Curramore and Mount Zero-Taravale. Now, a new approach that relies on the Koalas' repertoire of growls, grunts and barks offers the prospect of unlocking important data essential to the protection of this endangered species on AWC sanctuaries.

For most animal species, conventional survey methods that use baited cage traps or camera traps are an effective means of surveying at scale (capturing data on a large number of species over vast areas). However, given Koalas spend most of their time off the ground and are not attracted to food bait, these techniques are not effective. In the past, ecologists have explored other methods to survey at scale, including spotlighting transects and working with specially-trained detection dogs that sniff out fresh scat and the scent of animals up above. In 2021, four individual Koalas were observed during spotlighting transects across the 196-hectare Curramore, which was identified to be a part of a Koala Priority Area by the Queensland Government in 2020. Detection dog surveys also picked up an increase in Koala activity on the property from 2015 to 2022. While these surveys offer an intriguing glimpse into Koalas on Curramore, the picture remains incomplete. The AWC team is eager to establish better understanding of the distribution and population density of Curramore's resident Koalas, and to investigate any threats. Across the 58,000-hectare Mount Zero-Taravale, targeted monitoring has not yet been undertaken, but incidental sightings and images on camera traps indicate a persisting population on the sanctuary.



Continuing large-scale monitoring

Thanks to a \$179,211 contribution from the federal government's Koala Conservation and Protection Grant, AWC is hoping to learn a lot more about its

Koala populations by deploying bioacoustic monitors across suitable Koala habitat at the two sanctuaries. By high-tech 'listening', ecologists hope to conduct larger-scale monitoring of the species and establish baseline data about the presence and abundance of Koalas on sanctuary. At Curramore, ecologists will also use thermal drone surveys to compare the effectiveness of both technologies.

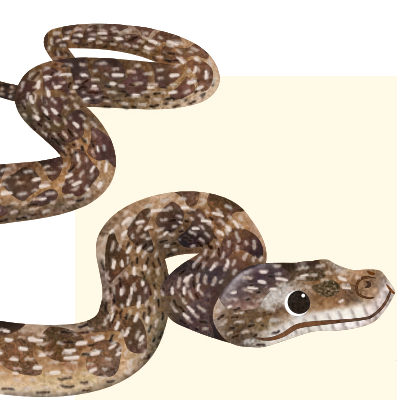
Andrew Howe, AWC Senior Field Ecologist who is leading the bioacoustic research at Curramore and Mount Zero-Taravale, said that although Koalas are such a famous Australian species, very little is known about their ecology, distribution and threats in the northern extent of their range.

"Curramore Wildlife Sanctuary is the largest nature refuge on the Sunshine Coast and is a geographically significant habitat corridor linking habitat from Maleny National Park in the west to other nature refuges and Koala habitat in the east," Andrew explained.

"The sanctuary could potentially sustain an important population in the context of the broader region – but we need to do research to better understand local population dynamics."

"Meanwhile, at Mount Zero-Taravale, monitoring will form the baseline for Koala population estimates on the property. We plan to undertake ongoing monitoring as part of AWC's Ecohealth program which will include monitoring the species every two-to-five years to determine if the populations are stable, increasing or decreasing. If the population is decreasing, we will then undertake specific targeted research to determine what is driving the decline and then mitigate any threats as much as possible."

AWC is embracing innovative technologies to enhance our ecological monitoring and conservation work. Bioacoustic monitoring is a relatively new tool that is increasingly being utilised across AWC sanctuaries to complement conventional survey methods. In the north-east region, AWC is using bioacoustics to survey for microbats at Mount Zero-Taravale and Curramore, and the Magnificent Brood Frog (*Pseudophryne covacevichae*) at Mount Zero-Taravale. Acoustic recorders are useful to monitor cryptic species that vocalise during the breeding season, or which are most active at night, like frogs. The devices can be left out in the field for extended periods of time, allowing AWC ecologists to collect a high volume of quality data more efficiently than ever before.



Inspiring the next generation

AVA LAWLER, CHIEF MARKETING AND COMMUNICATIONS OFFICER



**» *Education is the most powerful
weapon which you can use to
change the world.* «**

Nelson Mandela

One of the great joys in life is watching the face of a young child light up when sparked with delight and intrigue. Children are inherently in awe of our natural world, and yet in Australia, they are still taught about only a fraction of our native animals.

Australia is home to some of the most unique (and adorable) animals in the world and if we are to effectively conserve our precious wildlife, we need to foster a world where Australia's biodiversity is valued and effectively conserved by an engaged community. Educating our children – from the earliest years possible – about our unique wildlife will inspire our new and emerging generations to care for our country.

AWC is proud to share news of a significant and exciting partnership with Affinity Education Group (AEG) that will engage young children in the wonders of our native wildlife. Affinity Education Group is one of Australia's largest providers of early education and childcare with more than 220 childcare centres, kindergartens, preschools and Out of School Hours Care (OSHC) locations across Australia.

The 'Aussie Wildlife Champions' program has been co-developed by Australian Wildlife Conservancy and Affinity Education Group, bringing together a powerful combination of conservation and education expertise.

The educational program, designed for 3-to-5 year old children in the Affinity Education Centres, is currently being rolled out across the country as part of Affinity's Lifelong Learning Curriculum. More than 2,400 Affinity educators have already been engaged with the launch of their Lifelong Learning Curriculum and the enthusiasm for the programs, including Aussie Wildlife Champions, is really exciting.

"In developing our Lifelong Learning Curriculum, we have been so pleased to partner with an organisation as well-respected as Australian Wildlife Conservancy," said Dr Lesley Jones, Head of Education and Pedagogy for Affinity. "Together we have produced a very special program for young children. Raising children's awareness of our unique Australian animals and their habitats and how we can all play our part in their protection is so important."

Beyond the Kangaroo and Koala, there are a wealth of fascinating native animals that delight Australians of all generations. By leveraging the intuitive joy young children have for animals that 'bounce', 'beam' and 'bite' we can generate affection and educate them on the principles of biodiversity and conservation.

The Aussie Wildlife Champions program will excite children with videos, activities, and information on lesser-known animals such as the Quoll, Numbat, Bettong, Native Bee and Malleefowl and it will also share insights on some childhood favourites such as the Koala, Kangaroo and Crocodile. The series, which will



be launched to the public in June, will also highlight the importance of biodiversity and the ways we can all help to conserve habitats and protect species.

The restorative impacts of our natural environment are widely documented, and this program aims to connect children to nature early. By encouraging an inquisitive approach to the natural world, we hope to provide a regenerative force for our young people while fostering a love, and care, for our Australian landscapes.

Environmental Education, for Kids

In addition to the Affinity childcare centre activities, four educational sets will be provided to the public via AWC's Kids' Corner and the AEG website.

Sparked by the delightful illustrations created by AWC's talented in-house designer, Judy Moosmueller, the AWC Kids' Corner brings to life the personality of some of our overlooked native species. Since launching in 2022, the AWC Kids' Corner has grown in its representation of our unique wildlife with profiles for the Eastern Pygmy Possum, the Gouldian Finch and the Western Quoll, engendering affection for a broader range of Australian natives. We are continually adding new craft activities – including the recent launch of Bilby Ears for school Easter Hat Parades – and have plans for lots more educational videos too.

AWC's early adventures into conservation education have attracted keen interest with over 17,000 views of our Kids' Corner already. This immersive partnership with AEG will further boost engagement with young children, families, and educators and help ensure the next generation understands the critical principles of conservation and biodiversity.

In the meantime, if you have a budding young conservationist in your midst, scan this barcode or visit our website for lots of Aussie wildlife fun.

Scan here to learn more about our Kids' Corner





Peter Stanton is a landscape and fire ecologist, botanist, biogeographer, conservationist, the first Australian recipient of the International Union for Conservation of Nature's Fred Packard Award, and AWC's longest-serving employee.



[Top] Peter Stanton at Eubenangee Swamp National Park, December 2004. *Matthew Stanton*

[Bottom] Tropical montane rainforest at Brooklyn Wildlife Sanctuary, North Queensland. *Wayne Lawler/AWC*

A lifetime of conservation

TIM ALLARD, CHIEF EXECUTIVE OFFICER

This year, senior ecologist Peter Stanton celebrated 20 years of working with AWC. There is little that can be written that will come close to the contribution Peter has made, not only to AWC, but to conservation in general – particularly in North Queensland.

He has been, and continues to be, a mentor to many, an advisor without equal, and a champion of landscape conservation. In further recognition of his contribution to conservation, Peter has this year been acknowledged by the awarding of an honorary Doctorate by James Cook University:

This award is in recognition for the “outstanding achievement in the field of plant and forest ecology and conservation planning in northern Australia and throughout Queensland, which has contributed to the conservation of the Wet Tropics World Heritage Area, and the exceptional service you have rendered to James Cook University”.

Peter’s career began in the Queensland Forestry Department. In 1963 he was appointed Assistant District Forester in Mackay. It was there he watched as, in the space of just five years, bulldozers with chains strung between them turned 1.5 million hectares of Brigalow Forest into open plains. The same time period saw the disappearance of most of the lowland swamps and forests of the state’s Wet Tropics.

As a then-forester within the Queensland Forestry Department his concern about the rapid rate of land development was noted by the Department. At that time, national parks in Queensland were created and managed under the Forestry Act. In 1967 he was transferred to the National Parks Branch of the Department and allowed to pursue a statewide project to identify areas that would be representative of the state’s biodiversity and protect its most outstanding landscapes. As a direct result of that work, a network of significant national parks was created throughout the state. In 1975 a National Parks and Wildlife Service was created and he joined it in 1977.

Leaving the service 20 years later, and while working with the Queensland Wet Tropics Management Authority,

he became increasingly focused on finding ways to lift the standard of management of parks and, just as importantly, to ensure survival of greater areas of high-quality habitat outside them. While he could find no potential solution, unbeknownst to him, that solution had already evolved in the mind of Martin Copley, who was using his private funds to buy land to secure the future of the landscapes and wildlife that he had fallen in love with.

When Peter joined AWC in March 2003, the early part of AWC’s journey had been Western Australia-focused. Expansion into northern Australia was largely a result of Peter’s advice and knowledge of areas that needed protection – along with the need to establish standards of land management that would stand as a model for other land managers, both government and private.

He also offered skills in aerial photograph interpretation and vegetation mapping, knowledge in the sciences of botany and geology, and 40 years of hands-on experience in fire management and ecology, a topic with which he has held an almost lifelong fascination.

Peter spent his early childhood in an outer suburb of Brisbane at a time when bush surrounded the city, and summer fires regularly meandered across the landscape, evoking little concern in the population. However, over the years, attitudes changed and fire exclusion became the dominant aim of land managers. Peter believes the stark lesson from the 2019–20 fires is that the greatest disasters that can befall a forest are wildfires under conditions of extreme weather and heavy fuel, and long-term fire exclusion.

In northern Australia, organisations, and particularly Aboriginal communities and corporations, are demonstrating the value of a return to traditional fire practices, in a contemporary context. With Peter’s help, AWC is part of that movement. It is his hope that AWC can play a leading role in convincing Australians that fire is not to be feared; rather, it is a natural part of the Australian environment, and essential to the ecological health of the woodlands and forests of which it has always been a part.

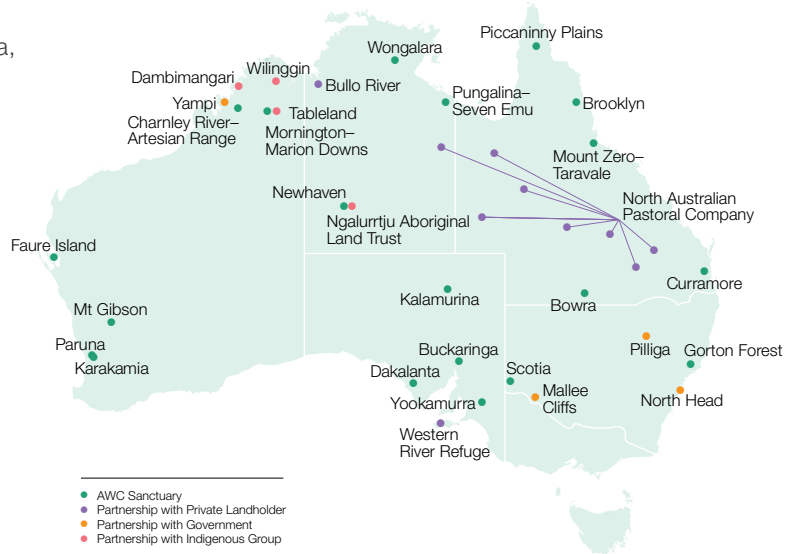
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To help AWC expand the conservation landscape of Australia, I'd like my donation to:

- Support wildlife reintroductions
- Support effective fire management
- Support ecological research
- Support effective feral animal control
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- Support the area of greatest need



You can make a gift on behalf of someone special and send an eGift card via our website.



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- It is your responsibility to advise us if the account or the credit card nominated for transactions with the Australian Wildlife Conservancy Fund is cancelled or changes.