

## **Contents**

03 Message from our CEO

**04** Message from our President

**05** Invasive species: What is the issue?

**06** The invasion curve, explained

**08** Prevention and early action: Yellow crazy ants

10 Prevention: Insect Watch11 Eradication: Smooth newt

**12** Containment: Feral deer

14 Containment: Reclaim Kosci, feral horses

16 Management: Cats and foxes

**17** Ground-breaking project first step to restoring Norfolk Island

18 Weeds and my legacy

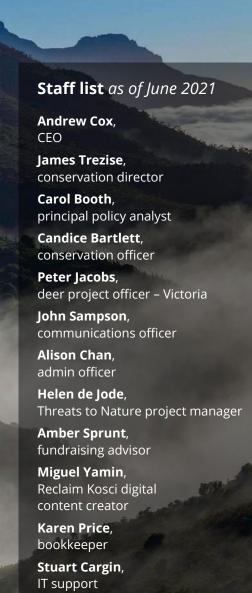
19 Yearly income and expenditure

The Invasive Species Council acknowledges the Traditional Custodians throughout Australia and their connections to land and sea.

We pay our respect to their Elders past and present and extend that respect to all Aboriginal and Torres Strait Islander peoples today.

Above: Narjong Ceremony, Justin McManus.

Cover photos: Main Range, Kosciuszko National Park, Rob Blakers; Gouldian finch, Geoff Whalan (CC BY NC ND 2.0); Christine Milne, Peter Jacobs and Gillian Anderson at the launch of our Tasmanian feral deer report; fox in wetlands, Wayne Butterworth (CC BY-NC 2.0).



Linda Groom,

Bev Job.

Reclaim Kosci assistant (volunteer)

Taskforce coordinator (volunteer)

Townsville Yellow Crazy Ant

INVASIVE SPECIES COUNCIL

## **Message from our CEO**

Looking back over the past year we can see how the Invasive Species Council is once again leaving its mark.

Hard-hoofed invaders have been a strong theme, and rightly so. Our work through the Reclaim Kosci campaign saw feral horses of Kosciuszko regularly in the national spotlight and an unprecedented intervention by federal environment minister Sussan Ley. We have also taken on the two hold-out deer protection states – Victoria and Tasmania – with this work bearing fruit in Victoria.

You will see that we work on many fronts. At the local level, we released our 10-year plan to free Townsville of yellow crazy ants and mapped Norfolk Island's native vegetation. At the national level we set out a plan to overhaul Australia's failing threat

abatement system, the system meant to address major threats like invasive species, habitat loss and adverse fire regimes.

Thanks to our supporters, we were able to expand our team to include a specialist feral deer officer and a conservation director to oversee our major programs.

As we move into our 20th year we remain the primary advocacy group working on environmental invasive species, a massive driver of biodiversity loss. We know we must do more. And with your support, we will!

To another successful year.

**Andrew Cox**, CEO

Australia is in the throes of ecological upheaval and our unique wildlife and wild places are in ever-growing peril. In post-bushfire landscapes the omnipresent, creeping impacts of climate change have increased the risks to nature from invasive species. The threats are growing, but the solutions have not been keeping pace. This is why the Invasive Species Council exists. We are leading community efforts to strengthen Australia's national biosecurity system to better protect Australia's natural environment from these invaders.

Here are some of our recent successes:



The Australian
Government now has a
Chief
Environmental
Biosecurity Officer
with a dedicated focus on
the environment.

Completed the first full year of the three-year Threats to Nature project to overhaul the national system of reducing invasive species and other threats, supported by the Australian Communities Foundation.



Secured
strong
recommendations
in the Australian Senate

in the Australian Senate inquiry into the impacts of feral deer, pigs and goats (an inquiry we triggered).



The Victorian Government released its

Victorian Deer Control Strategy

in late 2020, with an \$18 million investment over the next four years.

# Message from our President

It was a great honour to accept the role of president of the Invasive Species Council in October 2020, knowing that this organisation is at the forefront of efforts to strengthen biosecurity in Australia to better safeguard our unique environment from invasive species. Thanks to the generosity of our supporters, partners and volunteers, Andrew Cox and the team have been able to continue and expand our important work.

Relationships live at the heart of the impact ISC has for our native ecosystems. With our partners in the Biosecurity 2030 Project we are working to have governments, industry and the public recognise a 'decade of biosecurity' where all parties see they have both the responsibility and the opportunity to take action. I am very much looking forward to the COVID-delayed 2nd Australian Biosecurity Symposium in 2022, providing another important step in our work within the Biosecurity Collective.

The ISC Board has recognised the need to grow if we are to meet the expectations of our supporters and the sheer scale of the invasive species threat. There are species and ecosystems we can't get to simply because we don't have the capacity. In early 2021 we embarked on an ambitious program to build our capacity so that we no longer have to 'punch above our weight' because we will have the weight to deliver more knockout blows to protect our environment from the continuing threat of invasives.

**Graeme Hamilton** 



# Invasive species: What is the issue?

Tim Low, Invasive Species Council co-founder, ecologist and author

Owing to its status as an island continent, Australia has exceptional wildlife, renowned the world over. Our marsupials, banksias and other life forms evolved in isolation from the predators and pathogens found on other continents, and that makes them vulnerable to introduced species. To save Australia's wildlife, saving habitat is not enough, and curbing climate change is not enough.

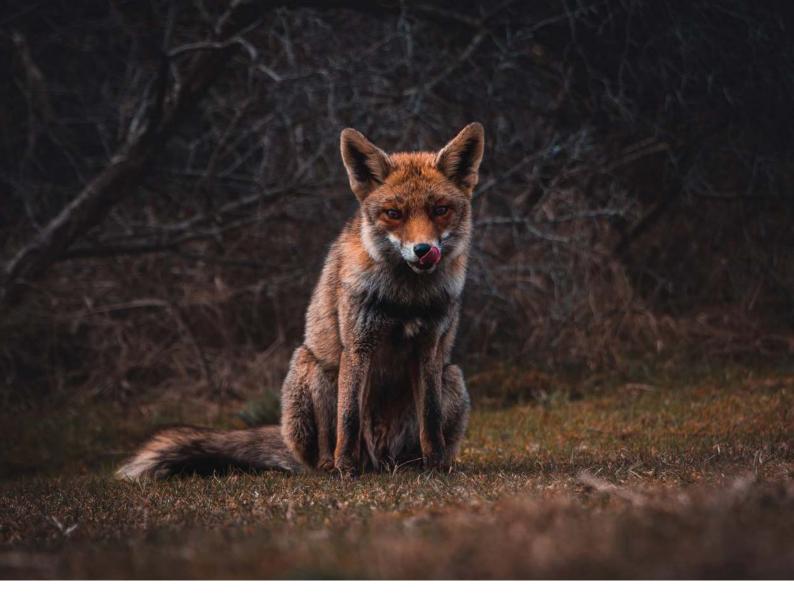
Australia's extinction record makes that clear. According to a 2019 journal article 15 animals have been lost since 1960 and 12 of those extinctions can be blamed mainly on invasive animals and pathogens. The invasive species responsible include wolf snakes, chytrid fungus, foxes and cats.

That article was produced by the Threatened Species Recovery Hub, a consortium of universities and other bodies coordinating research in this area. It reviewed all of Australia's animal and plant extinctions since European arrival to conclude that 43 extinctions were caused mainly by invasive species (including diseases), 31 by habitat loss, and 10 by all other impacts combined.

Species capable of causing extinctions keep entering Australia. Chytrid fungus arrived in the 1970s, wolf snakes in 1987, red imported fire ants in about 2000, myrtle rust in 2010. Three plant species are now critically endangered from the rust.

Extinctions are only one form of loss. Wherever invasive species swamp landscapes we lose something of the very essence of Australia. The waters between Tasmania and Sydney now have stretches of seafloor dominated by New Zealand screw shells (*Maoricolpus roseus*) living at densities of up to several hundred per square metre, at depths of up to 80 metres. Invasive ants, including yellow crazy ants in the Wet Tropics, are forming vast super colonies in which they eliminate other insects. Weeds dominate vast areas, including mimosa, a prickly invasive shrub now in possession of more than 140,000 hectares of grasslands and wetlands on 15 river systems and 3 islands. Four rangers are employed in Kakadu National Park to keep it out. Other weeds include invasive pasture grasses fuelling hotter fires that by killing trees in many places are worsening the impacts of climate change.

As you can see, the continued impacts of invasive species are devastating and the work to tackle this issue is huge. That why the Invasive Species Council was founded by myself and 7 others in 2002. The organisation is determined to lessen the impact of these invaders, and couldn't do this work without its wonderful supporters. Thank you so much for being an important part of our community, fighting for our wonderful, unique country.



## The invasion curve, explained

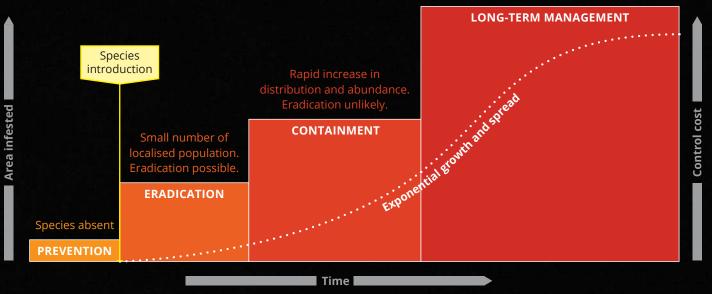
To explain how the issue of invasive species can be tackled effectively, the Invasive Species Council uses the invasion curve – a graph of the invasion process depicting the rising harm and costs as an exotic species becomes established and spreads within its new environment.

After a new species establishes, there may be a period of days, months or even decades during which it is possible to eradicate it – before it becomes too widespread. If a species can't be totally removed, it may still be possible to contain it, preventing it from spreading to the rest of its potential habitat across Australia.

The graphic on the next page shows the invasion curve and specific actions needed at each stage of the curve to prevent or minimise environmental harm. The benefits of preventing an invasive species from establishing, or eradicating it before it becomes widespread, are many tens, if not hundreds, of times greater than the ongoing costs to Australia if we do nothing and allow it to spread.

Invasive species is a wicked problem. The large number of potential interventions reflects the complexities of biosecurity due to the plethora of invasive species and native species at risk, and the multitude of high-risk human activities that must be managed. This is why philanthropic support is so important and urgent, to enable us to continue to tackle these important projects.

Invasives species widespread and abundant Long-term management aimed at population suppression and resource protection.



# Prevent harmful introductions

- Identify high-risk species that could establish in Australia and the pathways by which they could arrive.
- Develop measures to limit the risks of these species and pathways, including contingency plans and import conditions.
- Permit entry only to lowrisk imports, applying the precautionary principle when information is limited.
- Reduce accidental imports of harmful species by working with source countries, applying protective import conditions and implementing strict quarantine processes.
- Reduce illegal imports through public education and a proactive compliance program.

## Eradicate or contain new and emerging invaders

- Conduct surveillance to rapidly detect new incursions.
- Eradicate recently arrived environmental invaders.
- Identify all potentially eradicable harmful invasive species and systematically eradicate the highest priorities.
- For damaging emerging invaders that cannot currently be eradicated, apply containment strategies to prevent them spreading into new locations.
- Ban the trade and movement of invasive species between states and territories unless they have been assessed as low risk for those jurisdictions.

# Minimise the harm of entrenched invaders

- Systematically identify the highest priority invasive species threats and risks to biodiversity.
- Prepare and implement threat abatement plans and other measures to protect Australian species and habitats from invasive species.
- Develop more-effective methods of control, including biological control.
- Assess the costs and the economic and social benefits of safeguarding threatened species from invasive species.
- Develop biosecurity plans for high-value islands that include eradicating harmful invaders.

Photo: Federation Training students



# Prevention and early action: Yellow crazy ants

## **Townsville**

One of the world's worst invasive species, the yellow crazy ant, is a growing problem in and around Townsville (in north Queensland). Funded by the John T Reid Charitable Trusts and a Queensland Government sustainability grant, the Invasive Species Council provided two part-time staff to bolster control efforts by the Townville City Council. From June 2018 to December 2020 the ISC team – together with a dedicated group of volunteers – undertook regular ant treatment and monitoring at Nome and other sites.

"Initially the ants were everywhere," our assistant community coordinator Janet Cross remembers. "They were injuring – and sometimes even killing – animals like kangaroos, dogs and chooks."

The good news is that ongoing monitoring indicates the ants have

been eliminated from Nome. This shows that with the right resources, techniques, partnerships and commitment, these ants can be defeated. The bad news is that there are still several nearby infestations, at Douglas, Mount St John, Black River and Alligator Creek. And while the Townsville City Council continues monitoring and treating the outbreaks, they have only a limited budget for a relentless task.

We have worked with Townsville City Council, Biosecurity Queensland, the Wet Tropics Management Authority and James Cook University to develop a 10-year plan to eradicate yellow crazy ants from the Townsville area. At around \$3.2 million dollars a year the cost is minimal compared to the damage the ants will do to agriculture, tourism and the environment if they continue to spread.

### What's next?

It is clear the Townsville City Council needs help. The ants continue to spread and treatment is just keeping the known infestations at bay. The stakes are high. Only a properly funded eradication program can stop these ants becoming a major threat and spreading further. We need to secure \$3.2 million a year for a jointly funded federal and state government yellow crazy ant eradication program for Townsville.

### **Cairns**

Yellow crazy ants were detected in Cairns in 2001 and a program funded by the Australian and Queensland governments to eradicate them from the Wet Tropics World Heritage Area started in 2020. The program remains on track to achieve eradication of this grave threat to the Wet Tropics World Heritage Area. The project team of 22 staff and 30 contractors is supported by odour detection dogs and a research program with James Cook University, also having strong links to the sugar cane industry, turf farms, plant nurseries, property developers.

Good progress has been made. Some 85% of the 2135-hectare infestation area has been fully treated and is now subject to long-term monitoring and spot treatment. But to fully eradicate the ants will take many more years of painstaking work and the funding to do the job remains insecure. In 2019, by working with local businesses and community groups, the Invasive Species Council helped secure funding until June 2022.

Yellow crazy ants do not bite, but spray formic acid to blind and kill their prey. Once the ants reach super colony levels they can become a severe threat to people, especially children and the elderly, as well as pets. They can damage household electrical appliances and wiring.

An independent review by Melbourne University in 2019 of the program to eradicate yellow crazy ants from the Wet Tropics World Heritage Area found that the ants remain eradicable and that without this program, the socio-economic costs would exceed \$700 million over the subsequent seven years. If left unmanaged, they would put at risk a tourism industry worth \$2 billion a year.

Yellow crazy ants are also a huge threat to agriculture in warmer regions. By farming sugar-secreting scale insects and encouraging sooty moulds, they can dramatically reduce the productivity of crops such as fruit trees and sugar cane.

### What's next?

We need to put pressure on the federal and state governments to jointly fund the \$6 million a year program until the job is done and yellow crazy ants are fully eradicated from the Cairns area. This will be a critical opportunity in the lead-up to the 2022 federal election.



An initiative of the Invasive Species Council, the Australian Biosecurity Symposium will focus on biosecurity prevention and provide the opportunity to share research and innovation, explore outside-of-the-box thinking and exchange knowledge and ideas across the biosecurity collective – biosecurity practitioners focused on protecting the environment, agriculture (animals and plants), pest animals, weeds, wildlife, aquatics and humans. This year's theme is 'a decade of biosecurity: turning a moment into a movement.' We hope you can join us!



The western yellowjacket is a North American wasp. If it made it into Australia, it would be a serious predator of native insects. Photo: Judy Gallagher, CC BY 2.0

## **Prevention: Insect Watch**

Tim Low and the Invasive Species Council have created the Insect Watch portal, which you can explore at **invasives.org.au/insect-watch**. The portal profiles just some of the overseas insect species that would pose significant threats to Australia (environmental and economic) if they ever became established in our country.

Some insects listed (four ants and two bees) occur in limited areas of Australia already — the goal is to see them eliminated entirely or prevented from spreading. The other species are not, as far as we know, found in Australia, although most have been intercepted multiple times at the border.

Portals and guides like this are needed as the Australian Government concedes it can't keep out all the harmful pests roaming the globe. That's where you can help, as all Australians can be part of detecting harmful new pests that might make it to our shores.

Naturalists and nature photographers have much to offer as specialised observers of the tiny bugs and critters around us. They have the skills and interest to notice novel species. Observing and identifying insects is fun, all the more so if it can help save Australia from damaging pests, and it can be done on the go on your smart phone.

Of the foreign insects found inside Australia in recent years only about 14 per cent have been detected at the border by officials checking passengers and cargo. The rest were discovered far from our borders, often when goods were unpacked in a warehouse or home, or out in a field or garden.

There are hundreds of other insects that we must keep out of Australia, including many ants, wasps and bugs. If your insect is not in the Insect Watch portal, don't automatically assume it is a native species. The insects listed on Insect Watch are those that are particularly worrying to Australia's biodiversity and feasible for the non-scientist to identify. Once you have found a suspect insect, you need to report it to authorities for official confirmation. Many of these species are difficult to identify definitively.

If you have strong reasons to suspect you have found something that shouldn't be here, phone the Exotic Plant Pest Hotline: 1800 084 881.

### What's next?

We want to expand our guides to cover more harmful insects and encourage more members of the community to be on the lookout.





## **Eradication: Smooth newt**

In 2013 Australia's governments decided they would not attempt to eradicate smooth newts, which had recently established in waterways in Melbourne's south-eastern waterways, probably after being abandoned as an illegal pet. In failing to take action, our governments were embarking on a dangerous ecological experiment – allowing salamanders, a completely new order of amphibians to this country, to remain in the wild and spread.

Because smooth newts are so different from anything Australian species have encountered before, the potential impacts are hard to predict. But the fact that smooth newts are prolific breeders, have a broad diet and can inhabit many types of habitats is a great cause for concern. They are likely to compete for food and habitat with native frogs and fish, and are potentially carriers of chytrid fungus, which has decimated frog populations in Australia.

Given the ecological risks, the Invasive Species Council, with pro-bono assistance from ecological consultancy, Ecology Australia, undertook surveys in the spring 2016 breeding season to determine if the smooth newt is persisting in Melbourne. Bait traps, dip netting, electrofishing and e-DNA analysis were used.

The surveys confirmed the smooth newt was still persisting and breeding in suburban waterways, but had not yet spread widely. There was still time to act to eradicate the newt, but first more information was needed to confirm the full extent of the infestation.

With funding from the Lord Mayor's Charitable Foundation, the Helen Macpherson Smith Charitable Trusts and Melbourne Water, in 2019 we teamed up with Monash University to conduct a full environmental DNA survey of the waterways over a large area to narrow down the area occupied by the smooth newt. This work confirmed that the newt's spread has been limited. They occupy an area of only about 6km² and eradication may still be possible. The Monash team is now undertaking a small-scale trial of control methods to work out how best to achieve eradication.

### What's next?

We are now seeking funds to expand and complete the eradication trial. If the eradication methods are shown to be viable, a case for full eradication will be presented to the Victorian Government.

## **Containment: Feral deer**

Thanks to the help of our supporters the Invasive Species Council has enjoyed a strong track record of triggering political action. On the issue of feral deer, this response has been urgently needed, with plagues of deer now recognised as Australia's worst emerging pest animal problem.

Across New South Wales and Victoria, we have played a critical role in shifting a hunter-orientated mindset of governments. Our work with farmers and local councils over many years has led to the NSW Government removing the protected status of feral deer, enabling this pest to be managed like any other and ending a management regime that protected deer purely as a resource for hunters.

In October 2020, after pressure from ourselves and the Victorian National Parks Association, the Victorian Government released a new deer control strategy that for the first time reflects the fact deer must be managed to limit their impacts. Then in December 2020, the state government announced \$18.25 million for deer control, to be used over the next four years. This commitment is a clear sign of a willingness to mitigate the impacts of feral deer.

We established a deer project officer in Victoria in November 2020 to improve our ability to advocate for more effective deer control policy and actions and build relationships among those concerned about the impacts of feral deer. Special thanks to The Ross Trust for funding this role so far.

**UPDATE:** In November 2021, the Victorian Government released its final feral horse plan for the Alpine National Park, recognising the importance of integrating feral deer control with control of feral horses.

In Tasmania, we teamed up with the Bob Brown



## Are you based in Tasmania?

Help keep track of deer distribution by becoming a Tassie deer spotter on iNaturalist. The information you supply by reporting sightings of feral deer will be fed into national scientific databases and help contribute to our knowledge about the spread of deer in Tasmania: www.inaturalist.org/projects/tassie-deer-spotters



The Bob Brown Foundation commissioned the Invasive Species Council to write a thorough, evidence-based strategy outlining the problem with feral deer in Tasmania and proposing a solution. Bob and I could not be happier with the result. It is exactly what we hoped for, a national perspective and Tasmaniaspecific solution. The strategy will be widely used by NGOs and policy makers across Australia. Congratulations to Peter Jacobs and the team for making such a great contribution to tackling the problem of feral deer.

Christine Milne AO, Invasive Species Council Ambassador



ISC has made huge inroads into raising awareness of the impacts of feral deer, the need for effective control and presenting solutions. In Victoria we have been instrumental in establishing a new Victorian Deer Control Community Network and positioning ourselves with government to influence deer control policy and planning. In Tasmania we showed leadership by presenting a strategy to the Tasmanian Government and community that outlined an achievable way forward to deal with the wicked and divisive problem of feral deer.

**Peter Jacobs** 

Foundation to develop the way forward for the Tasmanian Government, which has been reluctant to act to control exploding feral deer populations and stop the spread of deer into the Tasmanian Wilderness World Heritage Area and other special places. Our landmark report, Feral Deer Control: A Strategy for Tasmania, was released in August 2021 and identifies a clear pathway for how Tasmania can apply a biosecurity-focused approach to the management of feral deer and provides steps to remove deer from all but the traditional deer range where they were found many decades before.

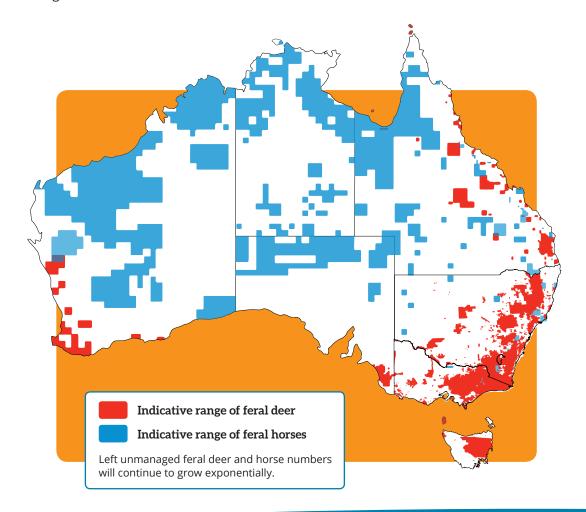
**UPDATE**: In November 2021, due to our strategy and resulting pressure, the Tasmanian Government released its own draft deer management plan. While this plan set aside areas for deer eradication and acknowledged that this issue cannot be managed by hunters alone, it falls well short of solving this issue — having no mention of environmental impact, no targets, no measurements, no timeline and no budget commitment. Most disturbing, it endorses the retention of feral deer in the Tasmanian Wilderness World Heritage Area.

We have achieved momentum at a national level, with the appointment of Australia's first ever national deer coordinator in August 2020. This role will coordinate action to tackle feral deer populations and reduce the damage feral deer cause to Australia's agricultural businesses and environment.

We still have work to do – Victoria and Tasmania still list deer as protected or partially protected wildlife for game purposes and the Tasmanian Government has released a weak draft plan that has little chance of working. So much is at risk, right now, you would struggle to find a national park free of feral deer in Victoria. Sadly, in Tasmania, these invasive species have moved into the iconic Walls of Jerusalem National Park and without decisive action will occupy the area traversed by the Overland Track in Cradle Mountain – Lake St Clair National Park. Our supporters play a vital role in allowing us to continue these campaigns.

### What's next?

We have the science to guide us but over the year ahead, we need the resources to educate Australia on this huge issue and work to protect Australia's incredible national parks, world heritage sites and other bushland areas from the impacts of feral deer.



Australia is losing its natural ecosystems. It's particularly confronting entering a national park and recognising the dominance of non-native plants and evidence of introduced animals. I wasn't fully aware of this threat until completing my science degree and undertaking surveys and monitoring in protected areas. While horse management is politically and socially challenging, what is promising is that horses are a slowbreeding, introduced species - making containment and eradication possible. That is, if early intervention and control occurs. Reclaim Kosci is applying the necessary pressures to get integrated horse management back on the table to not only benefit Kosciuszko, but all the other reserves in NSW affected by wild

**Candice Bartlett**, conservation officer at the Invasive Species Council



Kosciuszko National Park. Photo: Mike Bremers

## **Containment: Reclaim Kosci, feral horses**

Co-founded in 2018 and led by the Invasive Species Council, the Reclaim Kosci campaign has built a strong people movement demanding action on feral horses in Kosciuszko National Park.

The Reclaim Kosci campaign is leaving no stone unturned as we continue to build the case for science-based feral horse management in Kosciuszko National Park. In mid-2021 we published an economic report by Frontier Economics calculating the benefits of feral horse control in Kosciuszko as up to \$50 million a year.

**UPDATE:** Our campaign has paid off in the halls of power. On Thursday, 24 November the 'Kosciuszko Wild Horse Heritage Management Plan' was finalised and adopted by the NSW Government. Overall, 4,066 submissions were reviewed for this plan, and while we don't have the breakdown, a large part of this response was due to the thousands of Australian's we were able to encourage and guide through the submission making process.

The final plan is largely the same as the draft plan, with a few minor changes, including the expansion of horse removal zones to protect the Cooleman and

Yarrangobilly limestone areas. However, the new plan will reduce the horse population from ~14,000 to 3,000 over just 5 years. Given the slow removal rates over the past 20 years, if achieved, this would be a significant improvement for horse control in the park.

We remain deeply disappointed regarding the retention of feral horses in one third of the park. This locks in damage to the Byadbo and Pilot wilderness areas in the park's south, threatens the Jagungal wilderness area, wetlands such as the vast Currango peat wetlands in the north and critical habitat of threatened species such as the northern corroboree frog, stocky galaxias and the lovable broadtoothed rat.

### What's next?

Knowing how volatile the political environment is, we need to continue to work to ensure the NSW Government follows through with this plan, despite any noise from opponents, and that this important work is not slowed down. To ensure all of our work to date is worthwhile, continued support from our generous donors is needed.

We have a lot of species unique to Kosciuszko National Park that are found nowhere else in the world. Poem or no poem let's focus on protecting them for a change and getting all feral animals, including horses, out of what's left of our native habitat. I am grateful to the Invasive Species Council and its supporters for leading and championing this important campaign.

#### Richard Swain,

Indigenous ambassador for the Invasive Species Council, Snowy Mountains river guide of 27 years and a member of the Dabee clan of the Wiradjuri nation



To come to Kosciuszko National Park and see the damage that's being wrought by these feral animals has broken my heart. Native vegetation is being trashed and important native species are being put under threat, simply because there are so many of these wild horses here in the park. The science is clear - these horses are damaging one of our most important natural and national assets and we need to do something about it. If you want to see this incredibly beautiful area not destroyed any longer, and the number of horses reduced significantly, you need to be part of the Reclaim Kosci campaign.

**Peter Garrett AM** 

Thanks to our supporters, our calls for science-based feral horse control have continued and are being taken up by more and more powerful voices from across the political divide:



After federal **Environment Minister Sussan Ley** joined us to inspect horse damage in Kosciuszko National Park, she said she was 'extremely angry' at the destruction and threatened to use her federal powers unless NSW took action.



Midnight Oil frontman **Peter Garrett AM** urged all Australians to join our campaign.



An independent poll of Eden-Monaro by-election voters revealed **the majority support a significant reduction in horse numbers**.



**More than 15,000 NSW residents** signed our petition to the NSW Parliament asking the NSW Government to urgently put in place an effective horse management plan.



After organising the Save Kosci protest walk in 2018, I became a Reclaim Kosci volunteer. My volunteer tasks mean I meet a lot of people. It has been really rewarding to see public opinion move more and more to a recognition that urgent action is needed in Kosciuszko to remove feral horses. This was brought home to me in early 2021 when the brumby advocates' electronic petition achieved 4231 signatures, compared to Reclaim Kosci's total of 15,228. It's a privilege to have contributed to this, and to know that my grandchildren will be able to see Kosciuszko in its natural state.

**Linda Groom**, volunteer and donor



## Management: cats and foxes

At least 33 Australian mammal species are extinct – the worst mammal extinction record in the world – 24 mainly because of feral cats and foxes. And they continue to imperil hundreds of other native species.

After the 2020 bushfires, organisations including the Invasive Species Council called for a concerted focus on feral animal control. In fire-denuded landscapes feral cats and foxes can easily pick off small animals struggling to find food and shelter, and feral herbivores such as deer often stymie plant regeneration. We called for aerial control programs targeting feral deer, pigs and goats, and a fast-tracked cat trapping and fox baiting program at threatened mammal sites. In mid-2021, a national feral cat and fox coordinator was appointed to help drive cat and fox control action in bushfire affected areas.

The Invasive Species Council was influential in a 2020 federal parliamentary inquiry into feral cats, particularly in generating recommendations for prioritising action on feral cats, strengthening national threat abatement processes and establishing more cat-free havens on islands.

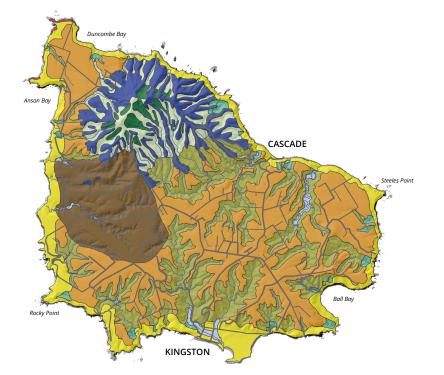
Since 2013 the Invasive Species Council has been a member of the national feral cat taskforce, overseeing threat abatement action on feral cats. The focus on feral cats has mobilised effort across the country, resulted in new control tools and shifted the national debate so that the general public now better accepts the need to control feral and domestic cats.

The Invasive Species Council has worked with several of Australia's leading researchers to identify ways to better protect threatened species from feral cats and foxes:

- Undertake island eradications: Remove cats from islands with high biodiversity values (e.g. breeding seabirds) or where islands can serve as havens for species threatened by cats.
- Prepare for future major bushfires: Be prepared to rapidly install temporary shelters and control measures to protect surviving wildlife from predation by cats and foxes.
- Provide more control tools: Ensure land managers gain access to effective tools to control cats and foxes and support research to develop new control methods.
- Remove legal barriers: Apply standardised rules across Australia that designate feral cats as pests, reduce red-tape preventing the use of traps and toxins and require mandatory domestic cat desexing, microchipping and containment.

### What's next?

We are seeking funds to commence a national feral cat campaign to push for more effective control of feral cats, reduce the impacts from domestic cats and ensure wildlife recovering from bushfires is better protected from predators.



## Norfolk Island Native Plant Communities Present in 1750



# **Ground-breaking project first step to restoring Norfolk Island**

Over two years, we worked with local and mainland experts to create digital maps of what Norfolk Island's forests, woodlands and grasslands looked like before Europeans arrived on the island and what that landscape looks like now.

Our detailed analysis included searching through old photo and illustration archives, extensive field work, interviews with locals about remnant native plant communities and flying aerial drones across the island to map out the current landscape.

There are about 180 native plant species on Norfolk Island, of which about a quarter are found nowhere else on the planet and 46 are listed as threatened.

Another 430 plant species have been introduced to the island, some have become environmental weeds that have pushed out native species. Past land management has meant many native plant species now only remain in small, fragmented pockets of remnant vegetation.

These new maps will play a vital role in helping the island community restore its rich natural heritage and secure a future for many threatened native plants and animals.

The mapping is based on extensive survey work conducted by Naomi Christian, a native Norf'k Islander, and recognised plant ecologist Dr Kevin Mills. Funding was provided through the Eldon and Anne Foote Trust, administered by the Lord

Mayor's Charitable Foundation, the Commonwealth Department of Infrastructure, Transport, Regional Development and Communications, and supported by the Norfolk Island Regional Council.

#### What's next?

This project has unlocked a map that can now be used to help Norfolk Islanders replant and restore many of the threatened native plants and plant communities that are under pressure from weeds and past habitat loss and help secure funding for rodent and cat control programs.

A further grant from the Eldon and Anne Foote Trust has been secured, allowing us to work on strengthening the island's biosecurity and to support the Norfolk Island Regional Council to undertake rodent control in areas where rodents are attacking the endemic green parrot and visiting seabirds. In addition, our work on cat control is continuing thanks to a grant that allows Parks Australia to provide free de-sexing and microchipping of domestic cats and trapping of feral cats.

We will continue to work with Norfolk Islanders to support island recovery efforts as part of our longer-term plan to protect and restore the native plants and animals on the island.



## Weeds and my legacy

We need to be the generation that works to protect Australia's biodiversity before it's too late.

Regulation for invasive species lags far behind that for most other environmental threats. You can't just bulldoze a bush or tip nasty chemicals into a creek. But people are perfectly free to plant any one of thousands of invasive plant species that could degrade or destroy native bush. But regulation is nothing without management action and the record on action is abysmal at all levels of government in Australia, in fact it could hardly be worse.

Most people, including those in conservation organisations, believe that climate change is the BIG conservation issue that we now face. Whatever climate change scenarios are playing out — and they are extremely dire for us and the biota — there will be a large suite of invasive weeds throughout Australia that will do just fine whatever climate we throw at them.

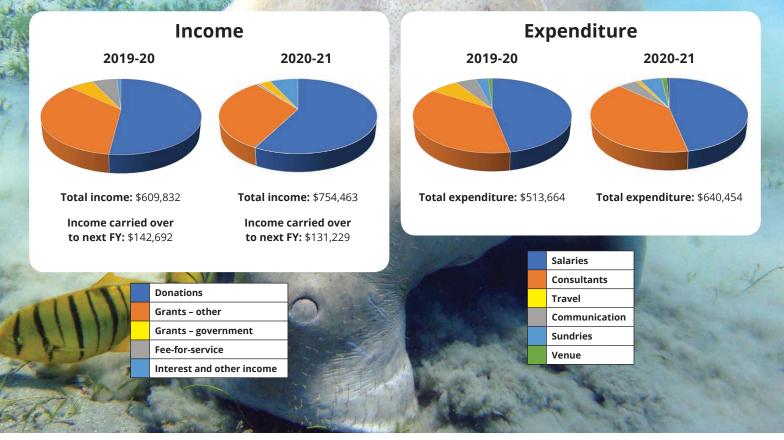
Weeds have and are taking over vast areas, and all ecosystems are ultimately vulnerable. By competition, weeds destroy indigenous vegetation and flora, dependant fauna, and habitats; they don't 'displace' the flora as if it has some vacated alternative home to go to. They kill it, gone, dead, destroyed! On current trends, we stand to lose much of the Australian biota to weed invasions unless appropriate responses manifest. They compete with or smother rare native plants, altering fire regimes and water availability. About 30,000 plant species have been introduced in Australia (more than there are native species) and about 3,000 have established in the wild, more than half of which have invaded natural ecosystems. Weeds are a threat to about 90% of nationally listed threatened ecological communities.

I have chosen to support ISC with a bequest because invasive species are the biggest conservation issue and because ISC is a highly competent and professional organisation whose work is underpinned by science. The work that the organisation is doing now and into the future is being done by no other conservation NGO; invasives hardly rate a mention in these quarters, except perhaps for predators such as cats and foxes, and that sends a bad message that we don't need to pay too much attention to the issue of environmental weeds.

Australia is a very special place, as abundantly recognised by the international scientific community. It is a global hotspot of biodiversity (not just the Great Barrier Reef and the glories of the south west Western Australia flora) and endemism. Will the next generation remember us as those who did what was needed to save it?

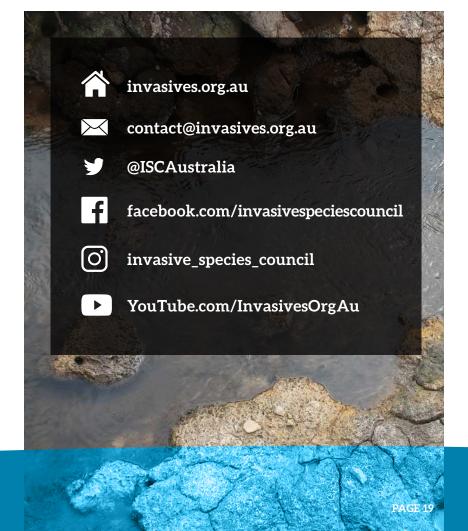
Geoff Carr, Senior Botanist, Ecology Australia

# Yearly income and expenditure



Note: A summary of our financial accounts, our audited full accounts are available on request.





Under Andrew Cox's leadership, the *Invasive Species* Council has grown to become an influential and effective voice on invasive species issues. It led complex advocacy and lobbying work that has secured more than \$400 million from all state and federal governments to eradicate the extraordinarily noxious fire ants. It's driven stronger action on deer and feral horses. It has been critical in improving the overall national biosecurity system, including the establishment of the Chief **Environmental Biosecurity** Officer, the invasive insect risks and pathways project and an increased focus on environmental biosecurity by state and federal governments.

**Dr Barry Traill** 

The nationally endangered Norfolk Island green parrot is threatened with predation by cats and rats. The Invasive Species Council has created the first island-wide vegetation map to assist with future pest and wed control. Photo: Luis Ortiz-Catedral



## The Invasive Species Council's work is far from done.

Right now, invasive animals, weeds and diseases are Australia's highest impact threat to native species – higher than any other environmental threat.

The Invasive Species Council is Australia's only environmental organisation dedicated to strategically tackling this issue and has a strong track record of successfully campaigning for action to safeguards our environment from invasive species.

We have the solutions, powerful alliances and a willing federal government. What we need now is investment from the philanthropic community to catalyse strong, collaborative biosecurity to protect and restore what makes Australia extraordinary – our unique wildlife and habitats.

Please donate towards the Invasive Species Council's vital work today. invasives.org.au/donate



